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#### Unmanned Systems Technology

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

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

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

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

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

Sincerely,

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.

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

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

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

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

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

Last year, KCTCS trained and educated:

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

KCTCS colleges offer a wide range of student services. The majority of our students receive federal financial aid and a variety of need and merit-based scholarships. KCTCS colleges are also the best value in postsecondary education in Kentucky, with the lowest tuition in the Commonwealth. Students pay less than half the cost of the state’s public four-year universities.

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

To learn more about KCTCS, visit kctcs.edu.

Mission Statement

Kentucky Community and Technical College System

In everything we do, our mission is to improve the quality of life and employability of the citizens of the Commonwealth by serving as the primary provider of:

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

Academic Calendar

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

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

The following closings are applicable to all KCTCS institutions:

July
3  Independence Day observed

September
7  Labor Day

November
3  Presidential Election
26 Thanksgiving Day
27 Day After Thanksgiving

December
21 Institutional Closing
22 Institutional Closing
23 Institutional Closing
24 Institutional Closing
25 Institutional Closing
28 Institutional Closing
29 Institutional Closing
30 Institutional Closing
31 Institutional Closing

January
1  Institutional Closing
18 Martin Luther King Day

February
15 President’s Day

April
2  Good Friday (1/2 Day)

May
31 Memorial Day
KCTCS Leadership*

*This page reflects KCTCS leadership as of July 1, 2020

KCTCS Board of Regents
Dr. Gail R. Henson, Chair
Ms. Lisa V. Desmarais, Vice Chair
Dr. Wynetta J. Fletcher, Secretary
Mr. Damon V. Allen
Ms. Karen A. Finan
Dr. Angela Fultz
Mr. Christopher J. Girdler
Mr. Jonathan K. McDermott
Ms. Marcia L. Roth
Mr. James Lee Stevens
Mrs. Jacqueline D. Teehan
Ms. Tammy C. Thompson
Mr. Mark A. Wells
Vacant, KCTCS Staff Regent

Foundation Board of Directors
Barry S. Bishop, Chair
Anthony Campbell, Treasurer
Whitney Greer, Secretary
Lee Lingo
John L. Gohmann
Scott Seger
Dr. Ty Handy
Dr. Gail R. Henson, Ex-Officio Members
Dr. Jay Box, Ex-Officio Members
Ben Mohler, Ex-Officio Members

President
Dr. Jay K. Box

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

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

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

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

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

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

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

Henderson Community College
Dr. Jason Warren
President/CEO

Hopkinsville Community College
Dr. Alissa Young
President/CEO

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

Madisonville Community College
Dr. Cynthia Kelley
President/CEO

Maysville Community and Technical College
Mr. Russ Ward
Interim President/CEO

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

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

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

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

West Kentucky Community and Technical College
Dr. Anton Reece
President/CEO
Mission Statement/Status of Accreditation


Ashland Community and Technical College is strengthening our communities by providing certificate, diploma, and associate degree programs that prepare students for employment or transfer to baccalaureate programs as well as enhance job skills through workforce training.

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

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

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

Academic Programs

Transfer Curricula

Associate in Arts
Associate in Science

Occupational/Technical Curricula

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

Advanced Integrated Technology (C, A)
Air Conditioning Technology (C, D)
Appalachian Studies (C)
Applied Process Technologies (C, A)
Automotive Technology (C, D)
Business Communications (C)
Business Foundations (C)
Business Studies:
  Administrative Office Technology (C, D, A)
  Business Administration (C, D, A)
  Certified Medical Technician (C)
  Computer Aided Drafting and Design (C, D)
  Computer and Information Technologies (C, D)
  Computerized Manufacturing and Machining (C, D)
  Cosmetology (C, D)
  Criminal Justice (A, C)
  Culinary Arts (C, D, A)
  Diesel Technology (C, D)
  Digital Printing Technology (C)
  Emergency Medical Services – Paramedic (D)
  Emergency Medical Technician (C)
  Energy Technologies (C)
  Fire Science Technology (C, D, A)
  General Occupational/Technical Studies (A)
  Health Science Technology (A)
  Interdisciplinary Early Childhood Education (C, D, A)
  Manufacturing Industrial Technology:
    Electrical Technology (C, D)
    Industrial Maintenance Technology (A, C, D)
  Marine Technology (C)
  Medical Assisting (C)
  Medical Information Technology (C, D, A)
  Medical Laboratory Technician (C)
  Nursing (A)
  Nursing Assistant – Advanced (C)
  Practical Nursing (C, D)
  Respiratory Care (A)
  Surgical Technology (D)
  Truck Driver Training (C)
  Welding Technology (C, D)

Contact Information

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

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

General Information

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

Administration

President – Dr. Larry Ferguson (606) 326-2043
Dean of Academic Affairs/CAO – Dr. Todd Brand (606) 326-2163
Dean of Business Affairs – Karen Blevins (606) 326-2063
Director of Advancement – Brooke Seabor (606) 326-2092
Dean of Institutional Planning, Research and Effectiveness – Steve Flouhous (606) 326-2055
Dean of Student Success and Enrollment Services – Steven Woodburn (606) 326-2077
Associate Dean of Information Technology – Farrohaf Rafiee (606) 326-2069
Registrar/Director of Admissions – Robin Lewis (606) 326-2423
Director of Financial Aid – Adam Chapman (606) 326-2114
Director of Cultural Diversity – Al Baker (606) 326-2422
Faculty
Allen, Joseph D, Instructor, MSN, Chamberlain College of Nursing, 2015
Alley, Alan C, Professor, DC, Palmer College of Chiropractic, 1998
Bailey, Danny G, Professor, MS, University of Kentucky, 1971
Blair, Kathy L, Associate Professor, MSN, University of Phoenix, 2012
Boggs, Christopher J, Professor, AAS, Institute of Electronics Technology, 1992
Bowman, Curtis D, Professor, Certification, Collins Career Center, 1979
Bradley, John M, Professor, Certification, National Institute for Automotive Service Excellence, 1999
Bradley, Peggy L, Professor, BS, Morehead State University, 1979
Brown, Jesse, Instructor, Certificate, Eastside Center for Applied Technology, 1995
Brown, Sara A, Professor, MSL, University of Kentucky, 2003
Cantrell, Heather, Instructor, AAS, Ashland Community and Technical College, 2008
Carroll, Brigitte Lee, Assistant Professor, BSN, Mountain State University, 2008
Cassady, Jeffrey M, Associate Professor, AAS, Ashland Community and Technical College, 2013
Chambers, Jeffrey, Instructor, BSN, Ohio University, 2017
Childress, David C, Professor, Morehead State University, 1985
Collins, Anne Marie, Assistant Professor, Certification, Bellevue Beauty College, 2005
Conley, Richard R, Professor, MS, University of Kentucky, 1973
Cullum, Randolph, Associate Professor, MA, Marshall University, 1981
Davis, Virgil K, Professor, MA, Morehead State University, 1986
Dillow, Michelle, Instructor, BSN, Ohio University, 2014
Edwards, Kathryn Marie Tucci, Professor, MA, Marshall University, 1991
Flath, Mary C, Professor, PhD, Medical University of South Carolina, 1991
Flouhous, Steven D, Professor, MA, Marshall University, 1991
Fosterwelsh, Wendy, Professor, MFA, Georgia Southern University, 2004
Frye, Berdie E, Professor / Librarian I, MLS, University of South Carolina, 1989
Galloway, Chelsey, Instructor, MS, Grand Canyon University, 2019
Green, Melissa, Instructor, BS, East Carolina University, 1992
Hall, James C, Associate Professor, MA, University of Louisville, 2014
Hall, Ralfred J, Professor, MS, Morehead State University, 1993
Hankins, Shannon, Instructor, PhD Ohio University 2015
Henderson, Lisa Marie, Instructor, PhD, University of Phoenix, 2013
Henry, Harold Edmond, Associate Professor, AAS, Ashland Technical College, 2002
Howard, Warren H, Professor, MA, Morehead State University, 2003
Howerton, Deanna, Assistant Professor, BSN Bellarmine College, 2002
James, Jesse J, Associate Professor, AAS, Ashland Community and Technical College, 2010
Joy, Jonathan, Associate Professor, MA, Marshall University, 2004
Justice, Debra, Professor, MA, Marshall University, 1997
Klinepeter, Pamela, Professor, MLS, University of Kentucky, 2005
Kumar, Ramamurthy Chandra, Professor, MS, Florida Institute of Technology, 1986
Martin, Frances, Professor, AME, Morehead State University, 1994
McCarty, Shannon, Associate Professor, Certificate, Collins Career Center, 1990
McCumbee, Jame, Professor, MA, Marshall University, 1995
McGinnis, Vicki, Associate Professor, MA University of Kentucky, 1994
Meadows, Kayla, Assistant Professor, MS, Eastern Kentucky University, 2015
Mengistu, Aschalew, Associate Professor, PhD, University of Wales College of Medicine, 2002
Merritt, Richard P, Associate Professor, MA, Marshall University, 2011
Mohebian, Hossein, Professor, MA, Marshall University, 1983
Morrison, Seth, Instructor, BA, Education, Marshall University, 2001
Osborne, Lydia Gail, Instructor, MSN, Walden University, 2015
OuldMoulaye, Youba OuldSidna, Instructor, MBA Ashford University, 2012
Pancake, Danny, Associate Professor, Certificate, Machine Operator, Jackson Manpower, 1975
Pfau, Matthew Scott, Instructor, BS, Morehead State University, 2017
Rafiee, Farah, Professor, MA, Marshall University, 1982
Ratliff, Terri Lynn, Associate Professor, BSN, Marshall University, 1993
Riggs, Mark, Professor, MS, Mississippi State University, 2000
Riggs, Sonya, Instructor, AND, University of Rio Grande, 2017
Robinson, Natalie, Associate Professor, BSN, Bellarmine University, 2007
Shaffer, Misty, Instructor, BSN, Ohio University, 2016
Sharp, Beverly Ann, Instructor, BS, Marshall University
Shelton, Cynthia, Professor, AME, Marshall University, 1992
Skidmore, Ashley, Associate Professor, MA, University of Kentucky, 2006
Smith, Mark S, Assistant Professor, BS, Morehead State University, 1999
Smith, Mourine K, Associate Professor, AAS, Somerset Community College, 2010
Stevens, Tyler B, Assistant Professor, AAS, Ashland Community and Technical College, 2009
Stewart, Courtney Brooke, Instructor, AS, Ashland Community and Technical College, 2015
Tackett, Michael B, Assistant Professor, AS, Ashland Community and Technical College, 2008
Thompson, Janet C, Assistant Professor, MS, Marshall University, 2013
Tussey, Laura L, Associate Professor, MA, Marshall University, 2000
Wallace-Vernatter, Susan Y, Assistant Professor, BS, Bellevue University, 2008
Wheeler, Thomas, Assistant Professor, Certification, Ashland State Vocational, 1986
Mission Statement/Status of Accreditation

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

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

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

Academic Programs

Transfer Curricula

Associate in Arts
Associate in Science

Occupational/Technical Curricula

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

Agriculture (C)
Air Conditioning Technology (C, D, A)
Applied Engineering Technology (C)
Auto Body/ Collision Repair Technology (C, D)
Automotive Technology (C, A)
Broadband Technology (C, A)
Business Communications (C)
Business Foundations (C)
Business Studies:
   Administrative Office Technology (C, D)
   Business Administration (C, D, A)
Civil Engineering Technology (C, A)
Computer Aided Drafting and Design (C, D, A)
Computer and Information Technologies (C, A)
Computerized Manufacturing and Machining (C, D, A)
Construction Technology (C, D)
Cosmetology (C, D)
Criminal Justice (C, A)
Culinary Arts (C, D)
Dental Assisting/Dental Hygiene (D, A)
Diesel Technology (C, D)
Education (C, A)
Emergency Medical Technician (C)
Energy Technologies (C)
Engineering and Electronics Technology (C, D, A)
Fire 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)
Medical Information Technology (C, D, A)
Mining Technology (C, A)
Nursing (A)
Nursing – Academic/Career Mobility (A, D)
Nursing Assistant – Advanced (C)
Physical Therapist Assistant (A)
Practical Nursing (C, D)
Plumbing (C)
Respiratory Care (C, A)
Surgical Technology (D, A)
Truck Driver Training (C)
Visual Communication
   Design and Technology (C, D, A)
   Multimedia (C)
   Printing (C, D)
Welding Technology (C, D, A)

Contact Information

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

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

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

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

General Information

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

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

Administration

President
Dr. Sherry Zylka

Chief Financial Officer
Michelle Meek

Provost/Chief Academic Officer
Dr. Denise King

Dean of Strategic Initiatives
Myra Elliott

Dean of Information Technology & Facilities Mgmt
John Herald

Chief Student Affairs Officer
Jimmy Wright

Director of Business/Industry Development
Judy Daniel

Interim Director of Community Education & Workforce Development
 Rachelle Burchett

Director of Enrollment Management
Billie Jean Cole

Director of East KY Science Ctr and Planetarium
Steven L. J. Russo

Director of Financial Aid
Cathy Hurd-Crank

Director of Grants Development
Connie Estep

Director of Human Resources
Krystal Tackett

Director of Information Technology
Casey Music

Director of Institutional Effectiveness
Denise Atkinson

Director of Library Services
Judy Howell

Director of Performing Arts/Executive Director of the Mountain Arts Center
Joe Campbell

Director of Safety & Security
Randell Haney

Director of Strategic Communications
Greta Slone


Faculty

Adam, Kelly J, Professor, MS, Southern Connecticut State University, 1993
Allen, Collisa, Associate Professor, MSN, University of Phoenix, 2013
Baldridge, Harold, Assistant Professor, BS, University of Kentucky, 1968
Ball, Tammy, Professor, MSSW, University of Louisville, 1996
Barlow, Donald L, Associate Professor, PhD, Ball State University, 1987
Bays, Leslie M, Assistant Professor, MA, Morehead State University, 2010
Bell, Daniel E, Professor, MA, Northern Illinois University, 1986
Bennin, Hope E, Professor, MA, University of Wisconsin, 1987
Briggs, Angela D, Instructor, BS, Western Kentucky University, 2019
Brooks, Michael Aaron, Instructor, AAS, Big Sandy Community & Technical College, 2017
Cantrell, Etta L, Professor, MHE, Morehead State University, 1985
Carroll, Charlene, Assistant Professor, MSN, University of Kentucky, 1996
Carroll, John, Professor, MA, Morehead State University, 1999
Cole, Elizabeth M, Professor, MA, University of Iowa, 1989
Compton, Joseph L, Professor, BS, Morehead State University, 2013
Conn, Stefania, Assistant Professor, MAE, Western Kentucky University, 2016
Davis, Brandy L, Instructor, MA, Western Kentucky University, 2006
Dempsey, Jeremy, Associate Professor, MA, Marshall University, 2005
Dickerson, Cindy, Associate Professor, MA, Morehead State University, 2008
Durham, Roberta, Assistant Professor, BSN, Morehead State University, 2009
Elliott, Myra T, Professor, MSN, University of Kentucky, 1993
Fields, Carmen, Associate Professor, BS, Western Kentucky University, 2013
Fields, Michelle, Professor, MA, Marshall University, 1995
Fitzpatrick, John J, Lecturer, BS, Morehead State University, 2013
Gambill, Jessica, Assistant Professor, MA, Union College, 2004
Gillis, Bill R, Professor, PhD, Florida State University, 1990
Hackney, Randal Clinton, Assistant Professor, MS, Morehead State University, 2007
Haney, Randell O, Professor, BS, Morehead State University, 2011
Harless, Irma Kay, Associate Professor, BSN, Morehead State University, 2013
Hicks, Jeffrey T, Professor, MA, Morehead State University, 2000
Howard, Jerry, Professor, MA, Union College, 2006
Howell, Judy K, Professor/Library I, MA, University of Kentucky, 1992, MSLS, University of Kentucky, 1994
Jackson, Patricia J, Professor, DNP, University of Kentucky, 2008
Jacobs, Sabra P, Professor, MA, Bowling Green State University, 1989
Jervis, Monica R, Instructor, BS, Eastern Kentucky University, 2017
Keathley, Heath, Assistant Professor, AAS, Big Sandy Community & Technical College, 2013
Keaton, Jill E, Assistant Professor, DMD, University of Kentucky, 1990
Kinner, DeWayne, Instructor, Diploma, Big Sandy Community & Technical College, 2003
Lafferty, Natasha E, Instructor, AS, Pikeville College, 1998
LeBrun, Terri E, Professor, MS, Morehead State University, 2009
Lewis, Lori Deanne, Professor, BS, Morehead State University, 2011
Linkous, Scott W, Instructor, Diploma, Big Sandy Community and Technical College, 1994
Little, Conda G, Professor, MA, Morehead State University, 2001
Madden, Darrell E, Associate Professor, MBA, University of Kentucky, 1980
Matijasic, Thomas D, Professor, PhD, Miami University, 1982
Maynard Jr, John L, Professor, AAS, Big Sandy Community and Technical College, 2008
McClure, Jimmy, Associate Professor, BS, Morehead State University, 2011
McGinnis, Leslie Adam, Instructor, AAS, Big Sandy Community and Technical College, 2018
McKenzie, Cynthia L, Professor, MBA, Morehead State University, 2001
McKenzie, Keithen Douglas, Professor, MS, Morehead State University, 2003
McKenzie, Martha, Professor, MA, Morehead State University, 2012
McKenzie, Vanessa Jean, Professor, MS, Morehead State University, 2005
Miller, Kathryn L, Professor, EdD, Morehead State University, 2015
Moore, Charles K, Professor, AAS, Big Sandy Community & Technical College, 2007
Mullins, Rebecca Ann, Professor, MA, Morehead State University, 2003
Music, Lisa J, Professor, PhD, University of Louisville, 2013
Ousley, Tina Lee, Professor, MS, Morehead State University, 2003
Pack, Diana I, Professor, MA, Morehead State University, 2003
Proffitt, Alan David, Professor, DMin, Asbury Theological Seminary, 2014
Ratliff, Toddie, Associate Professor, MSN, Kaplan University, 2010
Ray, Pamela, Associate Professor, BS, Western Kentucky University, 2013
Redmiles, Lisa P, Instructor, MAE, Eastern Kentucky University, 2011
Roe, Richard T, Lecturer, EdD, University of Kentucky, 2011
Saad, Sandra, Professor, MA, University of Kentucky, 1987
Saad, Toufic A, Professor, MS, University of Kentucky, 1988
Skeens, Melissa B, Professor, BA, Morehead State University, 2010
Slone, Greta, Associate Professor, MA, Trinity College, 2003
Smallwood, Patsy, Assistant Professor, AAS, Big Sandy Community & Technical College, 2016
Smith, Dwight P, Professor, MA, Bowling Green State University, 1979
Smith, Hubertien, Instructor/Library IV, MLIS, University of North Carolina at Greensboro, 2018
Smith, Matthew, Associate Professor, MA, East Tennessee State University, 2009
Smith, Timothy, Associate Professor, MFA, University of North Carolina at Greensboro, 1993
Sofyan, Agus, Associate Professor, PhD, University of Kentucky, 2004
Sykes, Pamela J, Professor, MA, Morehead State University, 2002
Thacker, Joshua, Associate Professor, MAT, Morehead State University, 2008
Thompson, Paula B, Professor, MBE, Morehead State University, 1992
Turner, Garrison, Assistant Professor, MS, Ball State University, 2011
VanHoose II, Charles W, Associate Professor, AAS, Big Sandy Community & Technical College, 2012
Varney, Lesley Dean, Associate Professor, BS, Eastern Kentucky University, 1980
Vierheller, Cenhao, Professor, PhD, Ohio University, 1991
Vierheller, Thomas L, Professor, PhD, Ohio University, 1990
Wallen, Mary Stepp, Professor, MA Indiana State University, 1997, MFA Southern Illinois University-Carbondale, 2003
Watts, Randall L, Professor, MS, Eastern Kentucky University, 1991
Wells, Mark A, Professor, MA, Eastern Kentucky University, 1997
Williams, Robyn J, Instructor/Library IV, MS, University of Tennessee, 2000
Wright, Randall Keith, Assistant Professor, AAS, Big Sandy Community & Technical College, 2015
Bluegrass Community and Technical College

Mission Statement/Status of Accreditation
Bluegrass Community and Technical College (BCTC) transforms the Bluegrass Region—one student, one employer, and one community at a time. With students at the heart of our mission, BCTC supports student access, success, and completion of educational goals through comprehensive services, high-quality career and technical education for workforce skills, transfer education for baccalaureate degrees, and life skills development.

BCTC promotes cultural awareness and inclusion, critical thinking, and civic responsibility. Through excellence in teaching and learning and strong partnerships, BCTC supports regional economic vitality and quality of life as a member college of the Kentucky Community and Technical College System awarding associate degrees, diplomas, and certificates.

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

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

Academic Programs

Transfer Curricula
Associate in Arts
Associate in Science

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

Filmmaking and Cinematic Arts (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)
Apprenticeship Studies (A)
Architectural Technology (A)
Automotive Technology (C, D, A)
Biotechnology Laboratory Technician (C, A)
Business Studies:
  Administrative Office Technology (C, D, A)
  Business Administration (C, A)
  Supply Chain Management (C, A)
Civil Engineering Technology (C, A)
Computer Aided Drafting and Design (C, D, A)
Computer and Information Technologies (C, A)

Contact Information

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

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

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

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

Computerized Manufacturing and Machining (C, D, A)
Construction Technology (C, D, A)
Cosmetology (C, D)
Criminal Justice (C, A)
Dental Hygiene (C, A)
Diagnostic Medical Sonography (A)
Diesel Technology (C, A)
Education (A)
Emergency Medical Services – Paramedic (C, A)
Energy Technologies (C)
Engineering and Electronics Technology (C, D, A)
Environmental Science Technology (A)
Environmental Technology (C)
Equine Studies (C, D, A)
Fire Science Technology (C, D, A)
General Occupational/Technical Studies (A)
Graphic Design and Library Technologies (C, A)
Health Science Technology (A)
Human Services (C, A)
Integrated Engineering Technology (C, A)
Interdisciplinary Early Childhood Education (C, D, A)
Manufacturing Engineering Technology (C)
Manufacturing Industrial Technology:
  Electrical Technology (C, D, A)
  Industrial Maintenance Technology (C, D, A)
Medical Assisting (C, D, A)
Medical Information Technology (C, D, A)
Nursing (A)
Pharmacy Technology (C, D)
Radiography (A)
Respiratory Care (C, A)
Security Management (C)
Surgical Technology (A)
Welding Technology (C, D, A)
Lawrenceburg Campus
1500 Bypass North US 127
Lawrenceburg, KY 40342-9465
(502) 839-8488
bluegrass.kctcs.edu

Winchester-Clark County Campus
2020 Rolling Hills Lane
Winchester, KY 40391-6078
(859) 737-3098
bluegrass.kctcs.edu

Additional Sites

Newtown North Campus
Adult Education Building
690 Newtown Pike
Lexington, KY 40508-1207
(859) 246-6611

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

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

Phone Numbers

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

Administration

President/CEO
Dr. Koffi C. Akakpo

Provost
Dr. Greg Feeney

Associate Vice President, Academics and Workforce Development
Dr. Karen Mayo

Dean of Academics
Tammy Liles

Dean, Workforce Development
Pan Hatcher

Dean, Academic Support
Dr. Rebecca Simms

Vice President, Student Development and Enrollment Management
Dr. Palisa Williams-Rushin

Vice President Advancement and Organizational Development
Mark Manuel

Vice President, Finance and Operations
Lisa Bell

Chief Officer, Public Information and Marketing
Mark Manuel

Chief Development Officer
Dr. Laurel Martin

Associate Vice President, Diversity, Equity and Inclusion
Taran McZee

Associate Vice President for Institutional Development
Deborah Catlett

Associate Vice President, Strategic Communications
Michelle Sjogren

Faculty

Adair, Gerald M, Associate Professor, MA, Florida Atlantic University, 2000
Adkins, Justin, Instructor, MS, University of Kentucky, 2014
Akins, Marilyn, Associate Professor, PhD, Cornell University, 1993
Anderson, Stephanie A, Associate Professor, BA, University of Kentucky, 1987
Baker, Lucinda, Associate Professor, MA, Ohio University, 1997
Baker, Ashley, Instructor, BSN, Eastern Kentucky University, 2005
Baker, Melinda, Assistant Professor, DNP, University of Kentucky, 2013
Ball, Andrew Barrett, Associate Professor, MA, University of Kentucky, 1988
Barber, Antonio, Instructor, MS, Eastern Kentucky University, 2013
Barber, Cynthia E., Professor, MAT, University of Kentucky, 1984
Bell, Mark, Professor, M.S. University of Baltimore, 1994
Benton, Michael D, Associate Professor, MA, Bowling Green State University, 2000
Biega, Robert J., Associate Professor, MAEd, Eastern Kentucky University, 1998
Binzer, Michael A, Associate Professor, BS, University of Cincinnati, 1987
Birch, Timothy E, Associate Professor, MFA, University of Kentucky, 2012
Blaydes, Mary, Professor, MS, University of Kentucky, 2002
Boes, Don, Associate Professor, MFA, Indiana University, 1985
Bond, Sarah, Instructor, MSG, Northern Kentucky University, 2016
Bottoms, Tabitha, Instructor, AAS Somerset Community College, 2012
Bradley, James W, Associate Professor, MS, University of South Carolina, 1999
Breeding, Sharon K, Professor, MA, Morehead State University, 1983
Bromner, Nancy, Professor, MSN, University of Kentucky, 1979
Brown, Dana, Associate Professor, BS, Murray State University, 2002
Buckner, Terry, Professor, MSLS, University of Kentucky, 2001
Bukowski, Susan, Associate Professor, MSN, Wichita State University, 1999
Campbell, Lauren, Assistant Professor, MBA, Eastern Kentucky University, May 2013
Casey, Crystal, AS, Eastern Kentucky University, 2003
Cavillo, Morgan, BS, Spencerian College, 2016
Chirwa, Robert M, Professor, MS, University of Kentucky, 1990
Clark, Jamie, Associate Professor, BBA, Morehead State University, 2002
Clifford, Holly, Assistant Professor, MS, Eastern Kentucky University, 2015
Coffey, Bobby J, Associate Professor, MS, Eastern Kentucky University, 2006
Congleton, Yasmine, Professor, PhD, University of Kentucky, 2005
Cook, Kara Lynne, Assistant Professor, MS, Brigham Young University, 1996
Craft, Saretta, Assistant Professor, MS, University of Kentucky, 2003
Craycraft, Kevin, Professor, AAS, Central Kentucky Technical College, 2005
Cross, Maureen Elizabeth Tobin, Professor, MSSS, Louisiana State University, 2004
Davis, James Scott, MS, Assistant Professor, University of Nebraska at Kearney, 2015
Davis, Jody, MSN, Kaplan University, 2016
Davis, Timothy J, Professor, MFA, University of Southern Mississippi, 1997
Davis, William, Professor, MAEd Georgetown College, 1995
Disco-Boggs, Tamara, Associate Professor, BS, University of Kentucky, 1981
Druggan, Tamarra, Associate Professor, MS, University of Oklahoma, 2008
Dunn, Kevin R, Professor, EdD, University of Kentucky, 2017
Durham, Jeffrey L, Associate Professor, BA, University of Kentucky, 1992
Eldridge, Brent A, Professor, PhD, University of Kentucky, 2014
Elsey, Barbara, Professor, MA, University of Kentucky, 1997
Embry-Bailey, Nolen, Professor, MA, University of North Alabama, 1979
Fairchild, Virginia R, Professor, MBA, Eastern Kentucky University, 1993
Farrell, Carla, Instructor, MSN, Indiana Wesley University, 2016
Fenton, James P, Associate Professor, PhD, Columbia University, 1991
Fitch, Stephanie, Associate Professor, MA, Communication, Regent University, 2003
Franklin, William, Assistant Professor, BS, University of Kentucky, 1992
Frisbie, Elizabeth C, Professor, PhD, Pennsylvania State University, 1987
Galvin, Sarah J, Associate Professor, MSN, University of Kentucky, 2001
Gannon, Shawn, Assistant Professor, AAS KCTCS, BCTC, 2010
Gauthier, Karen, Associate Professor, PhD, University of Kentucky, 2012
Grigsby, Adam, Instructor, AAS KCTCS, BCTC, 2010
Greig, Jasmine, Associate Professor, MS, University of Kentucky, 2004
Hackney, Sandra M, Associate Professor, AAS, Lexington Community College, 1996
Hagan, Kelly, Professor, MA, Ball State University, 1992
Haggerty, Robin, Professor, MA, Indiana University of Pennsylvania, 1993
Halcomb, Don Anthony, Associate Professor, MS, University of Kentucky, 2005
Haley, Rebecca J, Professor, MA, Eastern Kentucky University, 2002
Hardin, Michael, Associate Professor, BS, Eastern Kentucky University, 1993
Harlow, Aaron, Instructor, AAS, Parkland College, 2009
Elizabethtown Community and Technical College

Mission Statement/Status of Accreditation

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

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

Mission Accomplished by providing:

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

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

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

Academic Programs

Transfer Curricula

Associate in Arts
Associate in Science

Occupational/Technical Curricula

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

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

Contact Information

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

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

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

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

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

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

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

Faculty

Albargi, Tammy, Lecturer, MA, Morehead State University, 1994
Anderson, Lor, Instructor, AAS, Elizabethtown Community and Technical College, 2009
Bayes (Figary), Melanie, Instructor, MS, Murray State University, 2019
Barrow, Ramona, Associate Professor, MS, Strayer University, 2004
Beauchamp, Cheryl, Associate Professor, MBA, DeVry University, 2008
Blanks, Rhonda, Professor, MSN, University of Phoenix, 2010
Bradley, Joseph, Instructor, PhD, University of Louisville, 2018
Bratcher, Tracy, Renea, Professor, MA, Western Kentucky University, 1998
Brockman, Douglass W, Associate Professor, AAS/AAT, Elizabethtown Technical College, 2000
Brooks, Joshua David, Instructor, AS, Colorado Technical University, 2014
Brothers, Stephanie, Assistant Professor, BS, University of Louisville, 2011
Brown, Charles J, Professor, MBA, University of Louisville, 1969
Brown, Margaret, Associate Professor, MA, Western Kentucky University, 2007
Brown, Shawn, Associate Professor, MS, Northern Kentucky University, 2014
Bull, Marsha, Instructor, Doctor of Veterinary Medicine, University of Wisconsin, 2014
Burns, Erin, Instructor, BS, Morehead State University
Cantrell, Douglas E, Professor, MA, University of Kentucky, 1985
Cantrell, Lisa A, Professor, MA, Morehead State University, 1986
Chism, John, Associate Professor, AAS, Elizabethtown Community & Technical College, 2002
Clemens, Jerry L, Professor, MS, Eastern Kentucky University, 2010
Cole, William, Professor MS, Murray State University, 2001
Condilf, Sara E, Associate Professor, MAE, Western Kentucky University, 2007
Cooper, Yavetta K, Associate Professor, MS, Delta State University, 2012
Cordova, Timothy M, Professor, MA, Midwestern State University, 2002
Coulston, Charles, Associate Professor, MS, University of Kentucky, 2006
Counts, Gideon John, Instructor, AAS, Elizabethtown Community & Technical College, 2017
Coy, Julie S, Professor, MAE, Western Kentucky University, 1998
Cox, Thomas Allen, Associate Professor AAS, Elizabethtown Community & Technical College, 2013
Davis, John D, Associate Professor, PhD, University of Kentucky, 2003
Dile, Beverly, Professor, MA, West Virginia University, 1984
Doty, Brent Morgan, Professor, MA, Western Kentucky University, 2003
Druen, Joshua William, Professor, Morehead State University, 2012
Dryden, John, Associate Professor, PhD, University of Louisville, 2013
Edwards, Sarah, Associate Professor, MS, Walden University, 2007
Eicher, Katrina M, Professor, MA, University of Nebraska, 1989
Embry, Robin D, Professor, MSN, University of Louisville, 1994
Faherty, Erin G, Instructor, MA, Northern Illinois University, 1992
Fox-Angerer, Amy, Assistant Professor, MFA, Spalding University, 2009
Gabehart, Stephen, Associate Professor, AS, Western Kentucky University, 2008
Galloway, Joseph, Associate Professor, MS, Western Kentucky University, 2005
Glutting, Martha J, Professor, MSN, University of Louisville, 1989
Hamilton, Anna, Assistant Professor, MA, St. Catharine College, 2014
Hampton, Julie R, Instructor, BS, Walden University, 2017
Haque, Khondaker E, Professor, MA, University of Pittsburgh, 1981
Hall, Brandon, Instructor, AA, Elizabethtown Community and Technical College, 2018
Harper, Pamela, Professor, MA, SCT, Murray State University, 1980
Harris, Robert L, Professor, MA, Western Kentucky University, 1975
Hasty, Heidi Salena, Instructor, AAS, Elizabethtown Community & Technical College, 2014
Hawkins, Jacqueline, Professor, MA, Florida State University, 2006
Hazzard, Michael W, Professor, BS, Western Kentucky University, 2007
Henderson, JoNell, Assistant Professor, MA, Amberton University, 1989
Hicks, McLeah Dyer, Professor, MA, Western Kentucky University, 1994
Higdon, Rebecca, Professor, MS, University of Louisville, 2011
Hines, Brian A, Instructor, MS, Morehead State University, 2016
Hornback, Mary C, Professor, MA, Western Kentucky University, 1989
Kelley, Lawrence, Associate Professor, MA, University of Memphis, 2006
Kellie, Shawn A, Professor, PhD, University of Louisville, 2005
Kennedy, Kevin, Professor, MA, Indiana University, 1996
Kroll, Daniel, Associate Professor, AAS, Elizabethtown Community & Technical College, 2008
Late, David, Instructor, AAS, Elizabethtown Community and Technical College, 2016
Likins, Stephen S, Assistant Professor, AS, Western Kentucky University, 1999
Lilygren, Deena, Associate Professor, MA, University of Louisville, 2009
Lindsay, Rebecca, Assistant Professor, 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
Lowe, Robert Alan, Professor, AAS, Elizabethtown Technical College, 2010
MacKellar, Laurie A, Professor / Librarian I, MLS, University of Kentucky, 1992
Madaras, Navin, Associate Professor, MS, Marquette University, 2001
Mallard, Jamie, Instructor, BS, Eastern Kentucky University, 2002
Massaroni, Nolan, Assistant Professor, AAS, Community College of the Air Force, 1995
Matthews, Clay, Assistant Professor, PhD, Oklahoma University, 2008
McFalls-Smith, Tiffany, Associate Professor, MS, Southeastern Louisiana University, 2004
Meredith, Rosemary L, Professor, BS, University of Louisville, 1995
Metzger, Revel L, Professor, MA, Western Kentucky University, 1999
Meyer, Callista, Professor / Librarian I, MLS, University of Kentucky, 2007
Milakos, Michael, Assistant Professor, MS, University of Maine, 2007
Miller-Higgs, Rebecca, Instructor, MA, University of the Cumberlands, 2015
Nail, Joe J, Professor, BS, University of Louisville, 2000
Nason, Dean W, Associate Professor, MA, Western Kentucky University, 1979
Nusbaumer, David D, Associate Professor, MA, University of Montana, 1992
Owens, Jamie, Instructor, BS, Campbellsville University, 2015
Owens, Johnny, Professor, MA, Western Kentucky University, 1986
Owsley, Wanda D, Professor, PhD, University of Louisville, 2009
Page, Martha, Associate Professor, MS, Vanderbilt University, 1979
Parrett, Kevin, Associate Professor, MS, Sullivan University, 2005
Pate, Fredericka Susie, Professor, AS, Sullivan University, 1995
Poteet, Gordon D, Associate Professor, AS, Western Kentucky University, 1997
Puckett, Thomas Lee, Instructor, AAS, Elizabethtown Community & Technical College, 2010
Raizor, Glenn, Associate Professor, AAS, Elizabethtown Community & Technical College, 2005
Ray, Rachel, Associate Professor, MA, Indiana University, 2005
Rheinheart, Andrew, Instructor, PhD, University of Kentucky
Rigney, Mary Alisa, Professor, MA, Western Kentucky University, 2001
Rivera, Jeffrey, Professor, AAS, Elizabethtown Community & Technical College 2005
Roberts, Phillip, Associate Professor, MBA, University of Phoenix, 2011
Schrock, James E, Professor, EdD, Northern Illinois University, 1994
Slone, Anthony, Associate Professor, MBA, Ashland University, 2001
Smith, Benjamin, Instructor, BS, Eastern Kentucky University
Smith, David Jay, Instructor, MSW, Western Kentucky University, 2016
Spalding, Jared C, Professor, BS, Western Kentucky University, 2002
Spratt, Sharon L, Instructor, MS, West Kentucky University, 1989
Stegner, Gary M, Professor, PhD, University of Kentucky, 1986
Stout, 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, Associate Professor, AAS, Elizabethtown Community & Technical College, 2013
Waldron, John, Associate Professor, Ph.D, Texas A & M University, 2002
Wicks, Edward, Assistant Professor, MS, Syracuse University, 2001
Wilson, 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
Winchester, Charles, Instructor, MS, Western Kentucky University
Wolf, Joe, Associate Professor, PhD, University of Kentucky, 1997
Wright, Miky, Assistant Professor, MS, Western Kentucky University, 2015
Yates, Jennifer, Associate Professor, MS, Western Kentucky University, 2012
Young, Cody, Associate Professor, AAS, Bluegrass Community & Technical College, 2004
Gateway Community and Technical College

Mission Statement/Status of Accreditation
Gateway Community & Technical College engages, connects, and inspires all students through education to successfully champion our region’s competitive workforce and improve their quality of life.

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

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

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

Academic Programs

Transfer Curricula

Associate in Arts
Associate in Science

Occupational/Technical Curricula

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

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

Contact Information

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

Boone Campus
500 Technology Way
Florence, KY 41042

Edgewood Campus
790 Thomas More Parkway
Edgewood, KY 41017

Urban Metro Campus
516 Madison Avenue
Covington, KY 41011

General Information

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

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

Faculty

Albert, Stephanie Winter, Associate Professor, MEd, Northern Kentucky University, 1993
Bennett, Frances Ann, Instructor, MA, Northern Kentucky University, 2017
Blum, Pretty, Sherry, Associate Professor, MA, Northern Kentucky University, 2010
Bowen, Richard, Professor, AAB, Cincinnati State Technical and Community College, 1976
Burch, Courtney, Associate Professor, MA, Northern Arizona University, 2009
Byrd, Kairi N, Instructor, BSN, Beckfield College, 2015
Camm, Jana, Associate Professor, MEd, Northern Kentucky University, 1981
Carrino, Amy, Associate Professor, JD, Salmon P Chase College of Law, 1988
Carroll, John, Instructor, JD, Salmon P Chase College of Law, 2000
Carter, Amber, MBA, Northern Kentucky University, 2019
Collier, Samuel E, Associate Professor, MA, Morehead State University, 2018
Comparotto, William J, Assistant Professor, MA, Miami University, 2008
Crawford, Charles, Instructor, AAS, Gateway Community and Technical College, 2018
Da Silva, Fares, Associate Professor, MA, Indiana State University, 2008
DeBerry, John R, Associate Professor, MA, University of Wyoming, 2003
Deeley Willhite, Holly Michelle, Professor, PhD, University of Louisville, 2003
Dicie, Alexandria D, Instructor, BA, Northern Kentucky University, 2013
Dickman, Sharon M Nolan, Instructor, MSN, Wright State University, 2012

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, Tj E, Instructor, MEd, Miami University, 2013
Foltz, Rodney, Instructor, 5 Years Occupational Experience, ASE Master Certification
Frazier, Paul, Associate Professor, PhD, University at Albany SUNY, 2001
Gallagher, Richard, Instructor, BA, Thomas More College, 2014
Gibbs, James F, Lecturer, JD, University of Louisville, 1992
Grooms, Chad M, Assistant Professor, MBA, Morehead State University, 1998
Halley, Matthew R, Instructor, MS, University of Cincinnati, 2000
Hall, Gregory T, Instructor, BS, Northern Kentucky University, 1994
Hampton, George D, Assistant Professor, MS, American InterContinental University, 2019
Hollbrook, Adara Raquell, Instructor, AAS, Gateway Community and Technical College, 2016
Hou, Yohanes, Professor, PhD, Southern Illinois University, 2004
Hubbard, Lisa, Instructor, DNP, Vanderbilt University, 2012
Hughes, Keith, Associate Professor, PhD, LSU Health Sciences Center, 1994
Jing, Weizhong, Associate Professor, MS, New Jersey Institute of Technology, 1998
Karlage, Martha, Instructor, BS, Eastern Kentucky University, 1986
Lipscomb, Phillip Gabriel, Instructor, AAS, Gateway Community and Technical College, 2011
Lutes, Paul Alan, Instructor, BS, Northern Kentucky University, 1995
Mathew, George, Professor, PhD, University of Kentucky, 1994
McBreen, Anissa D, Instructor, AAS, Cincinnati State Technical and Community College, 1995
McKenna, Kerri, Associate Professor, EdD, Northern Kentucky University, 2011
Miller, Jennifer H, Assistant Professor, PhD, University of Louisville, 2002
Mueller, Michael Andres, Assistant Professor, BA, Wilmington College, 2016
Myka, Jennifer, Associate Professor, PhD, University of Kentucky, 2003
Neeley, Ron, Assistant Professor, BS, Northern Kentucky University, 2010
Neeley, Rocky, Associate Professor, MA, University of Cincinnati, 2008
Nelson, Lance, Associate Professor, BA, Marshall University, 1987
Nohl, Timothy J, Instructor, AAS, Allan Hancock College, 2017
Norris, Robert E, Instructor, 25 years of industry experience, MSSC Certified Logistics Technician, MA, Religion, 1992
Ostendorf, Audrey, Assistant Professor, MA, Northern Kentucky University, 2018
Owsley, Adarrell, Assistant Professor, MEd, Indiana Wesleyan University, 2012
Poppel, Elizabeth, Assistant Professor, BA, College of Mount St. Joseph, 1993
Ramer, Meredith, Assistant Professor, MSW, University of Michigan, 2011, MS, University of Cincinnati, 2015
Reynolds, Jon, Instructor, BA, Centre College, 1995
Rickels, Christopher, Assistant Professor, MA, The University of Toledo, 2013
Rickert, Patrick E, Associate Professor, MS, University of Wisconsin, 2000
Riley, Michael P, Instructor, MBA, Morehead State University, 2005
Russell, Margaret, Instructor, MEd, Xavier University, 1990
Russey, Christopher D, Assistant Professor, MS, Syracuse University, 2006
Santos, Susan, Associate Professor, PhD, Walden University, 2004
Sheafer, David, Assistant Professor, MA, Northern Kentucky University, 2013
Settlemoir, Beth, Associate Professor, ME, University of Cincinnati, 2008
Simms, Michele, Instructor, MEd, University of Phoenix, 2013
Smith, Sarah, Assistant Professor, PhD, Northern Kentucky University, 2019
Spardling, Daniel Elijah, Instructor, AAS, Gateway Community and Technical College, 2006
Steffen, Nicholas Michael, Instructor, Certificate, Gateway Community and Technical College, 2019, 25 Years Occupational Experience
Stroud, Reva, Assistant Professor, BS, Northern Kentucky University, 2010
Thapa, Gajendra, Instructor, MS, University of Nevada, Reno, 2016
Vallette, Natasha, Associate Professor, MA, Bowling Green State University, 2012
Walter, Eileen, Assistant Professor, MA, University of Cincinnati, 1998
Warburton, Charles, Professor, MA, University of Cincinnati, 2006
Wilkens, Irish C, Instructor, BS, University of Cincinnati, 2004
Hazard Community and Technical College

Mission Statement/Status of Accreditation
Hazard Community and Technical College empowers students by providing educational opportunities that lead to student success, rewarding careers and community enhancement.

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

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

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

Academic Programs

Transfer Curricula
- Associate in Arts
- Associate in Science

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

- Advanced Integrated Technology (C)
- Agriculture (C)
- Air Conditioning Technology (C, D)
- Automotive Technology (C, D, A)
- Business Communications (C)
- Business Studies:
  - Business Administration (C, D, A)
  - Community Health Worker (C)
  - Computer Aided Drafting and Design (C, D)
  - Computer and Information Technologies (C, A)
  - Computerized Manufacturing & Machining (C)
- Construction Technology (C, D)
- Cosmetology (C, D)
- Criminal Justice (C, A)
- Diagnostic Medical Sonography (A)
- Diesel Technology (C, D)
- Emergency Medical Services – Paramedic (C)
- Financial Customer Service (C)
- Fire Science Technology (C, A)
- General Occupational/Technical Studies (A)
- Health Care Foundations (C)
- Health Care Specialist (C)
- Health Information Technology (C, A)
- Heavy Equipment Operation (C, D)
- Human Services (C, A)
- Interdisciplinary Early Childhood Education (C, D, A)
- Manufacturing Engineering Technology (C, A)

- Manufacturing Industrial Technology:
  - Electrical Technology (C, D)
  - Massage Therapy Technology (C, A)
  - Medicaid Nurse Aide (C)
  - Medical Assisting (C, D, A)
  - Medical Information Technology (C, D, A)
  - Medical Laboratory Technician (C)
  - Nursing (A)
  - Physical Therapist Assistant (A)
  - Practical Nursing (D)
  - Professional Studio Artist (C, D, A)
  - Radiography (C, A)
  - Surgical Technology (A)
  - Surveying & Mapping Technology (C)
  - Telehealth Technician Associate (C)
- Unmanned Systems Technology (C, A)

Visual Communication:
- Design & Technology (C)
- Multimedia (C, D, A)
- Welding Technology (C, D)

Contact Information

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

- Hazard Campus
  One Community College Dr.
  Hazard, KY 41701
  Technical Campus
  101 VoTech Dr.
  Hazard, KY 41701

Lees College Campus
601 Jefferson Ave.
Jackson, KY 41339

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

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

General Information

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

President/CEO
Dr. Jennifer Lindon
Delcie Combs

Assistant to the President
Dr. Sandra Kiddoo
Germaine Shaffer

Chief Academic Officer
Connie Watts
Donna Roark

Chief Financial Officer
Vickie Combs
Keila Miller

Senior Director of Human Resources
Stu Fugate
Dr. Paul Currie

Dean of Operations
Dr. Ella Strong

Dean of Health and Human Services

Dean of Innovation and Educational Technologies

Dean of Humanities, Communication and Transfer
Dr. Deronda Mobelini
Leila Sandlin Smith

Dean of Advanced Technologies and Professional Services
Tony Back

Dean of Retention Services
Dr. Beth Pennington

Faculty
Abney, Rebekah E, Assistant Professor, BSN, Eastern Kentucky University, 2017
Adams, Douglas D, Professor, AAS, Hazard Technical College, 2002
Back, Tony, Professor, MS, Eastern Kentucky University, 2012
Barnes Jr, Donald R, Professor, MS, Oklahoma State University, 1992
Boothe, Jenna L, Associate Professor, DNP, Western Kentucky University, 2015
Bowlin, Virgil L, Instructor, University of the Cumberlands, 1997
Bowling, Randy L, Associate Professor, 49 years Teaching Experience, 29 years Occupational Experience
Bowling, Tracy L, Professor, DPT, University of Kentucky, 2010
Branson, Cathy A, Professor, Librarian I, MLSL, University of Kentucky, 2005
Brunty, Helen F, Professor, MSW, University of Kentucky, 2000
Bryant, Jeremiah, Professor, MA, Morehead State University, 2000
Bryant, Randall K, Professor, MA, West Georgia College, 1988
Caudill, Jimmy D, Professor, Diploma, Hazard Technical College, 1987
Clemmons, Mavis, Assistant Professor, MS, Eastern Kentucky University, 2010
Coleman, Larisa, Associate Professor, MSN, Chamberlain College of Nursing, 2016
Collins, Gwendolyn, Professor, AAS, University of Kentucky, 1982
Combs, Jerry M, Professor, MA, Morehead State University, 2011
Cornett, Willie, Associate Professor, AAS, Hazard Community and Technical College, 2009
Couch, Melissa, Associate Professor, BS, Morehead State University, 2012
Cueller, Ramon E, Assistant Professor, MS, University of Iowa, 2005
Cravens, Thomas L, Assistant Professor, MS, University of Kentucky, 1989
Currie, Paul B, Professor, DVM, University of Georgia, 2000
Davidson, Gwendolyn, Associate Professor, MS, Morehead State University, 2014
Dunn, Timothy J, Professor, MA, University of Kentucky, 1989
Flannery, Madeline K, Professor, MA, Columbia University, 1986
Francis, Sam W, Professor, PhD, University of Kentucky, 1998
Frazier, David L, Professor, MBA, Morehead State University, 1998
Gibson, Diane A, Lecturer, MS, Louisiana Tech University, 2009
Globig, Sabine A, Professor, MS, Rutgers University, 1988
Hagans-Shepherd, Ludrenia Sue, Professor, MSN, Eastern Kentucky University, 2000
Harris, Ann W, Lecturer, PhD, University of Kentucky, 2020
Holliday, Charmoin, Assistant Professor, AAS, Hazard Community and Technical College, 2014
Howard, Arzella W, Professor, MSN, University of Phoenix, 2008
Hudson, Evelyn, Instructor, Librarian III, MS, University of Kentucky, 2015
Ingram, Danny M, Professor, BS, Eastern Kentucky University, 2008
Johnson, R Susan, Professor, BS, Eastern Kentucky University, 2007
Kidd Jr, Ralph E, Professor, MS, Eastern Kentucky University, 1991
Lutes, Jennifer, Associate Professor, MA, Morehead State University, 2010
Maggard, Wilma, Associate Professor, Certificate, Hazard Community and Technical College, 2003
Martin, Christina R, Professor, MSN, Eastern Kentucky University, 2009
Martin, Joanna H, Associate Professor, Diploma, Cumberland Valley Technical College, 1999
Massey, Harold B, Assistant Professor, MA, Morehead State University, 2014
May, Scott R, Professor, MS, Indiana State University, 1990
Medlin, Rex, Lecturer, MS, Arkansas State University, 2007
Mobelini, Deronda C, Professor, Ed. D., University of Kentucky, 2012
Moon, Randall B, Professor, PhD, University of California at Riverside, 2000
Napier, Samuel Scott, Associate Professor, 22 years Teaching Experience, 20 years Occupational Experience
Neace, Shaun, Assistant Professor, AAS, Hazard Community and Technical College, 2003
Neace, Thomas D, Professor, MA, Eastern Kentucky University, 2016
Niece, Ralph D, Instructor, 23 years Occupational Experience
Osborne, Norman Dean, Instructor, 35 years Teaching Experience, 30 years Occupational Experience
Pennington, Beth Ann, Associate Professor, Ed. D., Morehead State University, 2013
Petrey-Blandau, Sandra E, Professor, MA, Eastern Kentucky University, 1982
Quillen, Andrea M, Instructor, BSN, Eastern Kentucky University, 2017
Rafferty, Austin M, Instructor, AAS, Hazard Community and Technical College, 2007
Reed, Ronald S, Professor, MA, University of Dayton, 1985
Richie, Tammy Lene, Professor, MBA, Morehead State University, 1985
Sasser, Lynn D, Professor, MS, Eastern Kentucky University, 1972
Shaffer, Germaine B, Professor, JD, University of Louisville, 1990
Sexton, Rachel Juanita, Professor, Diploma, East Kentucky Beauty College, 1998
Smith, Gary Wayne, Assistant Professor, AAS, Hazard Community and Technical College, 2018
Smith, Leila Sandlin, Professor, MBE, Morehead State University, 1987
Smith, Penny, Assistant Professor, MA, University of Kentucky, 1992
Smith, Walter, Associate Professor, MS, University of Cincinnati, 2007
Spears, April J, Assistant Professor, MS, Eastern Kentucky University, 2008
Spencer-Barnes, Amanda G, Associate Professor, MA, Morehead State University, 2007
Stampfer, Vera Dawn, Associate Professor, DPT, University of Kentucky, 2011
Strong, Ella J, Professor, Ed. D., University of Kentucky, 2011
Swafford, Bryan, Associate Professor, BA, Alice Lloyd College, 2000
Tabor, Renee, Professor, MS, University of Kentucky, 1993
Terry, Homer, Professor, MS, Eastern Kentucky University, 2004
Thompson, Janie C, Professor, MSN CNE, Eastern Kentucky University, 2020
Thorpe, Rebecca Dawn, Instructor, MBA, Morehead State University, 2009
Turner, Tina, Assistant Professor, BSN, Indiana Wesleyan, 2016
Vergne, Stephanie L, Professor, MA, Morehead State University, 2001
Wernette, Amy S, Professor, MS, University of Michigan, 1996
Whittaker, Timothy, Professor, BS, Midwestern State University, 2005
Williams, Jenny D, Professor, MA, University of Kentucky, 1992
Wireman, April Graham, Assistant Professor, MA, Eastern Kentucky University, 2005
Wood, Jeremy R, Professor, MS, University of Tennessee, 1993
The Mission of Henderson Community College is: To enhance the quality of life and employability of our community by serving as the leading provider of:

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

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

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

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

Academic Programs

Transfer Curricula
- Associate in Arts
- Associate in Science

Occupational/Technical Curricula
- The program listing represents broad groups of instructional programs offered by the college. Individual certificate (C), diploma (D), and Associate in Applied Science (A) degree curricula in each group are noted by C, D, and A in parenthesis.
- Agriculture (C, D, A)
- Business Studies:
  - Business Administration (C, A)
  - Business Management and Marketing (C)
  - Computer and Information Technologies (C, A)
- Computerized Manufacturing and Machining (C)
- Engineering and Electronics Technology (C)
- Health Science Technology (A)
- Interdisciplinary Early Childhood Education (C, D, A)
- Manufacturing Industrial Technology:
  - Electrical Technology (C)
  - Industrial Maintenance Technology (C, A)
- Medical Assisting (C, D, A)
- Medical Laboratory Technician (C, A)
- Nursing (A)
- Welding Technology (C)

Contact Information

Henderson Community College
2660 South Green Street
Henderson KY 42420
(270) 827-1867
Toll free: 800-696-9958
Henderson.kctcs.edu
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, MIS, Morehead State University, 2016
Reid, Kevin, Professor, MLS, University of Kentucky, 1993, MA, Purdue University, 1986
Seaton, Amanda, Instructor, MA, Western Kentucky University, 2019

Smith, Mark, Assistant Professor, MBA, University of Southern Indiana, 1999
Strawn, Anthony, Professor, MA, University of Evansville, 1979, EdD, Murray State University, 2019
Taylor, Scott, Associate Professor, MS, Murray State University, 2010, EdD, Western Kentucky University, 2017
Wells, Rebecca, Professor, MS, Eastern Kentucky University, 1985
Winstead, Laura, Professor, MS, Murray State University, 1996, M.Div. Liberty University, 2018
Mission Statement/Status of Accreditation

Hopkinsville Community College leads in academic excellence by preparing students for transfer and the workforce, inspiring lifelong learning.

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)
Agriculture (C, D, A)
Automotive Technology (C)
Business Studies:
  Administrative Office Technology (C, A)
  Business Administration (C, D, A)
  Hospitality Management Track (A)
  Medical Information Technology (A)
  Supply Chain Management (C)
Computer Aided Drafting and Design (C)
Computer and Information Technologies (C, A)
Computerized Manufacturing and Machining (C, D)
Construction Technology (C)
Criminal Justice (C, A)
Diesel Technology (C, D, A)
Emergency Medical Services – Paramedic (C, A)
Emergency Medical Technician (C)
Engineering and Electronics Technology (C, D, A)
Fire Science Technology (C, D, A)
General Occupational/Technical Studies (A)
Health Science Technology (A)
Human Services (C, A)
Interdisciplinary Early Childhood Education (C, D, A)

Manufacturing Industrial Technology:
  Electrical Technology (C, D, A)
  Industrial Maintenance Technology (C, D, A)
Massage Therapy Technology (C)
Medical Assisting (C, D, A)
Medical Information Technology (C, D, A)
Medical Laboratory Technician (C)
Nursing (A)
Pharmacy Technology (C, D)
Physical Therapist Assistant (A)
Practical Nursing (C, D)
Radiography (A)
Respiratory Care (A)
Surgical Technology (A)
Welding Technology (C, D, A)

Contact Information

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

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

General Information
(270) 707-3700

Admissions 1-855-22GO-HCC (1-855-224-6422)
Sara Trout (270) 707-3813
Adult Education (270) 707-3926
Gary Dawson (270) 707-3820
Advising Center Deloria Scott (270) 707-3826
Testing Center Martha Metcalfe
Business Office 1-855-22GO-HCC (1-855-224-6422)
Matthew Davenport (270) 707-3729
Career and Transfer Services (270) 707-3827
Kanya Allen
Workforce Solutions (270) 707-3750
Carol Kirves (270) 707-3801
Disability Services Angel Prescott
Distance Learning Support (270) 707-3903
Sally Jackman (270) 707-3868
Financial Aid 1-855-22GO-HCC (1-855-224-6422)
Janet Gunther (270) 707-3833
Human Resources (270) 707-3722
Yvonne Glasman
International Student Services (270) 707-3801
Angel Prescott
Library (270) 707-3762
TBD
Public Relations and Marketing (270) 707-3732
Rena Young
Records/Registrar
Tiffanie Witt
Manager of External Education Programs-
Rotary Scholars/Dual Credit
Jeremy Calico
Transfer Information Liaison
Kanya Allen
Veterans Affairs
Angie Goode
Information Technology
Tony Nelson
Fort Campbell Campus
Mrs. Alicia Lee

Administration
President/CEO
TBD
Chief Academic Affairs Officer
Mrs. Angel Prescott
Chief Student Affairs Officer
Dr. Dale Leatherman
Chief Business Affairs Officer
Mrs. Yvette Y. Eastham
Chief of Community, Workforce
and Economic Development
Mrs. Carol Kirves
Chief of Institutional Advancement
Mrs. Yvette Y. Eastham
Fort Campbell Campus Director
Ms. Allisha Lee
Division of Allied Health
Dr. Elizabeth Beverly
Division of Liberal Arts & Social Sciences
Mrs. Julia Laffoon-Jackson
Division of Mathematics and Sciences
Mr. Ted Wilson
Division of Nursing
Mrs. Joyce Lambruno
Division of Professional and Technical Studies
Mr. Robert Smith

Faculty
Anderson, Danny L, Associate Professor, BSN, Austin Peay State University, 2013
Arnold, Jason E, Professor, MS, Murray State University, 2008, MS, Southern Illinois University at Carbondale, 1997
Ausenbaugh, Yasamin, Instructor, MA, Western Kentucky University, 2005
Beverly, Elizabeth A, Associate Professor, EdD, Murray State University, 2019
Braxton-Brown, Justin Dale, Professor, MA, Ohio University, 2002
Burrell, Jarahel Victor, Assistant Professor, PhD, Kansas State University, 2009
Burton, Elizabeth, Instructor, MFA, Spalding University, 2017
Carlisle II, Thomas T, Professor, MA, Murray State University, 1994
Casey, Kenneth Stewart, Professor, PhD, Vanderbilt University, 1991
Cawood, Marketa Liska, Professor, MA, State University of New Jersey Rutgers, 2007
Chapel, Sheri, Instructor, JD, Oklahoma City University, 2001
Chester, Caitlin, Assistant Professor, MA, Murray State University, 2010
Davis, John P, Associate Professor, PhD., University of Kentucky, 2012
Dossett, Holly, Instructor, BSN, Belmont University, 2012
Dougherty, Jacob, Instructor, Certification by experience
Dougherty, Melissa, Assistant Professor, MS, Miami University, 2016
Evans, Audrey D, Professor, EDS, Austin Peay State University, 1998
Folz, Julie, Instructor, AAS, KCTCS - Hopkinsville Community College, 2008
Jackson, Sarah F, Associate Professor, ME, University of Texas at El Paso, 1980,
MET, University of Texas at El Paso, 1992
James, Addison, Instructor, MA, Western Kentucky University, 2015
Laffoon-Jackson, Julia, Professor, MA, Western Kentucky University, 1981
Lambruno, Joyce, Professor, MSN, Murray State University, 2010
Lee, Jason, Associate Professor, MS, Murray State University, 2014
Lee, Lauren Whitney, Instructor, BSN, Murray State University, 2017
Lemons, Sherry L, Professor, MS, Austin Peay State University, 1994
Lutz, Roger, Associate Professor, AAS, KCTCS - Hopkinsville Community College, 2004, Certification, CFPIHM and CFPIHT, 2001
McCormack, Sherry Lynn, Associate Professor, MS, Murray State University, 2009
McGovern, Tonya, Instructor, AAS, KCTCS - Madisonville Community College, 2005
McKee, Tonya, Instructor, AAS, KCTCS - Hopkinsville Community College, 1997
McKee, Tonya, Instructor, AAS, KCTCS - Madisonville Community College, 2009
McKee, Tonya, Instructor, AAS, KCTCS - Madisonville Community College, 2009
McKee, Tonya, Instructor, AAS, KCTCS - Madisonville Community College, 2009
McKee, Tonya, Instructor, AAS, KCTCS - Madisonville Community College, 2009
Meade, Beth, Assistant Professor, DNP, University of Kentucky, 2017
Meador, Barbara W, Professor, MA, Austin Peay State University, 1978
Morphew, Edward Earl, Instructor, AAS, Hopkinsville Community College, 2012
Murray, Cory James, Instructor, AAS, Hopkinsville Community College 2017 and 2019
Packer, Rolyn, Instructor, MSN, Vanderbilt University, 2013
Pullen, Sherri, Assistant Professor, MSN, University of Southern Indiana, 2017
Qualls, Amanda Jo, Instructor, BSN, Indiana Wesleyan University, 2017
Revelett, Rita Denise, Assistant Professor, MSN, Chamberlain College of Nursing, 2017
Riley, Patrick J, Professor, MA, University of Missouri, 1997
Sandifer, Dana R, Professor, MSN, Murray State University, 1996
Schultz, Arthur Ray, Associate Professor, MS, Tennessee State University, 2009
Scott, Deloria A, Professor/CC Counselor, MS, Murray State University, 1996
Sharber, Karen Gwenn, Instructor, MSN, Western Kentucky University, 2015
Sims, Derek, Professor, MBA, Murray State University, 2011, MS, Southern Illinois University, 2007
Smith, Angela, Instructor, AAS, Madisonville Community College, 2012
Smith, Robert William, Associate Professor, MAE, Marian University, 2009
Stewart, Krista Lynne, Instructor, MSN, Austin Peay State University, 2005
Stone, Abbey L, Associate Professor, BS, Indiana Wesleyan University, 2013
Thomas, Lois Diane, Instructor, MBA, Murray State University, 1992
Thompson, Shari Rae, Instructor, MME, Murray State University, 1994
Towery, Nicole Renee, Instructor, MME, Murray State University, 2005
Wilson, Ted H, Professor, MA, Baylor University, 1983
Wingate, Matthew, Instructor, AAS, American Military University, 2015
Wood, Matthew John, Instructor, MS, Old Dominion University, 2008
Worley, Brenda, Instructor, EdD, Northcentral University, 2019
Ziemian, Stuart David, Associate Professor, AAS, KCTCS – Hopkinsville Community College, 2006

(270) 707-3827
(270) 707-3771
(270) 707-3825
(270) 707-3958
(270) 707-3811
(270) 707-3809
(270) 707-3957
(270) 707-3957
(270) 707-3827
(270) 707-3827
(270) 707-3809
(270) 707-3958

(270) 707-3811
Mission Statement/Status of Accreditation

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

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

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

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

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

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

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

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

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

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

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

Academic Programs

Transfer Curricula
- Associate in Arts
- Associate in Science

Occupational/Technical Curricula
- 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 (C, D, A)
- Computer Aided Design and Drafting (C, D)
- Computer and Information Technologies (C, A)
- Computerized Manufacturing and Machining (C, D)
- Construction Technology (C, D)
- Cosmetology (C, D)
- Criminal Justice (A)
- Culinary Arts (C, A)
- Education (A)
- Emergency Medical Services – Paramedic (C, A)
- Emergency Medical Technician (C)
- Engineering and Electronics Technology (C, D, A)
- Fire Science Technology (C, D, A)
- General Occupational/Technical Studies (A)
- Geospatial Technology (C)
- Global Studies (C)
- Health Information Technology (C, A)
- Health Science Technology (A)
- Historic Preservation Technology (C)
- Human Services (C, A)
- Industrial Chemical Technology (A)
- Insurance and Risk Management (C)
- Interdisciplinary Early Childhood Education (C, A)
- Invasive Cardiology (C)
- Manufacturing Industrial Technology:
  - Electrical Technology (C)
  - Industrial Maintenance Technology (C, D, A)
- Mechatronics (C)
- Medical Administrative Services (C)
- Medical Assisting (C, D, A)
- Medical Information Technology (C, D)
- Medical Laboratory Technician (C, A)
- Multi-skilled Systems Technician (C)
- Nursing (A)
- Occupational Therapy Assistant (A)
- Pharmacy Technology (C, D)

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.
Contact Information

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

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

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

Carrollton Campus
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

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

Disability Services
(502) 213-2449

Office of Diversity, Inclusion & Community Engagement (ODICE)
(502) 213-2171

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

Human Resources
(502) 213-2118

International Admissions
(502) 213-2496

Library – Downtown
(502) 213-2154

Library – Jefferson Technical
(502) 213-4167

Library – Southwest
(502) 213-7222

Marketing and Communications
(502) 213-2400

Records
(502) 213-4000

Transfer Information Liaison
(502) 213-4000

Veterans Affairs
(502) 213-2139

Administration

President
Dr. Ty Handy

Vice President for Academic Affairs
Dr. Diane Calhoun-French

Vice President for Student Affairs
Dr. Laura Smith

Vice President of Administration and Chief Financial Officer
Gary Dryden, Jr.

Vice President of College Advancement, Planning and Research
Don Schieman

Associate Vice President of Academic Affairs
Dr. Randall Davis

Associate Vice President of Academic Initiatives
Andrew (Drew) Wilkerson

Vice President of Trade and Technology Initiatives
Dr. Telly Sellars

Dean of System Initiatives
Vincent DiNoto Jr.

Site Director/Assistant Professor- Carrollton Campus
Heather Yocum

Site Director – Shelby Campus
Maia Langley

Site Director – Bullitt Campus
Kim Boggs

Site Director – Southwest Campus
Jessica Duff

Assistant Vice President, Human Resources
Toni E. Whalen

Assistant Vice President, Student Affairs (Diversity, Inclusion and Community Engagement)
Danielle Sims Brooks

Assistant Vice President, Workforce Solutions
Dr. Nikki Cobb

Director of Institutional Effectiveness
Dr. Brittany Inge

Dean of Arts and Humanities (Division Chair)
Dr. Amy Stewart

Dean of Business and Advanced Technology (Division Chair)
Dr. Bruce Jost

Dean of Social and Behavioral Sciences (Division Chair)
Leonard Thomas

Dean of Allied Health (Division Chair)
Kara Schotter

Dean of Nursing (Division Chair)
Jaclyn Bitterman

Dean of Mathematics (Division Chair)
Brandon Bartley

Dean of Natural Science (Division Chair)
Kaya Muller

Dean of Trade and Industry (Division Chair)
Grant Gamble

Director of Library Services
Sheree Gamble

Director of Library Services
Sheree Williams

Faculty

Ackerman, Jennifer, Professor, MA, University of Louisville, 1993
Adams, James, Associate Professor, MHA, University of Phoenix, 2007
Adams, Jill, Professor, MA, East Carolina University, 1998
Albertson, Stephanie, Instructor, PhD, University of Delaware, 2009
Allen, Susan, Instructor, MA, University of Louisville, 1999
Alpiger, Herbert H., Instructor, Licensed Airframe/Powerplant Mechanic
Andrew (Dr.rew) Wilkerson
Angeli, Melinda Maria, Instructor, LPN, National Certification of Surgical Technologists
Arslanian, Samuel R., Associate Professor, MBA, Pittsburg State University, 1989
Arterburn, Kay Poindexter, Professor, MAT, University of Louisville, 1987
Asamoah, Samuel R, Associate Professor, MBA, Pittsburgh State University, 1989
Austin, Marlisa R, Professor, MA, Union College, 1999
Bartley, Brandon, Professor, MS, Virginia Tech, 2003
Bets, Autumn, Associate Professor, MSW, Southern Baptist Theological Seminar, 1996
Bitterman, Jaclyn, Assistant Professor MSN, Indiana Wesleyan, 2016
Boswell, Melanie A, Professor, MS, Florida State University, 2000
Boyd, Lisbeth, Assistant Professor, MS, Murray State University, 2008
Breedling, Bruce, Instructor, PhD, University of Georgia, 2003
Bryan, Alexandra, Assistant Professor, M.A., Western Kentucky University, May 2008
Buckler, Michael, Associate Professor, MA, University of Louisville, 1996
Buckner, Alex, Instructor, JCTC, Licensed Airframe/Powerplant Mechanic, May 2008

Physical Therapist Assistant (A)
Plumbing Technology (C, D)
Practical Nursing (C, D)
Radiography (A)
Respiratory Care (C, A)
Surgical Technology (D, A)
Teaching English to Speakers of Other Languages (TESOL) (C)
Welding Technology (C, D, A)
Visual Communication:
- Communication Arts Technology (C, A)
- Multimedia (C)
- Printing (C, D)
- Visual Arts (C)

Community Engagement (ODICE)
Visual Arts (C)
Printing (C, D)
Communication Arts Technology (C, A)
Taylor, Stacy, Associate Professor, MA, University of Louisville, 1999
Thomas, Leonard, Associate Professor, MA, University of Louisville, 2010
Tiller, Donald, Instructor, 32 years experience in industry
Tomei Jr., Dontoe A, Assistant Professor, MAEastern Illinois University, 1996
Tran, Linh T., Associate Professor, MS, Western Kentucky University, 2004
Vogel, David M, Associate Professor, PhD, University of Louisville, 2002
Ward, John, Associate Professor, MBA, University of Louisville, 2000
Wechter, Bree, Associate Professor, MA, Eastern Illinois University, 2002
Wheat, Valerie J., Associate Professor, PhD, University of Cincinnati College of Medicine, 2001
White, Deborah C, Professor, MSN, University of Kentucky, 1982
Willburn, Mark S, Professor, PhD, Ohio University, 1987
Wilkerson, Andrew, Assistant Professor, MS, University of Nebraska, 2010
Will, Michael Anthony Jr., Instructor, AAS, EMT, Eastern Kentucky University, 1995
Williams, Lawrence, Instructor, Instructor, PhD, Capella University, 2013
Williams, Sheree Huber, Professor, MSLS, University of Kentucky, 1981
Wright, Mark, Professor, MEng, University of Louisville, 1992
Yocum, Heather L, Assistant Professor, MA, Northern Kentucky University, 2010
Young, Tiffany, Assistant Professor, M.A., English, Florida State University, 2007
Younger, Christopher Thomas, Instructor, A.A.S. Jefferson Community and Technical College, 2014

Correctional Sites

Green River*
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 personal effectiveness.
- Community service and responsiveness.
- Continuous improvement.
- Diversity in all its dimensions.
- Sustainability.
- Life-long learning.

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

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

Academic Programs

Transfer Curricula

- Associate in Arts
- Associate in Science

Occupational/Technical Curricula

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

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

Contact Information

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

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

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

Muhlenberg Campus
406 W Everly Brothers Boulevard
Central City, KY 42330
(270)757-9881
Glena 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 (1-855-554-6622)  
Human Resources  (270) 824-8649  
Library  (270) 824-1722  
Public Relations  (270) 824-8581  
Records and Registrar  (270) 824-8575  
Veterans Affairs  (270) 824-1708  
Website  madisonville.kctcs.edu

Administration

President  Dr. Cynthia S. Kelley  
Provost  Dr. R. Scott Cook  
VP, Quality Assurance & Administration  Dr. Jonathan V. Parrent  
Chief Business Affairs Officer  E. Ray Gillaspie  
Workforce Solutions  Michael A. Davenport  
Grants, Planning, and Effectiveness  David A. Schuerner  
Institutional Advancement  Raqënia D. Scott  
Director, Human Resources  Kim Jones  
Public Relations Coordinator  Emily Ray  
Division of Applied Technologies  Matthew S. Luckett  
Division of Arts & Humanities  Chandy Melton  
Division of Allied Health  Tonia R. Gibson  
Division of Nursing  Marsha D. Whitfield  
Division of Mathematics and Sciences  M. Dawn Tillen  
Division of Social and Behavioral Sciences  Natalie F. Cooper

Faculty

Adams, Sara Lyn Balduf, Professor, PhD, Florida State University, 2008  
Adkins, Christy S, Professor, MS, Washington University, 2011  
Allen, Barton E, Assistant Professor, BS, Western Kentucky University, 2002  
Allen, Clarissa E, Associate Professor, MA, East Tennessee State University, 2007  
Allen, E Shannon, Professor, MSN, University of Kentucky, 2001  
Bailey Archila, Amberly Brooke, Associate Professor, MA, Murray State University, 2009  
Bennett, Tate R, Professor, MS, West Virginia University, 1989  
Bidwell, Jeffrey L, Instructor, MA, Murray State University, 1999  
Burton, Misty V, Associate Professor, BS, Eastern Kentucky University, 1995  
Clayton, Wendy Dail, Professor, MSN, Western Kentucky University, 2008  
Cook, Ava M, Associate Professor, MSN, Northern Kentucky University, 2014  
Cooper, Natalie F, Professor, MS, Murray State University, 1998  
Cunningham, Chester M, Professor, MBA, Murray State University, 2014  
Davis, Reid A, Professor, BS, Western Kentucky University, 1999  
Davis, Sharon D, Associate Professor, MA, University of Kentucky, 1993  
Davis, Timothy F, Professor, MS, Murray State University, 2013  
Deal, Andrea L, Professor, MA, Murray State University, 2005  
Deal, Robert Michael, Associate Professor, MS, Western Kentucky University, 2017  
Duncan, April M, Instructor, BS, Western Kentucky University, 2012  
Edens, Kellie Brooke, Associate Professor, DNP, Eastern Kentucky University, 2017  
Elder, Loretta J, Associate Professor, DNP, Eastern Kentucky University, 2016  
Florea, Jeffrey M, Professor, MS, Murray State University, 2000  
Florea, Katrina M, Associate Professor, MS, Murray State University, 1999  
Fouse, Patricia F, Assistant Professor, MA, Murray State University, 2007  
Fugate, Sharon J, Professor, MS, Morehead State University, 1990  
Gallegos, Darlena, Associate Professor, MS, Eastern Kentucky University, 2019  
Garrity, Savanna C, Professor, MPA, Murray State University, 2008  
Gary, Connie, Instructor, MS, Western Governors University, 2013  
Gibson, Molly E, Associate Professor, MPA, Western Kentucky University, 2008  
Gibson, Tonia R, Professor, MS, Murray State University, 2008  
Gochberg, April, Instructor, BS, Bethel University, 2019  
Gooch, Joe T, Professor, MA, University of Indiana, 1966  
Grace, April M, Professor, MA, Western Kentucky University, 2005  
Groenewold, Les, Instructor, MBA, University of Southern Indiana, 2001  
Hannam, Evan C, Instructor, MS, Murray State University, 2019  
Harris, Brad, Instructor, KY HVAC Master Contractor License, 2008  
Hayes, Kelly A, Professor, MS, Murray State University, 2014  
Hendrix, Stephen, Instructor, BS, Murray State University, 2016  
Hernandez-Stevenson, Brittnay, Assistant Professor, MS, Murray State University, 2013  
Hewell, Sherry D, Professor, MEd, University of Louisville, 1993  
Hill, Clarissa Rana, Professor, MS, Murray State University, 2007  
Johnson, Felicia K, Professor, MA, Murray State University, 1987  
Jones, Joey R, Professor, MS, Murray State University, 2012  
Jones, Sara Jane, Professor, DNP, Eastern Kentucky University, 2016  
Kown, Robert, Instructor, AAS, Owensboro Community College, 2006  
Latham, Dawn L, Associate Professor, MSN, Western Kentucky University, 2015  
Lear, Eliysha Gayle, Professor, MS, Western Kentucky University, 2001  
Lear, Tracie D, Associate Professor, MSN, Northern Kentucky University, 2014  
Lewis, Harry R, Professor, MS, University of Evansville, 1986  
Littlehale, Tracy, Professor, MS, Northeastern University, 1999  
Lowbridge, John, Associate Professor, PhD, South Bank University, 1971  
Luckett, Matthew S, Associate Professor, MS, Western Kentucky University, 2017  
Lutz, Rebecca Faith, Associate Professor, DNP, Northern Kentucky University, 2017  
Markwell, Greshin M, Associate Professor, MSN, Western Governors University, 2014  
Martin, Timothy S, Associate Professor, M-DIV, Liberty University, 2016  
McClearn, Nancy J, Professor, MA, Murray State University, 1997  
Melton, Chandy D, Associate Professor, MA, Murray State University, 2000  
Mitchell, Judith A, Associate Professor, MSN, Western Kentucky University, 2015  
Morris, Aaron D, Assistant Professor, AAS, Madisonville Community College, 2011  
Payton, Amanda L, Instructor, BIS, Murray State University, 2017  
Peyton, Sarah R, Associate Professor, MSN, Murray State University, 2011  
Qualls, Mary Kim, Professor, DOT, Eastern Kentucky University, 2016  
Richmond, Camille E, Associate Professor/Librarian II, MLIS, Louisiana State University, 1991  
Schnapf, Barbara A, Associate Professor, MS, University of Evansville, 1997  
Shaw, Krista, Instructor, MA, Reinhardt University, 2018  
Shilliflett, George M, Professor, PhD, University of Virginia, 1989  
Schnorr, Lauren, Instructor, MS, Austin Peay University, 20  
Siddon, Tina M, Professor, MS, Murray State University, 2014  
Simons, Kimberly Lee, Professor, MA, Murray State University, 2001  
Skee, Amanda F, Associate Professor, MPT, University of Evansville, 2003  
Talukdar, Asmeen, Associate Professor, PhD, University of Cincinnati, 2008  
Taylor, Stephanie A, Professor, MAE, Western Kentucky University, 2017  
Tilburg, Monica D, Professor, MS, Western Kentucky University, 1992  
Welch, Jennifer R, Associate Professor, MA, Western Kentucky University, 2009  
Wells, Roy, Instructor, AAS, University of Kentucky, 1984  
Werner, Mary B, Professor, PhD, Northern Illinois University, 1996  
West, Robin R, Associate Professor, PhD, Indiana State University, 2008  
Whitehall, Marsha Diane, Professor, DNP, Eastern Kentucky University, 2016
Maysville Community and Technical College

Mission Statement/Status of Accreditation

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

Goals of the College:

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

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

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

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

Academic Programs

Transfer Curricula
- Associate in Arts
- Associate in Science

Occupational/Technical Curricula

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

Advanced Integrated Technology (C)
Advanced Nursing Assistant (C)
Air Conditioning Technology (C, D)
Automotive Technology (C, D)
Business Studies:
  - Administrative Office Technology (C, D, A)
  - Business Administration (C, D, A)
Computer Aided Drafting & Design (C)

Computer and Information Technologies (C, A)
Computerized Manufacturing and Machining (C, D, A)
Construction Technology (C, D)
Criminal Justice (C, A)
Culinary Arts (C, A)
Diesel Technology (C, D)
Emergency Medical Services – Paramedic (C)
Emergency Medical Technician (C)
Fire Science Technology (C, D, A)
General Occupational/Technical Studies (A)
Horticulture (C, D)
Interdisciplinary Early Childhood Education (C, D, A)
Manufacturing Industrial Technology:
  - Electrical Technology (C, D)
  - Industrial Maintenance Technology (C, D, A)
Medical Assisting (C, D)
Medical Information Technology (C, D, A)
Medical Laboratory Technician (C, A)
Nursing (A)
Plumbing Technology (C, D)
Practical Nursing (C, D)
Respiratory Care (A)
Unmanned Systems Technology (C)
Welding Technology (C, D)
Workplace Safety Specialist (C)

Contact Information

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

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

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

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

Licking Valley 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

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 Gaunce
Montgomery Campus Education Center Director  Rebecca Morton
Director, Institutional Advancement  Cara Clarke
Director, Marketing and Public Relations  Brandy Shultz
Division of Industrial Technologies  Tony Wallace
Division of Liberal Arts and Education  Alex Hycza
Division of Math, and Natural Science  Angela Fultz, Ph.D.
Associate Dean of Health Sciences  Ginger Clarke
Division of Business and Related Technologies  Natasha Maddox
Coordinator, Distance Learning  Rita Thomas
Coordinator, Dual Credit Vacant

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

Faculty

Adler, Jennifer, Instructor, MS, Eastern Kentucky University, 2010
Barnett, Kelly, Instructor, AAS, Maysville Community College, 2012
Bishop, Melissa, Instructor, MA, Morehead State University, 2016
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, Dana L, Professor, MA, Morehead State University, 1998
Curtis, Tina, Assistant Professor, MA, Northern Kentucky University, 2009
Dement, Elizabeth, Instructor, MS, Morehead State University, 2016
Eads, Sonja R, Professor/Librarian I, MLS, University of Kentucky, 1985
Flora, Charlene, Assistant Professor, BA, University of Tennessee, 2010
Franz, Kyle, Instructor, MA, University of Kentucky, 2018
Frazier, April, Instructor, BSN, University of Kentucky, 2013
Frode, Shannon C, Professor, MSN, Northern Kentucky University, 2007
Fultz, Angela, Professor, PhD, University of Kentucky, 1996
Garner, Jennifer, Instructor, BSN, Morehead State University, 2015
Garrison, Janet L, Professor, MBA, University of Kentucky, 1992
Graves, Robert L, Professor, MS, Morehead State University, 1992
Greenfield, Dawn, Instructor, BSN, Indiana Wesleyan University, 2014
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
Hawkins, Adam, Assistant Professor, BS, Morehead State University, 2010
Hycrza, Alexander L, Professor, MA, Western Kentucky University, 1990
Jones, Gordon, Instructor, AAS, Maysville Community and Technical College, 1989
King, John E, Professor, AA, Morehead State University, 2007
Klee, John R, Professor, MHE, Morehead State University, 1977
Lawson, Tiffany, Instructor, BSN, Kentucky Christian University, 2010
Lightner, Rebecca S, Professor, MSN, University of Kentucky, 1995
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
McKinney, Dallas, Instructor, BA, Morehead State University, 2010
McNutt, Mike, Instructor, BS, Western Kentucky University, 2009
Mellenkamp, Scott, Instructor, BS, University of Kentucky, 2009
Miller, John S, Associate Professor, MS, University of Kentucky, 1988
Moore, Brenda, Assistant Professor, MA, State University of New York at Binghamton, 1988
Morris, Melanie J, Associate Professor, BSN, University of Kentucky, 1991
Muensks, Martha J, Professor, MBA, University of Kentucky, 1993
Napier, Jerry, Associate Professor, PhD, University of Kentucky, 1997
Netherly, Preston, AAS, Maysville Community College, 2014
Newsom, Tyler, Instructor, AAS, Maysville Community College, 2012
Noble, Wendy, Professor, MA, Morehead State University, 2009
Ouderkirk, Jennifer, Instructor, AAS, Maysville Community and Technical College, 2011
Parker, Sally, Professor, BSN, College of Mount Saint Joseph on the Ohio, 1979
Pasley, Terry L, Professor, MA, Northern Kentucky University, 1998
Pecco, Nicholas, Associate Professor, BS Morehead State University, 2005
Peefl, Pamela, Instructor, AAS Nursing, Jefferson Community and Technical College, 1997
Perkins, Brandlin, Professor, MS, Morehead State University, 2005
Porter, Matthew, Instructor, AAS, Maysville Community and Technical College, 2010
Prater, Mary Alice, Instructor, DPT, Arcadia University, 2017
Pryor, Deri, Instructor, MFA, Eastern Kentucky University, 2017
Pugh, Rebecca, Instructor, MA, Morehead State University, 2012
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
Sloas, Thomas, Instructor, MS, University of Kentucky, 2013
Staviski, Sharon, Instructor, BS, Northern Kentucky University, 1990
Taylor, Carrie L, Associate Professor, MA, Northern Kentucky University, 2009
Teegarden, Troy, Instructor, MFA, University of Florida, 2006
Thorburn, 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
Watkins, Matthew, Instructor, AAS, Maysville Community and Technical College, 2014
Weiss, Justin A, Associate Professor, MS, Marshall University, 2009
Whitten, Brianna C, Associate Professor, MA, Georgetown College, 2004
Wilson, Luann, Instructor, BSN, Eastern Kentucky University, 1990
Wilson, Sharon G, Professor, MS, Auburn University, 1985
Wylie, Jeff B, Professor, MA, Morehead State University, 1977
Zanakis, Rena, Instructor, MA, Western Kentucky University, 2015
Zemb, 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, a member of the Kentucky Community and Technical College System, is a public two-year degree granting institution serving the Daviess and surrounding counties of Kentucky.

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

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

Academic Programs

Transfer Curricula

Associate in Arts
Associate in Science

Transfer Curricula/Art Related

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

- Theatre (A)
- Visual Art (A)

Occupational/Technical Curricula

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

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

Contact Information

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

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

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

General Information

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

President
Chief Academic Officer
Chief Business Officer
Chief Information Technology Officer
Chief Institutional Officer
Chief Student Affairs Officer
Chief Workforce Solutions Officer
Dean of Academic Affairs – Technical Programs
Dean of Academic Affairs – General Education Programs
Dean of Student Affairs

Faculty

Abell, Donna, Professor / Librarian MS, Florida State University, 2004
Achesbach, Matthew, Associate Professor, MA, San Diego State University, 2008
Ash, Angela, Associate Professor, EdD, Western Kentucky University, 2018
Baker, Michael, Assistant Professor, Certificate, Huron Area Technical College, 1987
Basham, Zara, Professor, AAS, Owensboro Community and Technical College, 2013
Boarman, Keith, Associate Professor, Murray State University, 1999
Bowlds, Barry K, Professor, AAS, Western Kentucky University, 2003
Boyd, Michael, Professor, MBA, Southwest Missouri State University, 1987
Boyl, Vicki H, Professor, MA, Murray State University, 1981
Branham, Matthew, Professor, MA, Morehead State University, 2000
Brown, Kathryn, Professor, MA, Western Kentucky University, 1994
Canales, Michael, Associate Professor, BS, DeVry University, 1987
Caplan, Geralyn M, Professor, EdD, Western Kentucky University, 2015
Cardwell, Pamela, Instructor, APRN, MSN, Albany State University, 2010
Clark, Robin, Assistant Professor, BS, Western Kentucky University, 2016
Collins, Shannon Quinette, Professor, MA, Morehead State University, 2000
Crowe, Randy Keith, Professor, BS, Western Kentucky University, 1999
DePasquale, Donna, Associate Professor, MS, Western Kentucky University, 2013
Dick, Timothy T, Professor, PhD, University of Kentucky, 2002
Ebelhar, Bethany, Associate Professor, MSN, Murray State University, 2011
Edwards, Lois M, Associate Professor, EdD, Western Kentucky University, 2017
Embry, Julie, Instructor, AA, Owensboro Community and Technical College, 2014
Ford, Constance R, Professor, DME, Indiana University, 1983
Gesser, Chad, Associate Professor, MA, Western Kentucky University, 1997
Gish, Misty, Professor, MS, Murray State University, 2001
Glenn III, Robert J, Professor, PhD, University of Southern Mississippi, 2009
Glenn, James H, Professor, EdD, University of Kentucky, 2001
Gore, Michael G, Professor, BS, Western Kentucky University, 2009
Hamilton, Cassandra, Associate Professor, MA, Western Kentucky University, 2003
Head Jr, Gerald M, Assistant Professor, MS, Western Kentucky University, 1995
Higdon, F. Martin, Associate Professor, BS, Western Kentucky University, 2018
Hildenbrandt, Daniel R, Associate Professor, MA, Southern Illinois University - Carbondale, 1982
Hirtz, Nathaniel R, Instructor, MS, Murray State University, 2006
Hoffman, Kathy, Associate Professor, MS, Catholic University of America, 1986
Huffman, Danny, Instructor, MS, Indiana University – Bloomington, 1973
Jackson, Jacqueline, Associate Professor, BS, Murray State University, 2009
James, Walter, Associate Professor, AAS, Owensboro Community and Technical College, 2017
Johnson, Connie F, Associate Professor, MBA, Morehead State University, 2006
Johnson, James L, Professor, MA, Western Kentucky University, 1987, M.A.
University of Kentucky, 1998
Johnson, Ryan, Instructor, ASE Certification, 2016
Kinney, Mary, Instructor, MA, Western Kentucky University, 2012
Kobella, Peter, Associate Professor, MA, Matej Bel University, 1998
Leach, Eddie, Associate Professor, DVM, Auburn University, 1984
Lewis, Courtland, Associate Professor, PhD, University of Tennessee, 2012
Logsdon, Connie, Assistant Professor, MA, Western Kentucky University, 1997
Lutzel, John, Professor / Librarian IV, MLS, University of Southern Mississippi, 2004
McDonough, Greta J, Professor, MSSW, Western Kentucky University, 1978
Mensir, Nadine Joyce, Associate Professor, EdD, Western Kentucky University, 2015
Monsour, Matthew, Assistant Professor, MA, Saint Meinrad School of Theology, 2010
Morris, Edward J, Professor, PhD, Southern Illinois University, 1989
Morris, Kelly, Associate Professor, PhD, University of Kentucky, 2009
Moseley, Daniel Joe, Professor, BS, Western Kentucky University, 2008
Northenor, Tonya, Professor, MFA, University of Memphis, 1999
Obiade, Anthony, Associate Professor, PhD, Southern Illinois University, 2001
Payne, Justin, Associate Professor, AAS, Owensboro Community and Technical College, 2005
Payne, Shawn, Professor AAS, Owensboro Community and Technical College, 2007
Perkins, Micah W, Professor, PhD, University of Louisville, 2016
Petersen, Brock, Assistant Professor, MPA, Western Kentucky University, 2012
Pippin, Madeline, Assistant Professor, BSN, University of Louisville, 2014
Revlett, Kimberly, Instructor, ADN, Kentucky Wesleyan College, 2000
Roff, Savannah, Instructor, RN, MSN, Western Governors University, 2018
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, Assistant Professor, Diploma, Owensboro Community and Technical College, 2005
Swanson, Susan, Professor MA, Western Kentucky University, 2007
Taylor, Fumice K, Professor, PhD, Capella University, 2015
Tudor, Michelle G, Associate Professor, AAS, Owensboro Community College, 2000
Wallace, Albert F, Professor, MBA, Xavier University, 1978
Williamson, Timothy, Instructor, MS, Northern Kentucky University, 2018
Wilson, Pamela S, Professor, MA, Southern Illinois University - Edwardsville, 1995
Wood-Graesla, Vickery A, Associate Professor, AAS, Owensboro Community and Technical College, 2003
Wright, Frederick, Instructor, ASE Certification, 2012
Mission Statement/Status of Accreditation

Somerset Community College provides high quality, affordable, and accessible education and training to create student success, economic growth, and enhanced quality of life.

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

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

Academic Programs

Transfer Curricula

- Associate in Arts
- Associate in Science

Occupational/Technical Curricula

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

- Air Conditioning Technology (C, D)
- Auto Body/Collision Repair Technology (C, D)
- Automotive Technology (C, D)
- Aviation Maintenance Technology (C, D, A)
- Business Studies:
  - Business Administration (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 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 Information Technology (C, D, A)
- Medical Laboratory Technician (C, A)
- Multi-skilled Systems Technician (C)
- Nursing (A)
- Pharmacy Technology (C, D)
- Physical Therapist Assistant (A)
- Practical Nursing (C, D)
- Radiography (C, A)
- Respiratory Care (A)
- Surgical Technology (C, A)
- Truck Driving Training (C)
- Visual Communication:
  - Design & Technology (C)
  - Multimedia (C, D, A)
  - Printing (C, D)
- Welding Technology (C, D)

Contact Information

Somerset Community College

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

SCC Laurel Campus
100 University Dr.
London, KY 40741

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

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

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

SCC Casey Center
1 Pettyjohn St.
Liberty, KY 42539

General Information

General Information (877) 629-9722
Admissions/Records 1-855-66GO-SCC (1-855-664-6722)
Business Office 1-855-66GO-SCC (1-855-664-6722)
Career Services (606) 451-6657
Disability Services (606) 451-6706
Financial Aid 1-855-66GO-SCC (1-855-664-6722)
Human Resources (606) 451-6620
Institutional Advancement (606) 451-6618
Library/Learning Commons (606) 451-6710
Lineman Training Center (606) 451-6697
Marketing/Public Relations (606) 451-6886
Transfer Center (606) 451-6650
University Center of Southern Kentucky (606) 451-6667
Veterans Affairs (606) 451-6857
Workforce Solutions (606) 451-6692
Website somerset.kctcs.edu
Administration

President/CEO
Carey Castle, EdD

Senior Vice President of Academic Affairs
Clint Hayes, EdD

Vice President of Institutional Effectiveness
Bruce Gover, EdD

Vice President of Administration
Jill Meece

Vice President of Institutional Advancement
Cindy Clouse

Vice President of Student Affairs
Larry Abbott

Vice President of Workforce Solutions
Tracy Casada

Dean of Health Sciences
Alesia Johnson

Dean of Arts and Sciences
Nancy Powell

Dean of Business and Applied Technology
Jon Burlew

Faculty

Abner, Jeffery, Assistant Professor, MS, Eastern Kentucky University, 2019
Allen, Melinda J, Associate Professor, MA, Eastern Kentucky University, 1993
Anderson, Anita W, Instructor, BS, Liberty University, 2019
Asher, Jason A, Associate Professor, MA, Lindsey Wilson College, 2010
Atkinson-Bigeloh, Johnna, Professor, MA, University of Kentucky, 1988
Ballard, Linda K, Professor, EdD, Eastern Kentucky University, 2016
Barnes, Kelly J, Associate Professor, MS, Eastern Kentucky University, 2006
Beatty, Frances M, Associate Professor, AS, Eastern Kentucky University, 1986
Bell, Christopher D, Instructor, AAT, Somerset Community College, 2001
Bentley, Sheila D, Associate 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
Bottoms, Tabitha A, Assistant Professor, Ky. Board of Cosmetology Instructor License, 2014
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
Broyles, Angela W, Associate Professor, MS, Eastern Kentucky University, 1999
Burlew, Jonathan W, Professor, MS, Fort Hayes State University, 1993
Burton, Cindy L, 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
Caldier, Michael V, Instructor, AAS, Somerset Community College, 2017
Cash, Curtis F, Professor, MA, Union College, 2007
Childress, Margaret L, Associate Professor, MBA, Morehead State University, 2008
Cleberg, Kimberly S, Associate Professor, MA, Eastern Kentucky University, 2001
Colley, David A, Associate Professor, MS, Eastern Kentucky University, 2015
Conaway, Vicki L, Professor, MSN, University of Kentucky, 1984
Crabtree, Christy M, Instructor, AAS, Somerset Community College, 2005
Dalton, Melissa A, Instructor, MA, Eastern Kentucky University, 2006
Deaton, Eric D, Associate Professor, MS, Eastern Kentucky University, 1997
Decker, Doyle B, Assistant Professor, MA, California State University, 2010
Duvall, Billie S, Professor, MSN, Eastern Kentucky University, 2012
Eastham, Donna S, Professor, M.A.Ed., Western Kentucky University, 1994
Eastham, Tamara K, Assistant Professor, MSN, Eastern Kentucky University, 2006
Elam, Debra L, Associate Professor, AS, Somerset Community College, 2014
Farmer, Adam C, Assistant Professor, BS, Berea College, 2004
Feldman, Samantha B, Assistant Professor, BS, Eastern Kentucky University, 2004
Franklin, Tracey L, Assistant Professor, BA, Midway College, 2014
Fries, Wanda F, Professor, MFA, Bennington College, 1986
Fugate, Dena L, Instructor, AAS, Somerset Community College, 2009
Gild, Belinda P, Associate Professor, MA, Eastern Kentucky University, 2002
Gammage, Simeon D, Associate Professor, AAS, Somerset Community College, 2010
Gaskin, Tom P, Associate Professor, MS, Eastern Kentucky University, 2007
Graham, Gerald M, Associate Professor, AAS, Somerset Community College, 2000
Graves, Heather, Instructor, BS, Northern Kentucky University, 2018
Greene, Charles D, Instructor, BS, Eastern Kentucky University, 2017
Grover, Alysia A, Professor, MA, Southwest Missouri State University, 1989
Hammons, John S, Professor, DPT, Shenandoah University, 2006
Harris, James Ricky, Associate Professor, AAS, Somerset Community College, 2007
Harris, Jeffrey D, Professor, MA, Eastern Kentucky University, 1998
Hawk, Jillisa D, Assistant Professor, MSN, Eastern Kentucky University, 2008
Henson, LeAnn D, Instructor, BS, Northern Kentucky University, 2019
Hinkle, Teresa G, Assistant Professor, MS, Eastern Kentucky University, 2010
Horn, Amanda S, Instructor, MS, Marshall University, 2008
Hosclaw, Ashley D, Instructor, BS, Northern Kentucky University, 2019
House, Debra J, Professor, MS, University of Kentucky, 1994
Howe, Julie M, Associate Professor/Librarian, MLSL, University of Kentucky, 2010
Huffaker, Lorna S, Professor, MSN, Eastern Kentucky University, 2003
Huntsman, Mary Taylor, Professor/Library, MA/MLS, University of Kentucky, 1994
Jacques, Kenneth R, Professor, MBA, Ball State University, 1987
Johnson, Kelly R, Associate Professor, MS, Eastern Kentucky University, 2003
Kilgore, April L, Professor, PhD, University of Kentucky, 1994
Kidd, Kimberly L, Assistant Professor, AAS, Temple College, 1999
Lawless, Gary W, Instructor, AAS, Somerset Community College, 2017
Lawson, Darlene, Instructor, Diploma, Hazard Community and Technical College, 1999
Lewis, Kathy S, Professor, MS, Eastern Kentucky University, 1994
Logan, Donna L, Professor, MA, Eastern Kentucky University, 1997
Mace, Ronald W, Associate Professor, MA, Morehead State University, 1984
Martin, Ruth S, Professor, DNP, Western Kentucky University, 2017
Martinez, George M, Professor, MS, Murray State University, 1991
Matika, Richard S, Associate Professor, EdD, University of Kentucky, 2012
McClendon, Steven S, Associate Professor, EdD, University of the Cumberland, 2012
McQueen, Travis, Professor, MS, Eastern Kentucky University, 2001
Meade, Ronald L, Professor, DPT, Shenandoah University, 2006
Meier, Tina M, Assistant Professor, AAS, Somerset Community College, 2010
Merritt, Lorrenda D, Assistant Professor, BA, Eastern Kentucky University, 2005
Metcalfe, Virginia E, Associate Professor, MS, Eastern Kentucky University, 2002
Mills, Angela H, Associate Professor, BS, Northern Kentucky University, 2012
Mills, Crayton T, Associate Professor, PhD, Capella University, 2015
Mitchell, John W, Instructor, KY. Commercial Driver’s License, 2018
Morris, Amanda K, Associate Professor, MA, University of Kentucky, 2009
Muse, Dana L, Professor, MS, University of Kentucky, 1998
Nazario, Eduardo C, Associate Professor, AS, Sullivan University, 2005
Noel, Megan L, Instructor, AAS, Somerset Community College, 2011
Null, George Curtis, Assistant Professor, AAS, Lexington Electronic Institute, 1995
Osborne, Roger, Professor, MA, University of Louisville, 2002
Owens, Jennifer, Associate Professor, AAS, Somerset Community College, 2008
Peterson, Betty W, Professor, MA, University of Kentucky, 1986
Phelps, David A, Associate Professor, AAS, Somerset Technical College, 2004
Phelps, Devin M, Associate Professor/Library, MLSL, 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, MA.A.Ed., Eastern Kentucky University, 1987
Price, Carol A, Associate Professor, MSN, Eastern Kentucky University, 2014
Ramo, Cecilia R, Associate Professor, PhD, Washington State University, 1996
Randall, Marc P, Associate Professor, MA.A.Ed., Eastern Kentucky University, 2011
Ratliff, Donna R, Professor, MA.A.Ed, Eastern Kentucky University, 1999
Reynolds, Michael K, Instructor, AAS, Somerset Community College, 2019
Roberts, Laura E, Associate Professor, BSN, Eastern Kentucky University
Shearer, Elizabeth A, Professor, MA, Western Kentucky University, 1988
Shelton, Billie J, Professor, DNP, Eastern Kentucky University, 2017
Sherman, Gary J, Professor, MS, University of Wyoming, 1979
Shook, Beverly S, Instructor, BS, Western Governors University, 2017
Simpson, William Stuart, Professor, MS, Eastern Kentucky University, 2004
Slevin, Amy, Instructor, MA, Old Dominion University, 2014
Smith, Martin E, Instructor, MA, Pine Manor College, 2019
Spencer, Robert T, Professor, MA, Eastern Kentucky University, 1993
Stephens, Erin, Associate Professor, MA, Eastern Kentucky University, 2007
Stovall, Charles C, Instructor, Knox County Vocational School, 1976
Stringer, Gail S, Professor, MS, Eastern Kentucky University, 1989
Stringer, Scott H, Instructor, AAS, Somerset Community College, 2013
Taylor, Guy L, Instructor, BS, University of Kentucky, 1981
Taylor, James H, Associate Professor, MA, Eastern Kentucky University, 2002
Thacker, James R, Instructor, AAS, Somerset Community College, 2018
Thomas, Janice E, Associate Professor, MSN, Eastern Kentucky University, 2008
Tinker, James E, Assistant Professor, AAT, Somerset Technical College, 2000
Toby, Kimberly L, Associate Professor, MS, University of Kentucky, 1998
Tomlinson, Nick, Professor, MS, Eastern Kentucky University, 2006
Tomlinson, Victoria M, Instructor, MSN, Capella University, 2018
Upchurch, Joni M, Associate Professor, BS, Eastern Kentucky University, 2016
Ware, Lisa N, Associate Professor, MAEd, Eastern Kentucky University, 2010
Waterstrat, Amanda J, Professor, PhD, University of Kentucky, 2009
Watson, Karl D, Professor, BS, Eastern Kentucky University, 2002
Watters, Tammy R, Professor, BSN, Eastern Kentucky University, 2015
Weatherford, Megan S, Instructor, MA, Western Kentucky University, 2013
Wells, Michael E, Associate Professor, BS, Indiana Wesleyan University, 2013
Westerfield, Mary Jo, Instructor, ASN, Eastern Kentucky University, 1991
Wheat, Dee A, Associate Professor, MS, Northern Kentucky University, 2019
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

Southcentral Kentucky Community and Technical College’s mission is to improve the quality of life through education focused on career development, community partnerships, and economic growth.

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 (C, D, A)
  - Computer and Information Technologies (C, A)
  - Computerized Manufacturing and Machining (C, D, A)
  - Culinary Arts (C, D, A)
- Diesel Technology (C, A)
- Emergency Medical Services – Paramedic (C)
- Engineering and Electronics Technology (C, D, A)
- Fire 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)
- Medical Information Technology (C, D, A)
- Nursing (A)
- Practical Nursing (C, D)
- Radiography (A)
- Respiratory Care (A)
- Surgical Technology (A)
- Truck Driving Training (C)
- Welding Technology (C, D, A)

Contact Information

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

Off Site Locations

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

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

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

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

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

General Information

Admissions
(270) 901-1094

Adult Education & Literacy
(270) 901-1013

Business Office
1-855 246-2482

Workforce Solutions
(270) 901-1033

Assessment & Testing
(270) 901-1036

Disability Services
(270) 901-1202

Financial Aid
1-855-246-2482

Human Resources
(270) 901-1115

Resource Development
(270) 901-1116

Library
(270) 901-1155

Public Relations
(270) 901-1117

Records
(270) 901-1001

Transfer Information Liaison
(270) 901-1001

Veterans Affairs
(270) 901-1003

Website
(270) 901-1160

Denna White
Brian Becker
Jennifer Noble
Dr. Kim Myers
Elaine Yates
Kayla LaMure
Jennifer Noble
Sherri Forester
Heather Rogers
Kathryne LeFevre
Mark Brooks
Amy Cannon
Brooke Justice
Shawn Stovall
Josh Henderson
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 (C, A)
  - Computer Aided Drafting and Design (C, D)
  - Computer and Information Technologies (C, A)
- Computerized Manufacturing and Machining (C, D)
- Construction Technology (C, D)
- Criminal Justice (C, A)
- Diesel Technology (C, D, A)
- Education (A)
- Emergency Medical Services – Paramedic (C)
- Emergency Medical Technician (C)
- Engineering Related – Project Lead the Way (PLTW) (C)
- Engineering and Electronics Technology (C, D)
- General Occupational/Technical Studies (A)
- Health Care Foundations (C)
- Human Services (C)
- Interdisciplinary Early Childhood Education (C)
- Manufacturing Industrial Technology:
  - Electrical Technology (C, D)
  - Industrial Maintenance Technology (C, D)
- Medical Assisting (C, D)
- Medical Information Technology (C, D)
- Mining Technology (C)
- Nursing (A)
- Nursing — Academic/Career Mobility (D)
- Physical Therapist Assistant (A)
- Practical Nursing (C)
- Professional Craft: Pottery (C)
- Radiography (C, A)
- Respiratory Care (A)
- Social Media Marketing (C)
- Surgical Technology (D, A)
- Surveying & Mapping Technology (C)
- Telehealth Technician Associate (C)
- Welding Technology (C, D)
- Workplace Safety Specialist (C)

Contact Information

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

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

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

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

Whitesburg Campus
2 Long Avenue
Whitesburg, KY 41858
(606) 633-0279
Academics: Kevin Lambert
Admissions: Felicia Carroll
Bookstore: Stephanie Jenkins
Business Affairs: Sandy Mays
Director of Advising: Sherry Tinsley
Disability Services: Michael Ingram
Financial Aid: Barbara Gent
Human Resources: Billie Franks
Library: Lynn Cox
Marketing: Shawn Lind
President's Executive Assistant: Paul Bryant
Public Relations: Amy Simpson
Recruiting: Kim Maynard
Registration/Records: Anita Barnhill
Transfer/Career Information Liaison: Joe Sutton
Veterans Affairs: Kim Hobbs
Website: southeast.kctcs.edu
Workforce Solutions: Sherri Clark

### Administration

President/CEO: Dr. Michelle Dykes-Anderson
Vice President of Academic Affairs Officer: Dr. Rebecca Parrott
Vice President of Student Affairs Officer: Dr. Carolyn Sundry
Vice President of Cultural Diversity Officer: Dr. Stephen Adams
Vice President of Institutional Advancement Officer: Dr. Kathei Ditty
Vice President of Business Affairs Officer: Shauna Linn
Associate Dean of Academic Affairs: Kevin Lambert
Campus Director Cumberland & Harlan Campus: Elijah Buell
Campus Director Middleboro & Pineville Campus: Dr. Rebecca Parrott
Campus Director Whitesburg Campus: Deborah Young
Chief Information Technology Officer: Merrill Galloway
Director of Academic Support: Billie Franks
Director of Human Resources: Shawn Lind
Director of Operations: Elijah Buell
Director of Public Relations: Amy Simpson
Director of Safety and Security: Allen Layne
Director of Workforce Solutions: Sherri Clark
Division of Allied Health and Related Technologies/Nursing: Wendy Wright
Division of Business and Technical Studies: Ronnie Daniels
Division of Humanities and Social Sciences: Peggy Conklin
Division of Industrial Technology: Ronnie Daniels
Division of Natural Science, Mathematics & Related Technologies: Joseph Johnson

### Faculty

Abrams, Emily, Assistant Professor, BS, King University, 2014
Ahlstelt, Lisa A, Librarian I, MS, University of Tennessee, 1995
Arwood, Ruthellen, Assistant Professor, BSN, University of the Cumberlands, 2017
Bargo, Glenna, Associate Professor, MSN, Eastern Kentucky University, 2008
Barrick, Lisa, Associate Professor, MED, Lincoln Memorial University, 2010
Blanton, Scott, Professor, MSN, Northern Kentucky University, 2011
Bowling, Kenneth N, Professor, BS, Union College, 2003
Bowling, Tracy, Professor, PT, DPT, University of Kentucky, 2010
Bowling, Roger A, Professor, MS, Eastern Kentucky University, 2000
Brooks, Lana, Associate Professor, MSN, Western Kentucky University, 2014
Buell Jr, Elijah, Professor, MBA, Morehead State University, 1980
Burnside, Patricia, Professor, MA Ed, Tusculum College, 2007
Carmack, Michael E, Professor, AAS, Harlan Regional Technology Center, 1995
Chapman, Tammie, Professor, MA, Cumberland College, 1995
Clatts, David W, Professor, EdD, Liberty University, 2010
Collier, William G, Professor, MA, Eastern Kentucky University, 1992
Conklin, Peggy, Professor, MA, Morehead State University, 1985
Conover, Edwin Wheeler, Professor, PhD, Cincinnati, 1996
Cox, Donna, Associate Professor, MA, Union College, 1973
Cox, Lynn, Librarian I, MS, University of Kentucky, 1994
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, Med, Lindsey Wilson College, 2004
Dixon, Jill Suzanne, Associate Professor, DPT, University of Kentucky, 2011
Drucen, Matthew, Professor, PhD, University of Louisville, 2010
Dyer, Bradley, Professor, M.S., Eastern Tennessee State University, 1999
Eldahan, Ismael A, Associate Professor, MS, American Sentinel University, 2008
Eldridge, Tracy, Assistant Professor, BS, Lincoln Memorial University, 2010
Epling, Michael, Professor, MBA, Morehead State University, 1995
Fields, Brian, Associate Professor, M.S., Everest University, 2010
Forson-Scopa, Elana, Associate Professor, MS, Eastern Kentucky University, 2003
Givens, Christie, Instructor, BSN, South University, 2016
Good, Michael S, Professor, MS, Eastern Kentucky University, 2001
Gordon, Sheila, Professor, MLS/MSW, University of Kentucky, 2014/1995
Halcomb Jr, Astor, Professor, BIS, Morehead State University, 1992
Handlir, Kate, Instructor, MA, Virginia Tech, 2020
Helton, Melissa, Associate Professor, EdD, Eastern Kentucky University, 2018
Herren, Douglas, Professor, AAS, Southeast Kentucky Community and Technical College, 2006
Hicks, Kerry, Instructor, MSN, University of Mississippi, 2005
Holbrook, Sandy, Professor, EdD, Eastern Kentucky University, 2016
Hughes, Carlton W, Professor, MA, Marshall University, 1987
Jackson, Terri, Associate Professor, MSN, Western Kentucky University, 2014
Jent, Brandon, Instructor, MA University of Kentucky, 2010
Johnson, Joseph, Associate Professor, PhD, Clemson University, 2010
Jones, Jamie, Associate Professor, MA, Eastern Kentucky 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, Professor, CST, BA, Ashford University 2007
Marcum, Joseph S, Professor, MA, University of Tennessee, 1980
Mayes, Caroline, Associate Professor, MA, National University, 2007
Miller, Rebecca D, Professor, MA, Union College, 1998
Mills, Dana, Assistant Professor, AAS, Fugazi College, 1999
Nolan, Jennifer, Assistant Professor, AAS Nursing, Southeast Community College, 1986
Omar, Sach, Associate Professor, PhD, Mississippi State University, 1987
Pace, Natsoto, Assistant Professor, BSN, Eastern Kentucky University, 2007
Parks, Halsey, Instructor, MS, Lincoln Memorial University, 2019
Pennington, Joy, Associate Professor, MSN, Chamberlain College of Nursing, 2013
Pope, Ryland, Instructor, MA, University of Tennessee, 2012
Seng, Joseph A, Professor, MFA, Pennsylvania State University, 1976
Shepherd, Deborah Ann, Instructor, BSN, Chamberlain University, 2018
Shoope, Tina, Associate Professor, MSN, Chamberlin College, 2013
Silver, Roy, Professor, PhD, University of Toledo, 1982
Simpson, Amelia, Professor, MFA, Spaulding University, 2013
Singh, Rajiv, Assistant Professor, MS, University of North Dakota, 2012
Szemore, Whitney, Instructor, BSN, University of the Cumberlands, 2019
Smith, Marshall, Associate Professor, AAS, Southeast Kentucky Community and Technical College, 2011
Steenbergen, Gary L, Professor, MS, Eastern Kentucky University, 1996
Stewart, Jenny, Assistant Professor, BS, University of Kentucky, 1982
Sundy, Carolyn M, Professor, Ph.D., Mississippi State University, 2017
Turner, Mary Leann, Associate Professor, BS from EKU, 1994
Turner, Deliah, Associate Professor, BS, Eastern Kentucky University, 2013
Vaughn, Jamie, Professor, MBA, University of Kentucky, 1981
Walker, Robert, Associate Professor, AAS, Southeast Kentucky Community and Technical College, 2016
Webs, Danny, Associate Professor, MA, Eastern Kentucky University, 1994
White, Paula, Associate Professor, MSN, University of Louisville, 2007
Wright, Wendy, Professor, MS, Eastern Kentucky University, 2015
West Kentucky Community and Technical College

Mission Statement/Status of Accreditation

West Kentucky Community and Technical College champions student success, provides excellence in teaching and learning, and advances economic development. The College:

• advances academic excellence and intellectual inquiry through the collaboration between engaged learners and dedicated faculty and staff;
• provides premier academic and student services to foster student success;
• delivers innovative, flexible access to education with pathways to transfer and/or employability;
• cultivates community partnerships as an integral component in assessing and providing programs for cultural, educational, economic, and civic development;
• responds to community needs through customized training and continuing education to meet the changing demands of regional business and industry; and
• fosters a campus culture advancing diversity and inclusion and promoting equity and global responsibility.

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

Contact Information

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

Accessibility Services  (270) 534-3406  
Admissions/Records  1-855-GO-WKCTC (1-855-469-5282)  
Advising Center  1-855-GO-WKCTC (1-855-469-5282)  
Adult Learning Center (Adult Education/GED program)  
McCracken County  (270) 534-3451  
Graves County  (270) 856-2422  
Assessment Center  1-855-GO-WKCTC (1-855-469-5282)  
Bookstore (Anderson Technical Building)  (270) 534-3247  
Business Office  1-855-GO-WKCTC (1-855-469-5282)  
Challenger Learning Center  (270) 534-3101  
Clemens Fine Arts Center Box Office  (270) 534-3212  
Community Education  (270) 534-3335  
Commonwealth Middle College  (270) 534-3350  
Financial Aid  1-855-GO-WKCTC (1-855-469-5282)  
General Information  (270) 534-9200  
Human Resources  (270) 534-3091  
Library  (270) 534-3197  
Nursing  (270) 534-3466  
Marketing and Communications  (270) 534-3083  
Paducah School of Art & Design  (270) 534-3901  
Purchase Training Center (Mayfield)  (270) 247-9633  
Security  (270) 564-8403  
Skilled Craft Training Center (Mayfield)  (270) 856-2400  
Workforce Solutions Assessments  (270) 534-3490  
Transfer Advising Center  (270) 534-3187  
TRIO - Student Support Services  (270) 534-3180  
University of Kentucky College of Engineering  (270) 534-3129  
Veterans Affairs  (270) 534-3187  
Website  westkentucky.kctcs.edu

**Administration**

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

**Faculty**

Abramson, Jonathan D, Instructor, DCS, Colorado Technical University, 2012  
Adkins, Rhonda J, Professor, MA, Murray State University, 1985  
Aho, Paul R, Associate Professor, MFA, University of South Florida, 1979  
Akin, Selena R, Professor, EdD, Vanderbilt University, 2010  
Armbruster, Teresa D, Instructor, MSN, Bellarmine University, 1993  
Arnone, Samuel J, Associate Professor, BS, Southern Illinois University, 1998  
Ashmore, Teresa L, Instructor, BSN, Purdue University, 2012  
Balcerzak, Amanda C, Instructor, PharmD, University of Kentucky, 2009  
Barrett, Beverly J, Instructor, PhD, Capella University, 2018  
Bell, Kristy M, Instructor, MSN, Chamberlain University, 2020  
Blaine, Patricia A, Professor, MA, Fort Hays State University, 1981  
Broadbent, Kathryn P, Assistant Professor, PhD, University of Louisville, 1988  
Buchanan, Patrice A, Professor, MS, Murray State University, 2016  
Burgess, Melissa A, Assistant Professor, MS, Murray State University, 2000  
Cahill, Charles S, Associate Professor, MS, California Polytechnic State University, 2009  
Caldwell, Paul H, Associate Professor, BS, Murray State University, 2016  
Campbell, Mary J, Instructor, MS, Southern Illinois University, 1993  
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, Dustin J, Instructor, AAS, West Kentucky Community and Technical College, 2018  
Darnell, Joshua R, Instructor, Welding certifications, West Kentucky Community and Technical College, 2015  
Dickerson, Craig T, Professor, AAS, West Kentucky Community and Technical College, 2008  
Dobbins, Charity D, Instructor, MSN, McKendree University, 2017  
Donner, Jason W, Associate Professor, MA, Murray State University, 1995  
Dotson, Megan E, Associate Professor, MAE, Murray State University, 2010  
Draden, Carla K, Professor, MBA, Murray State University, 1987  
Driver, Timmy E, Associate Professor, AAS, West Kentucky Community and Technical College, 2006  
Dubois, Evin D, Instructor, MFA, University of Illinois at Urbana-Champaign, 2017  
Duncan, Gwendolyn L, Assistant Professor, MA, International Theological University, 2006  
Durbin, Laura R, Professor, MSN, Indiana Wesleyan University, 2013  
Durbin, Melissa N, Instructor, MPA, Murray State University, 2006  
Engelhard, Erik J, Assistant Professor, AAS, West Kentucky Community and Technical College, 2010  
Esau, Emily R, Instructor, MFA, Academy of Art University, 2016  
Farrell, Laura K, Instructor, BS, Mississippi University for Women, 2009  
Fiser, Angela M, Instructor, MSN, Chamberlain University, 2016  
Gar, Joseph D, Instructor, PhD, University of the Cumberlands, 2015  
Gericke, Kevin L, Professor, PhD, Virginia Polytechnic Institute, 1994  
Gholson, Shari D, Professor, DNP, Northern Kentucky University, 2017  
Goodaker, Gary W, Professor, MS, University of Illinois at Urbana Champaign, 1997  
Green, Curtis D, Assistant Professor, AAS, Southern Illinois College, 2009  
Gunn, Robert G, Associate Professor, BA, University of Alaska Fairbanks, 1981  
Harper, Shawn, Professor, MS, Murray State University, 1990  
Hely, Sueanne W, Professor, MBA, Murray State University, 1983  
Henderson, Tyrone F, Associate Professor, EdD, Murray State University, 2017  
Henry, Gretta G, Associate Professor, MS, Murray State University, 2004  
Hofer, William S, Assistant Professor, AAS, West Kentucky Community and Technical College, 2011  
Holland, Virgil T, Associate Professor, AS, Murray State University, 2012  
Hopper, Carrie D, Associate Professor, MS, Murray State University, 2008  
Jarvis, DeAnn, Professor, MEd, Memphis State University, 1989  
Johnson, David C, Instructor, AAS, Ivy Tech Community College, 2008  
Johnson, Jonathan B, Associate Professor, MS, Bellevue University, 2012  
Jones, Lota, Associate Professor, DC, Life University, 2001  
Jordan, Tracy L, Associate Professor, MA, Murray State University, 1986  
Keeling, LeeAnn, Instructor, BSN, Chamberlain University, 2017  
Knapp, Jo A, Professor, MA, Murray State University, 1990  
Lee, Bobby A, Professor, PhD, University of Kentucky, 2018  
Liu, Sarah S, Associate Professor, MS, California Polytechnic State University, 2009  
Lynes, Vanessa E, Instructor, PhD, University of Missouri-Columbia, 2015  
Mahoney, Joseph D, Professor, MA, Murray State University, 1990  
Martens, Amelia R, Instructor, MSED, Indiana University, 2013  
Maupin, Mary E, Instructor, MA, Missouri State University, 2008  
McCandless, Tracy L, Instructor, BSN, Arkansas State University, 2010  
McGuirk, Stephanie K, Professor, MS, Murray State University, 1999  
Morgan, Tiffany S, Professor, MA, Murray State University, 1998  
Mulcahy, Carissa A, Instructor, BSN, University of Missouri-Kansas City, 2013  
Neitzke, Tanya M, Instructor, AAS, Southern Illinois University Carbondale, 2011  
Newborn, Bradley C, Assistant Professor, BS, Morehead State University, 2018
Nickell, David L, Professor, MA, Western Kentucky University, 1982
Paul, Kelly K, Instructor, MA, Murray State University, 2010
Petitt, Christy L, Professor, MSN, University of Southern Indiana, 2007
Potts, Gregory S, Instructor, BAE, University of Kentucky, 2017
Powell, Lyman R, Assistant Professor, AAS, John A. Logan College, 1988
Quimby, Beverly F, Professor, BS, Mid-Continent University, 2007
Ragsdale, Tina L, Associate Professor, MS, Southern Illinois University at Carbondale, 2008
Reese, Gary L, Associate Professor, MPA, Murray State University, 1987
Renfrow, Sarah B, Instructor, BSN, Murray State University, 2007
Robbins, Ronald W, Instructor, MS, Murray State University, 2010
Russell, Kimberly G, Professor, MA, Southeast Missouri State University, 2000
Savage, Kimberly J, Assistant Professor, BS, Murray State University, 2003
Senn, Catherine E, Professor, PhD, University of the Cumberlands, 2019
Shreves, Michelle R, Instructor, BSN, McKendree University, 2018
Shurley, Britton M, Associate Professor, MFA, Indiana University, 2007
Sills, Eric W, Instructor, AAS, West Kentucky Community and Technical College, 2015
Simmons, Randall R, Professor, MFA, University of Cincinnati, 1995
Smith, Mary Allison, Professor, MS, University of Colorado at Denver, 1998
Stephenson, Lisa G, Professor, EdD, University of Kentucky, 2012
Stoffel, Claudia A, Professor, MSN, Bellarmine College, 1992
Sullivan, Amy L, Librarian IV, MSLS, University of Kentucky, 2017
Taveras, Victor M, Associate Professor, PhD, Pennsylvania State University, 2009
Taylor, Brent E, Associate 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, Professor, MAT, Murray State University, 1999
Toon, Nichole M, Professor, MS, Murray State University, 2016
Uthoff, Candace N, Instructor, AAS, Paducah Community College, 1992
Vos, John D, Professor, MBA, Murray State University, 1989
Wade, Constance L, Instructor, AAS, Paducah Community College, 1991
Wadlington, Corey M, Professor, MAE, Austin Peay State University, 1999
Walker, Robin N, Instructor, MBA, Murray State University, 2003
Warren, Doralyn A, Instructor, BSN, Indiana Wesleyan University, 2012
Watson, Stacey A, Instructor, MA, Fort Valley State University, 2015
Webb, Alecia M, Instructor, BSN, Chamberlain University, 2019
Wooley, Kristyn L, Instructor, Licensed Cosmetologist and Instructor, KY Board of Cosmetology
Wright, Kelly R, Professor, MS, Murray State University, 1984
Applying for Admission

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

Admission and Registration Procedures

Prospective students visit the college’s website to complete an online application or contact the admission office of the college they wish to attend and request an admission application.

The full and proper name of the student and KCTCS student ID number must be used in registration and for all other official purposes.

Freshmen entering a college for the first time will be required to send an official copy of their high school transcript, GED, or state approved high school equivalency to the admission office of the college they plan to attend. Official high school transcripts submitted to KCTCS may be shared with all KCTCS Colleges.

Applicants entering with transfer credit must have an official transcript from each college attended forwarded to the admission office of the College they plan to attend. Official transcripts submitted to KCTCS may be shared with all KCTCS Colleges.

Applicants should submit evidence of college readiness as established by the KY Council on Postsecondary Education (CPE) http://cpe.ky.gov/policies/academicaffairs/collegereadinessindicators2019.pdf which includes results of the American College Test® (ACT), KYOTE, Scholastic Aptitude Test® (SAT), ALEKS and GED College Readiness scores. Applicants who have not achieved college readiness based on one of the CPE recognized readiness assessments must complete a placement examination recognized in the KCTCS Assessment and Placement Policy and administered by any KCTCS college. For specific information regarding course placement, students should refer to the KCTCS Assessment and Placement Policy, which is available on the website at https://policies.kctcs.edu/administrative-policies/4-13.aspx

Admission to a college does not guarantee admission to a specific program. Applicants seeking admission to an occupational/technical program at any KCTCS college should contact the admission office of the college of interest for information regarding any special requirements for program admission.

Applicants must submit an application for admission and supporting documents prior to the first day of classes of the term or session for which the student plans to enroll. Some colleges, however, may have an earlier deadline date. Students should check with the admission office of the college they plan to attend for registration/application deadlines.

A student who applies for admission to a KCTCS college will receive instructions to establish access to Student Self-Service. Student Self-Service allows a student access to many services such as registration, grades, class schedule, financial aid awards, bill payment and many other services.

All enrolled KCTCS students will be given access to a KCTCS-assigned email account. Official communication from faculty and student service personnel will be sent to this address. Students will continue to have access to this account as long as they are enrolled.

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

Non-Degree/Non-Credential Students

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

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

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

High School Students

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

Dual Credit:

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

To enroll and obtain college credit in a dual credit course student must:

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

Tuition for a dual credit course is 2/5 of the per credit hour tuition charged by KCTCS for in-state students.

There are a number of people available to assist students with information and assistance for dual credit at each KCTCS college. Their contact information is available at: https://kctcs.edu/dual-credit/contacts

More information about dual credit is available at: kctcs.edu/dual-credit and on individual college websites.
Dual Enrollment:

Students who want to take a course that is not eligible for, or offered for, dual credit may do so as a dually enrolled student. For these courses, students must adhere to the admission requirements required of non-degree/non-credential student. Tuition for a dual enrollment course is the standard KCTCS tuition.

Freshmen Entering College for the First Time

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

Second Chance Students

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

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

Transient/Visiting Students

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

International Students

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

Readmission after Two or More Years: Academic Bankruptcy

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

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

Students with Previous College Work

An applicant who has previously attended an accredited college or university which awards degrees at the associate level or higher and who has an overall grade point average of at least 2.0 on a 4.0 scale in all course work attempted will be accepted for admission. For specific information on course placement, applicants should refer to the KCTCS Assessment and Placement Policy, which is available on the website at https://policies.kctcs.edu/administrative-policies/4-13.aspx.

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. Official post-secondary transcripts submitted to KCTCS may be shared with all KCTCS colleges.

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

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

Change of Program

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

KCTCS Assessment and Placement Policy

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

General Provisions

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

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

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

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

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

G. Approved methods of assessment and placement are:

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

Special Provisions

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

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

B. Change in Quantitative Reasoning/Math Pathway

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

C. Alternative Remediation

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

D. Accommodations

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

F. Waivers

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

Due to the COVID-19 pandemic, your KCTCS College may have established a procedure to exempt students from the KCTCS Assessment & Placement criteria during the Fall 2020, Spring 2021, and Summer 2021 terms. Please contact your KCTCS College advisor and/or Student Services Office for information on Assessment & Placement for the 2020-21 academic year.
Tuition and Charges

Tuition and Charges vary based on whether a student is a Kentucky resident, non-resident, or resident of a contiguous county of a contiguous state. Tuition and charges are on a per credit hour rate, including courses that are audited. For questions regarding residency status and guidelines, see Appendix A. All tuition and charges are payable in full prior to the beginning of classes for each session of the term unless prior arrangement has been made with the college business office. Consult your local college business office for specifics.

Charges will vary by service and are non-refundable. Contact your college’s business office for a listing of all charges. Charges for services are non-refundable unless specifically stated as refundable. Consult with your college business office for specifics.

Mandatory Student Fee

A mandatory student fee of $8 per credit hour will be assessed in the 2020-2021 academic year. Questions regarding fees may be directed to your college’s business office.

Charges for Customized Course Offerings

Some courses, including courses created specifically upon request (credit or non-credit) may have additional charges. The additional charge, depending upon the requirements of developing and producing the customized course or program offerings, will vary depending upon the length and content of the course or program offerings. 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.

Charge 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: Proctored Testing, returned check charge, transcripts, lost library book and ID replacement charges. 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 list 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 affair for application requirements.

Cancellation of Registration for Non-Payment of Charges

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

Payment Plan Options

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

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

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

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

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

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

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

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

Students cancelled for non-payment after the last day to enter an organized class may not be reinstated for that session. If 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.

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

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

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

Refunds for KCTCS Online Learn by Term courses 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 on Demand courses is as follows:

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

KCTCS Online Learn on Demand

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

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

<table>
<thead>
<tr>
<th>Session</th>
<th>100%</th>
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<td>16-week</td>
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<td>After 29th day</td>
</tr>
<tr>
<td>15-week</td>
<td>Within 7th day</td>
<td>8th - 27th days</td>
<td>After 28th day</td>
</tr>
<tr>
<td>14-week</td>
<td>Within 6th day</td>
<td>7th - 25th days</td>
<td>After 25th day</td>
</tr>
<tr>
<td>13-week</td>
<td>Within 6th day</td>
<td>7th - 24th days</td>
<td>After 24th day</td>
</tr>
<tr>
<td>12-week</td>
<td>Within 5th day</td>
<td>6th - 22nd days</td>
<td>After 22nd day</td>
</tr>
<tr>
<td>11-week</td>
<td>Within 5th day</td>
<td>6th - 20th days</td>
<td>After 20th day</td>
</tr>
<tr>
<td>10-week</td>
<td>Within 4th day</td>
<td>5th - 18th days</td>
<td>After 18th day</td>
</tr>
<tr>
<td>9-week</td>
<td>Within 4th day</td>
<td>5th - 16th days</td>
<td>After 16th day</td>
</tr>
<tr>
<td>8-week</td>
<td>Within 4th day</td>
<td>5th - 15th days</td>
<td>After 15th day</td>
</tr>
<tr>
<td>7-week</td>
<td>Within 3rd day</td>
<td>4th - 13th days</td>
<td>After 13th day</td>
</tr>
<tr>
<td>6-week</td>
<td>Within 2nd day</td>
<td>3rd-10th days</td>
<td>After 10th day</td>
</tr>
</tbody>
</table>
5 week  Within 2nd day  3rd-9th days  After 9th day
4 week  Within 1st day  4th-7th days  After 7th day
3 week  Within 1st day  2nd-5th days  After 5th day
2 week  Within 1st day  2nd-4th days  After 4th day
1 week  Within 1st day  2nd-2nd days  After 2nd day

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

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

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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.

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**Professional Liability Insurance**

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

Overview

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

Student Eligibility and Application

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

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

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

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

Dual Enrollment/Consortium Agreements

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

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

State Programs

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

Statutory Scholarships (Waivers) for Kentucky Residents

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

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

KCTCS and College Scholarships for Kentucky Residents

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

Additionally, each year, individuals, organizations and companies make funding available for scholarships to various KCTCS colleges. The amount and criteria for these awards 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 of the KCTCS institutions offer tuition scholarships. Among these scholarships are: foundation scholarships; need-based; program-specific; KCTCS Employee Spouse/Dependents, and Securing Educational Excellence in Kentucky Scholarship (SEEK). Please contact your local college for specifics.
Third Party Assistance Programs

There are a wide number of outside agencies who offer educational assistance and other services to students. Included among them are Kentucky Department of Veterans Affairs, Kentucky National Guard, Kentucky Office of Vocational Rehabilitation, and Kentucky Office for the Blind. A more detailed listing and brief description of the programs they offer and contacts for each can be found on the KCTCS Website. Additionally, local social service agencies offer a variety of programs to assist students including the Kentucky Works (JOBS), Temporary Assistance for Needy Families (TANF), Workforce Investment Act (WIA), and AmeriCorps.

Tax Credits

The U.S. Government grants a tax credit for eligible persons and/or their dependent attending college filing a federal tax return. The tax credits are referred to as the HOPE Tax Credit and the Lifetime Learning Tax Credit. Please contact your personal tax advisor regarding your eligibility.

Satisfactory Academic Progress (SAP)

Federal regulations mandate that a student receiving Federal Student Aid under Title IV programs must maintain satisfactory academic progress in his/her course of study regardless of whether or not student aid is awarded each semester. Satisfactory Academic Progress (SAP) is measured with the following standards: Qualitative (cumulative Grade Point Average of 2.0), Quantitative (Pace progression – students must successfully complete at least 67% of the attempted coursework), and Maximum Time Frame (equals 150% of the credits for program completion).

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. Information on the appeal process can be found on the home college’s website or students can inquire at the local Financial Aid Office.

Implications of Suspension for Financial Aid

- Students who do not wish to appeal or their appeal is denied may take coursework at their own expense in order to meet improve deficiencies (GPA or Pace Progression) and regain financial aid eligibility.
- If a student is on Academic Probation or Academic Suspension, he/she will automatically be on Financial Aid Probation or Financial Aid Suspension.
- If an Academic Suspension is removed by appeal or any means, it does not mean that the financial aid suspension is automatically removed. The student must appeal his/her Financial Aid status separately to be considered for reinstatement financial aid eligibility.

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

Personal Financial Liability - Withdrawing or All ‘E’s

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

Student and Academic Services

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

Counseling

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

Placement

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

Testing

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

Students with Disabilities

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

Information Technology

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

Learning Laboratories

Learning laboratories help students improve their basic learning skills. Students experiencing difficulties in meeting entry-level requirements for areas such as reading, writing, and mathematics; students who want to improve their current academic performance; and students who want to review previously learned skills are among those who have found the services provided by learning laboratories to be helpful. Learning laboratories may use a variety of techniques and materials to assist students such as: tutoring services, group work, and individualized instruction. Tests may be given to determine when students have reached a particular level of achievement. Materials include videos, individualized learning packets, programmed texts, sound pages, and computer-driven learning modules.

Libraries

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

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

The KCTCS Library Catalog (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.
Kentucky Skills U (Formerly KY Adult Education Services)

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

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

KCTCS Colleges serve as the adult education service providers in many Kentucky counties. https://gedplusky.org

Policies and Procedures

Right to Know

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

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

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

Student Rights and Responsibilities

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

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

Drug-Free Policy

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

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

Sexual Harassment

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

Pregnancy Related Accommodations

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

Grievance Procedures

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

Student Organizations

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

National Vocational Technical Honor Society

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

Phit 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
- enrollment status (part-time or full-time)
- degrees and awards received

- the most recent previous educational agency or institution attended by the student
- participation in officially recognized activities and sports

Privacy and Release of Student Records

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

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

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

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

In general, the records maintained by the college are available only to the student, to college personnel with legitimate educational interests, a person or company with whom the College has contracted as its agent to provide a service, to other institutions where the student is seeking financial aid, and to authorized representatives of the Comptroller General of the U.S., the Secretary of the U.S. Department of Education, or an administrative head of an education agency, in connection with an audit or evaluation of federally supported programs, and as provided by Section 164. 283 of the Kentucky Revised Statutes. However, information may be released by the institution to appropriate persons in connection with an emergency if the knowledge of such information is necessary to protect the health or safety of a student or other persons. Records may be disclosed without consent to officials of another school in which a student seeks or intends to enroll.
Records may also be furnished in compliance with a judicial order or pursuant to a subpoena or with the consent of the student.

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

**Appeal**

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

Requests for hearings should be sent to the Records Custodian, Kentucky Community and Technical College System, 300 N Main St, Versailles, KY, 40383 and will be addressed in a timely manner.
Introduction
KCTCS colleges offer the Associate in Arts (AA), the Associate in Science (AS), and the Associate in Fine Arts (AFA) degree programs which allow students to tailor and complete a general course of study to meet their interests and to fulfill the general education requirements of the first two years of bachelor degree programs; Associate in Applied Science (AAS) occupational/technical degree programs to meet workforce needs and which may be transferable to a bachelor degree; occupational/technical diplomas and certificates that are also aligned with workforce needs; dual credit courses for high school students; and continuing education and community service opportunities.

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

Academic Advising
Academic advising is an essential element of the total educational experience and is available to every KCTCS student. Whether a student is seeking credentials exclusively from KCTCS or plans to use the education obtained at KCTCS to pursue a higher degree at another institution, academic advising is critical. Advisors strive to assist students in obtaining accurate information about academic requirements, long- and short-term educational planning, and resources available to assist students in advancing their academic and professional goals. Students with specific plans should contact an advisor at the local KCTCS college as soon as these goals are identified for the most effective advising and planning. In order to receive academic advising students should consult the local KCTCS college for information. Students can also refer to KCTCS website at: kctcs.edu Search words: Transfer Contacts to assist with transfer planning at KCTCS and a four-year university.

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

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

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

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

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

Transfer to Baccalaureate Institutions

Transfer to Baccalaureate Institutions
Transfer is the procedure by which credit hours students earn at one institution are applied toward a degree at another institution. The Associate in Arts and the Associate in Science degrees at KCTCS are transfer degrees, made up of 60 credit hours of general education course work and electives that can make up the first two years of a bachelor’s degree. All students are encouraged to complete an associate degree at KCTCS prior to transferring to a four-year institution. Student who transfer before earning a degree are encouraged to become General Education Certified first. KCTCS has developed several pathways and transfer agreements to assist students in completing an associate degree and then seamlessly transfer to a bachelor’s degree program at a four-year institution, both in and out of state. Those agreements are available at the Transfer Guide Section on the KCTCS Transfer Web Page: kctcs.edu/education-training/transfer/index.aspx

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

KCTCS contacts are available in the Contact Section of the KCTCS Transfer Web Page: kctcs.edu/education-training/transfer/index.aspx

Credit for External Experiences and Prior Learning
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 variety of mechanisms described in this section.
1. Advanced Placement (AP) 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. Students are responsible for providing a transcript of AP credits earned.

2. 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.

3. 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. Students are responsible for providing a transcript of CLEP credits earned.

4. 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 (ACE).

5. Special Exam: STEP (Special Technical Education Proficiency) or Challenge
Institutionally developed and administered exams provide an opportunity to demonstrate mastery of course content and receive credit toward program requirements. The student must be accepted for admission and enrolled in the college and apply for the exam through the Student Records Office. For more information, see “Tuition and Charges.” A STEP test is a method for students to earn credit in technical courses by assessing learning acquired through non-college experiences. Challenge exams provide students the opportunity to test out of courses that are not required for the program but are pre-requisites for the higher level required program courses.

6. Portfolio - Prior Learning Assessment (PLA)
Prior Learning Assessment Portfolio students may contact any KCTCS college for information regarding applications for college credit via portfolio. For more information, see “Tuition and Charges.”

7. 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.

Standards for Awarding Credit for Prior Learning
KCTCS Colleges utilize 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. KCTCS Colleges utilize best practices and standards provided through the Council on Adult and Experiential Learning (CAEL) when awarding credit for prior learning.
<table>
<thead>
<tr>
<th>Course</th>
<th>AP Score</th>
<th>Credit Awarded</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP Research Capstone</td>
<td>3-5</td>
<td>Elective Credit</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>AP Seminar Capstone</td>
<td>3-5</td>
<td>Elective Credit</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Art History</td>
<td>3</td>
<td>ART 105 or ART 106</td>
<td>3 credit hours</td>
</tr>
<tr>
<td></td>
<td>4-5</td>
<td>ART 105 and ART 106</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>Biology</td>
<td>3</td>
<td>BIO 112</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Calculus AB</td>
<td>3</td>
<td>MAT 175</td>
<td>5 credit hours</td>
</tr>
<tr>
<td>Calculus BC</td>
<td>3</td>
<td>MAT 175 and MAT 185</td>
<td>10 credit hours</td>
</tr>
<tr>
<td>Chemistry</td>
<td>3</td>
<td>CHE 170</td>
<td>4 credit hours</td>
</tr>
<tr>
<td></td>
<td>4-5</td>
<td>CHE 170 &amp; CHE 180</td>
<td>8 credit hours</td>
</tr>
<tr>
<td>Chinese Language and Culture</td>
<td>3</td>
<td>RAE 150</td>
<td>4 credit hours</td>
</tr>
<tr>
<td></td>
<td>4-5</td>
<td>RAE 150 and RAE 151</td>
<td>8 credit hours</td>
</tr>
<tr>
<td>Comparative Government and Politics</td>
<td>3</td>
<td>POL 210</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Computer Science A</td>
<td>3</td>
<td>TRN 172</td>
<td>3 credit hours</td>
</tr>
<tr>
<td></td>
<td>4-5</td>
<td>CIT 149</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Computer Science Principles</td>
<td>3-5</td>
<td>Elective Credit</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>English Literature/Composition</td>
<td>3</td>
<td>ENG 161</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>English Language/Composition</td>
<td>3</td>
<td>ENG 101</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Environmental Science</td>
<td>3</td>
<td>EST 150</td>
<td>4 credit hours</td>
</tr>
<tr>
<td>European History</td>
<td>3</td>
<td>HIS 104 and HIS 105</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>French Language</td>
<td>3</td>
<td>FRE 201</td>
<td>3 credit hours</td>
</tr>
<tr>
<td></td>
<td>4-5</td>
<td>FRE 201 and FRE 202</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>German Language</td>
<td>3</td>
<td>GER 201</td>
<td>3 credit hours</td>
</tr>
<tr>
<td></td>
<td>4-5</td>
<td>GER 201 and GER 202</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>Human Geography</td>
<td>3</td>
<td>GEO 172</td>
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</tr>
<tr>
<td>Italian Language and Culture</td>
<td>3</td>
<td>TRN 106***</td>
<td>3 credit hours</td>
</tr>
<tr>
<td></td>
<td>4-5</td>
<td>TRN 106 and TRN 107***</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>Japanese Language and Culture</td>
<td>3</td>
<td>JPN 201</td>
<td>3 credit hours</td>
</tr>
<tr>
<td></td>
<td>4-5</td>
<td>JPN 201 and JPN 202</td>
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</tr>
<tr>
<td>Latin: Vergil</td>
<td>3</td>
<td>TRN 106***</td>
<td>3 credit hours</td>
</tr>
<tr>
<td></td>
<td>4-5</td>
<td>TRN 106 and 107***</td>
<td>6 credit hours</td>
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<tr>
<td>Microeconomics</td>
<td>3</td>
<td>ECO 201</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Macroeconomics</td>
<td>3</td>
<td>ECO 202</td>
<td>3 credit hours</td>
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<tr>
<td>Music Theory</td>
<td>3</td>
<td>MUS 174</td>
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<tr>
<td>Physics 1</td>
<td>3</td>
<td>PHY 201*</td>
<td>4 credit hours</td>
</tr>
<tr>
<td>Physics 2</td>
<td>3</td>
<td>PHY 203*</td>
<td>4 credit hours</td>
</tr>
<tr>
<td>Psychology</td>
<td>3</td>
<td>PSY 110</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Spanish Language</td>
<td>3</td>
<td>SPA 201</td>
<td>3 credit hours</td>
</tr>
<tr>
<td></td>
<td>4-5</td>
<td>SPA 201 and 202</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>Spanish Literature</td>
<td>3</td>
<td>TRN 110 (humanities)***</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Statistics</td>
<td>3</td>
<td>STA 220</td>
<td>3 credit hours</td>
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<tr>
<td>Studio Art 2-D</td>
<td>3</td>
<td>ART 112</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Studio Art 3-D</td>
<td>3</td>
<td>ART 113</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Studio Art – Drawing</td>
<td>3</td>
<td>ART 110</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>US Government &amp; Politics</td>
<td>3</td>
<td>POL 101</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>US History</td>
<td>3</td>
<td>HIS 108 and HIS 109</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>World History</td>
<td>3</td>
<td>HIS 101</td>
<td>3 credit hours</td>
</tr>
</tbody>
</table>

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

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

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

Articulation Agreements

Articulation agreements provide a mechanism to accept and award credit for courses that will transfer toward a credential. Articulation agreements specify the terms and conditions for courses taken at other institutions that will apply to a KCTCS credential, and/or the terms and conditions for courses taken at KCTCS that will apply to credentials or degree programs at other institutions. In either case, the award of applicable credit to the credential is subject to the specific terms of each agreement and all requirements specified in the agreement must be met before credit can be awarded. For information about articulation agreements for KCTCS credentials, contact the college Student Records Office.

College Level Examination Program (CLEP)

KCTCS colleges accept the General and Subject Examinations of the College Level Examination Program (CLEP). The Subject Examinations cover specific material which is common to courses in many colleges and universities. The level of proficiency to earn credit through CLEP is approximately equivalent to that required to earn a “C” in the course.

Guidelines for CLEP General Examinations

<table>
<thead>
<tr>
<th>CLEP Subject Examination</th>
<th>Scaled Score to Earn Credit</th>
<th>Equivalent Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>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>College Level French Language</td>
<td>70 or above</td>
<td>FRE 201, 202</td>
<td>6</td>
</tr>
<tr>
<td>College Level German Language</td>
<td>50-69</td>
<td>GER 201</td>
<td>3</td>
</tr>
<tr>
<td>College Level German Language</td>
<td>70 or above</td>
<td>GER 201, 202</td>
<td>6</td>
</tr>
<tr>
<td>College Level Spanish Language</td>
<td>50-69</td>
<td>SPA 201</td>
<td>3</td>
</tr>
<tr>
<td>College Level Spanish Language</td>
<td>70 or above</td>
<td>SPA 201, 202</td>
<td>6</td>
</tr>
<tr>
<td>History and Social Sciences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Government</td>
<td>50 or above</td>
<td>POL 101</td>
<td>3</td>
</tr>
<tr>
<td>History of the United States I</td>
<td>50 or above</td>
<td>HIS 108</td>
<td>3</td>
</tr>
<tr>
<td>History of the United States II</td>
<td>50 or above</td>
<td>HIS 109</td>
<td>3</td>
</tr>
<tr>
<td>Introductory Psychology</td>
<td>50 or above</td>
<td>PSY 110</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Macroeconomics</td>
<td>50 or above</td>
<td>ECO 202</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Microeconomics</td>
<td>50 or above</td>
<td>ECO 201</td>
<td>3</td>
</tr>
<tr>
<td>Introductory Sociology</td>
<td>50 or above</td>
<td>SOC 101</td>
<td>3</td>
</tr>
<tr>
<td>Western Civilization I: Ancient Near East to 1648</td>
<td>50 or above</td>
<td>HIS 104</td>
<td>3</td>
</tr>
<tr>
<td>Western Civilization II: 1648 to the Present</td>
<td>50 or above</td>
<td>HIS 105</td>
<td>3</td>
</tr>
<tr>
<td>Social Sciences and History</td>
<td>50 or above</td>
<td>SOC 101</td>
<td>3</td>
</tr>
<tr>
<td>Human Growth and Developmental</td>
<td>50 or above</td>
<td>AHS 100</td>
<td>2</td>
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<tr>
<td>Science and Mathematics</td>
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<tr>
<td>Calculus</td>
<td>50 or above</td>
<td>MAT 174 or MAT 175</td>
<td>4, 5</td>
</tr>
<tr>
<td>College Mathematics</td>
<td>50 or above</td>
<td>MAT 146</td>
<td>3</td>
</tr>
<tr>
<td>College Algebra</td>
<td>50 or above</td>
<td>MAT 150</td>
<td>3</td>
</tr>
<tr>
<td>Pre-calculus</td>
<td>50 or above</td>
<td>MAT 160</td>
<td>5</td>
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<tr>
<td>Biology</td>
<td>50-59</td>
<td>BIO 112</td>
<td>3</td>
</tr>
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<td>Biology</td>
<td>60-64</td>
<td>BIO 120, BIO 112</td>
<td>6</td>
</tr>
<tr>
<td>Biology</td>
<td>65-80</td>
<td>BIO 150, 152</td>
<td>6</td>
</tr>
<tr>
<td>General Chemistry</td>
<td>50 or above</td>
<td>CHE 170, 180</td>
<td>8</td>
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<tr>
<td>Natural Science</td>
<td>50 or above</td>
<td>BIO 112</td>
<td>3</td>
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<tr>
<td>Business and Computer Applications</td>
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<tr>
<td>Financial Accounting</td>
<td>50 or above</td>
<td>ACC 201</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Management</td>
<td>50 or above</td>
<td>BAS 283</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Marketing</td>
<td>50 or above</td>
<td>BAS 282</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Business Law</td>
<td>50 or above</td>
<td>BAS 267</td>
<td>3</td>
</tr>
<tr>
<td>Information Systems</td>
<td>50 or above</td>
<td>TRN 146</td>
<td>3</td>
</tr>
<tr>
<td>CLEP Subject Examination</td>
<td>Scaled Score to Earn Credit</td>
<td>Equivalent Course</td>
<td>Credit Hours</td>
</tr>
<tr>
<td>------------------------------------------------------</td>
<td>----------------------------</td>
<td>-------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>English and Humanities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Literature</td>
<td>50 or above</td>
<td>ENG 251</td>
<td>3</td>
</tr>
<tr>
<td>Analyzing and Interpreting Literature</td>
<td>50 or above</td>
<td>ENG 161</td>
<td>3</td>
</tr>
<tr>
<td>English Literature</td>
<td>50 or above</td>
<td>ENG 161</td>
<td>3</td>
</tr>
<tr>
<td>Humanities</td>
<td>50 or above</td>
<td>HUM 120</td>
<td>3</td>
</tr>
<tr>
<td>College Composition, College Composition Modular</td>
<td>50 or above</td>
<td>ENG 101</td>
<td>3</td>
</tr>
</tbody>
</table>

Guidelines for International Baccalaureate (IB)

<table>
<thead>
<tr>
<th>IB Course</th>
<th>Score</th>
<th>Credit Awarded</th>
<th>Credit Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology HL</td>
<td>4</td>
<td>BIO 152</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Biology SL</td>
<td>4</td>
<td>BIO 112</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Chemistry HL</td>
<td>4</td>
<td>CHE 170, CHE 180</td>
<td>8 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>
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</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.

Special Exam: STEP or Challenge

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

Non-Classroom Learning Experiences

Work Based Learning Experiences

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

Service Learning

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

Credit for Prior Learning

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

Policies Related to Enrollment

Student Load – Full-time Status

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

Student Load – Maximum Student Load

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

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

Normally, the maximum course load (including residence, correspondence, and extension courses) shall be four credit hours for the four-week intersession, six hours for the five-week session, seven credit hours in a six-week session, or 10 credit hours in the eight-week summer session. A student who has attained a grade point average of 3.0 may be granted permission by the college president (or designee) to carry a maximum of five hours in a four-week session, seven hours in the 5-week session, eight hours in a six-week session, 12 hours in an eight-week session, and fifteen hours in the twelve-week session.

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

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

Grading System

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

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

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

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

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

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

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

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

I: means that part of the work of the course remains unfinished. It shall be given only when there is a reasonable possibility that a passing grade will result from completion of the work. The instructor and student will discuss the requirements for completion of course with the time limit for completion not to exceed a maximum of one year; failure to do so will result in an automatic change of grade from I to 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.

IP: In Progress represents enrollment in a course for which there is no expectation the work will be completed during the assigned term. (i.e. a course whose end dates exceed the end date of the standard term). The notation will be assigned at the end of the enrollment term to indicate the course work continues and will be completed in the next term. Students will only be enrolled in one (1) term even if the course continues beyond the term. When final grades are reported the IP notation will be replaced with the final grade.

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

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

Academic Suspension (Dismissal): If a student is placed on academic probation for two consecutive terms (which is noted on the transcript as "subject to dismissal" the second time) and does not earn either a cumulative GPA or a term GPA of at least a 2.0 in the third term, the student shall be academically suspended. Non-enrollment has no effect on probation status. The president (or designee) may grant an exception based upon an individual’s case. A student on academic suspension may not enroll in courses which count toward a KCTCS degree.

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

Repeating a Course

A student may repeat a course for the purpose of improving a grade. The course must be repeated with the same grade option as the original enrollment in the course. The highest grade earned in a completed course shall constitute the official grade for the course and will be the only grade included within the cumulative GPA. Credit shall count only once for a KCTCS credential. If a student has 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.).

Final Exams

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

Dean’s List

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

Academic Bankruptcy (Readmission after Two or More Years)

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

Graduation Requirements

For all KCTCS degrees (the Associate in Arts, Associate in Science, Associate in Fine Arts, and Associate in Applied Science degrees) diplomas, and certificates, students must complete at least 25 percent of the approved curriculum credits at the KCTCS college granting the credential, regardless of the time the student has attended the college. Students must complete the college’s application for graduation within the posted deadline for the term.

Additional Requirements

Associate in Arts, Associate in Science, Associate in Fine Arts, and Associate in Applied Science degrees: students must satisfactorily complete 60 credits, including the general education requirements as specified in the KCTCS Board of Regents Policies 4.11 and 4.12 and program requirements, with a cumulative grade point average of at least 2.0. Diplomas: students must satisfactorily complete a minimum of 36 hours including the general education requirements as specified by the KCTCS Board of Regents Policies 4.11 and 4.12 and program requirements, with a cumulative grade point average of at least 2.0. Certificates: students must satisfactorily complete an approved curriculum with a grade point average of at least 2.0 in the courses required for the certificate.

Course substitutions may be made by the college president (or designee) on an individual basis with the advice of the appropriate division chairperson.

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

Graduation With Honors

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

Multiple Associate Degrees

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

Academic Credentials Awarded

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

General Education

<table>
<thead>
<tr>
<th>Core Requirements</th>
<th>AA</th>
<th>AS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written Communications</td>
<td>6 credit hours</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>Oral Communications</td>
<td>3 credit hours</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Arts and Humanities</td>
<td>6 credit hours</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>Quantitative Reasoning</td>
<td>3 credit hours</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>3 credit hours</td>
<td>6 credit hours</td>
</tr>
</tbody>
</table>

One science course must include a laboratory experience.

Social and Behavioral Sciences | 9 credit hours | 6 credit hours

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

Quantitative Reasoning OR

Natural Sciences | 3 credit hours

Subtotal General Education Core | 33 credit hours | 33 credit hours

Associate in Arts Requirements | 6 credit hours

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

Associate in Science Requirements | 6 credit hours

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

Electives | 21 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 a minimum of 60 credit hours, 2) minimum cumulative 2.0 GPA, 3) minimum of 15 credit hours earned at the institution awarding the degree, 4) cultural studies course, 5) demonstration of digital literacy, and 6) completion of a college success course or equivalent.

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

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

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

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

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

**General Education Component:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written and Oral Communications</td>
<td>9</td>
</tr>
<tr>
<td>Arts and Humanities</td>
<td>3</td>
</tr>
<tr>
<td>Quantitative Reasoning</td>
<td>3</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td>6</td>
</tr>
</tbody>
</table>

*Students who complete ENG 105 must take an additional 3 credit hours of General Education from any of the General Education categories to fulfill the remaining hours in the Written Communication portion of this requirement.*

**Fine Arts Core**

<table>
<thead>
<tr>
<th>Component</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-Total</td>
<td>18</td>
</tr>
</tbody>
</table>

**Concentration**

<table>
<thead>
<tr>
<th>Component</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-Total</td>
<td>18</td>
</tr>
</tbody>
</table>

**Total**

<table>
<thead>
<tr>
<th>Component</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education</td>
<td>24</td>
</tr>
<tr>
<td>Fine Arts Core</td>
<td>18</td>
</tr>
<tr>
<td>Concentration</td>
<td>18</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
</tr>
</tbody>
</table>

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.

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

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

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

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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:

<table>
<thead>
<tr>
<th>Component</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantitative Reasoning</td>
<td>3</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Heritage/Humanities</td>
<td>3</td>
</tr>
<tr>
<td>Written Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

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

**Technical and Support Component** 45 - 53

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

**Total Credit Hours** 60 - 68

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

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

Transitional courses (courses numbered 001-099) cannot be used to satisfy graduation requirements.
Diploma
A diploma program is designed to prepare students for technical employment within a one- to two-year period (36-60 credit hours). The total number of credit hours for the diploma must not exceed those required for a degree in the same program of study. A prescribed program of technical and general education courses is designed to prepare students for a specific job title. Diploma programs provide preparation for a specific occupation, credit toward an associate degree, and continued training opportunities for certificate program graduates. The diploma program contains general education courses emphasizing the skills identified in the SCANS (Secretary’s Commission on Achieving Necessary Skills) report that are critical to entry-level workforce success for persons prepared at the diploma level.

1. Diplomas will address appropriate general education competencies.
2. Diploma curricula will be approved through the KCTCS Curriculum process.
3. Diplomas will be applicable toward at least one associate degree. (Courses designated “Diploma Only” on the General Education list will not apply toward an Associate Degree)
4. General education 6 credit hour requirement for diplomas in areas 1-2 as follows:
   - Area 1: Written/Oral Communications, Humanities, or Heritage 3 credit hours
   - Area 2: Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning 3 credit hours
   Additional courses could be used for other areas in approved curricula for diplomas but may not meet general education transfer requirements.
   The above are minimum general education requirements; additional hours may be required in specific program curricula.

**Technical & Support***

**Total Credit Hours**

<table>
<thead>
<tr>
<th>30 – 54</th>
</tr>
</thead>
<tbody>
<tr>
<td>36 – 60</td>
</tr>
</tbody>
</table>

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

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

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

Certificate

The primary purpose and features of certificate programs of study are to provide marketable, entry-level skills. Certificates qualify students to take external licensure, vendor-based, or skill standards examinations in the field. If standardized external exams are not available in the field of study, certificates prepare students at skill levels expected of employees in an occupation found in the local economy.

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

Certificates will be applicable toward at least one associate degree.

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

Requirements for a certificate are applicable to the requirements of a diploma or associate degree in the same or a related field of study. Requests for exceptions must include appropriate documentation to justify approval. Certificates may contain general education courses emphasizing the skills identified in the Secretary’s Commission on Achieving 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 must be earned at the institution awarding the certificate.

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

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

Customized Industry Training

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

Fire/Rescue Training

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

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

Fire Rescue Training for Business, Industry and Municipal Government

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

Emergency Medical Technician Certificate

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

For specific program information see page 155.

State Fire Rescue Training Coordinators and Contact Information

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

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

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

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
(888) 234-3961
duane.suttles@kctcs.edu
Counties: Bath, Bracken, Elliott, Fleming, Lewis, Mason, Menifee, Montgomery, Morgan, Robertson, Rowan

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

Big Sandy Community & Technical College (Area 11)
Greg Gray, Coordinator
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 42626
(606) 219-2243
josh.whitis@kctcs.edu
Counties: Adair, Casey, Clinton, Cumberland, Green, McCreary, Pulaski, Russell, Taylor, Wayne

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

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

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

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

General Education Competencies:

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

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

B. Intellectual and practical skills, including
   • inquiry and analysis
   • critical and creative thinking
   • written and oral communication
   • quantitative literacy
   • information literacy
   • teamwork and problem solving

C. Personal and social responsibility, including
   • civic knowledge and engagement (local and global)
   • intercultural knowledge and competence
   • ethical reasoning and action
   • foundations and skills for lifelong learning

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

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

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

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

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

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

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

**Diploma**

- **MAT 165 Finite Mathematics and its Applications**
- **MAT 170 Brief Calculus with Applications**
- **MAT 171 Precalculus**
- **MAT 174 Calculus I**
- **MAT 175 Calculus I**
- **MAT 184 Calculus II**
- **MAT 185 Calculus II**
- **MAT 206 Mathematics for Elementary and Middle School Teachers II**
- **MAT 261 Introduction to Number Theory**
- **MAT 275 Calculus III**
- **MAT 285 Differential Equations**
- **PHI 250 Symbolic Logic**
- **STA 151 Introduction to Applied Statistics**
- **STA 210 Statistics: A Force in Human Judgment**
- **STA 220 Statistics**
- **STA 251 Applied Statistics**
- **Any Science course approved for the AAS, AA, AS, or AFA**

**AAS, AA, AFA, AS**

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

### Social and Behavioral Sciences

**Diploma**

- **EFM 100 Personal Financial Management**
- **WPP 200 Workplace Principles**
- **Any Social Interaction course approved for the AAS, AA, AS, or AFA**

**AAS, AA, AFA, AS**

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*AAS, AA, AS, AFA*
### Arts and Humanities

**Heritage**
Diploma, AAS, AA, AFA

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**Humanities**
Diploma, AAS, AA, AFA

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### Other Degree and/or Credential Requirements

#### College Success Courses

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

- FYE 100 Strategies for College Success
- FYE 105 Achieving Academic Success

#### Cultural Studies Courses

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

#### Social and Behavioral Sciences

-ANT 130/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*
-HUM 230 Contemporary Japanese Literature and Culture in Translation
-HUM 250 Appalachian Literature Survey
-HUM 251 Contemporary Appalachian Literature
-MUS 101 Folk and Traditional Music of the Western Continents
-MUS 102 World Music
-REL 101 Introduction to Religion
-REL 130/ANT 130 Introduction to Comparative Religion*
-REL 150 Comparative Ethics of Major World Religions
-REL 201 Introduction to the Old Testament
-THA 101 Introduction to Theatre: Principles and Practices

#### Foreign Languages

-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 II*
-HUM 204 Appalachian Seminar*
-HUM 230 Contemporary Japanese Literature and Culture in Translation
-HUM 250 Appalachian Literature Survey
-HUM 251 Contemporary Appalachian Literature
-MUS 101 Folk and Traditional Music of the Western Continents
-MUS 102 World Music
-REL 101 Introduction to Religion
-REL 130/ANT 130 Introduction to Comparative Religion*
-REL 150 Comparative Ethics of Major World Religions
-REL 160 Religious Expressions of Forgiveness and Justice
-WGS 201 Introduction to Women’s and Gender Studies in the Arts and Humanities

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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 requirement, but may not be used to fulfill both general education categories.

---

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

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

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

1. Passing the IC3 Global Standard Fast Track exam (using the most current Global Standard available), or
2. Achieving the IC3 Certification, or
3. Articulating credit from another institution which has demonstrated compliance with the above course criteria as identified by the registrar of the receiving college in cooperation with the digital literacy faculty of the receiving college, or
4. Receiving credit for an approved KCTCS digital literacy course, or
5. Completing a KCTCS program that has been given Digital Literacy status for the program, or
6. Providing documentation of successful completion of other certification exams as approved by KCTCS.

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

Approved KCTCS Digital Literacy courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD 100</td>
<td>Introduction to Computer Aided Design</td>
<td>3</td>
</tr>
<tr>
<td>CIT 105</td>
<td>Introduction to Computing</td>
<td>3</td>
</tr>
<tr>
<td>DLC 101</td>
<td>Digital Literacy</td>
<td>3</td>
</tr>
<tr>
<td>DPT 100</td>
<td>Introduction to 3D Printing Technology</td>
<td>3</td>
</tr>
<tr>
<td>DMI 228</td>
<td>Seminars in Radiography</td>
<td>3</td>
</tr>
<tr>
<td>DMS 119</td>
<td>Ultrasonic Physics and Instrumentation</td>
<td>6</td>
</tr>
<tr>
<td>EDU 204</td>
<td>Technology in the Classroom</td>
<td>3</td>
</tr>
<tr>
<td>IMD 100</td>
<td>Digital Information &amp; Communication Technologies</td>
<td>3</td>
</tr>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>VCC 125</td>
<td>Computer Graphics I</td>
<td>3</td>
</tr>
<tr>
<td>VCC 150</td>
<td>Mac Basics</td>
<td>3</td>
</tr>
</tbody>
</table>

Approved KCTCS programs with Digital Literacy status

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

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

- Nursing Associate Degree Program – Standard Pathway and Modular Pathway
- Nursing – Academic/Career Mobility AAS Program
- Nursing – Integrated Nursing AAS and Integrated LPN Diploma Program
- Nursing – Practical Nursing Diploma, all Pathways

Course Transitions

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

Employment and Earnings Information

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

Admission to Selective 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.
Kentucky Community and Technical College System’s (KCTCS) sixteen colleges deliver quality online courses and programs through two ways to learn: Learn by Term and Learn on Demand.

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

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

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

Online Programs

KCTCS Online Learn by Term – Semester-based Online Programs

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

All of the courses required for online programs can be taken fully online; however, some courses may require the student to take proctored exams in order to successfully complete the course. Instructors communicate with students through the Blackboard Learning Management System (LMS) or through KCTCS e-mail.

Students may register for KCTCS Online Learn by Term online classes offered system-wide directly at any KCTCS college.

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

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

KCTCS Online Learn on Demand Programs

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

To review a current list of Learn on Demand online programs, visit the KCTCS Online Learn on Demand web page https://kctcs.edu/education-training/kctcs-online/learn-on-demand/.
This section of the KCTCS catalog provides an overview of all the degree, diploma, and certificate programs offered by the KCTCS Colleges, in alphabetical order by name of the overarching program. Each KCTCS College is independently accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) and decisions on program and course offerings occur at the College. Under the title of each credential, in rounded brackets, is a list of KCTCS Colleges that offer the credential. The acronyms for the Colleges are listed below. Questions regarding the current college program inventory should be directed to the Student Records Office at each KCTCS College.

### KCTCS College Codes

- **ASC** Ashland Community and Technical College
- **BSC** Big Sandy Community and Technical College
- **BLC** Bluegrass Community and Technical College
- **ELC** Elizabethtown Community and Technical College
- **GTW** Gateway Community and Technical College
- **HZC** 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
- **SMC** Somerset Community College
- **SKY** Southcentral Kentucky Community and Technical College
- **SEC** Southeast Kentucky Community and Technical College
- **WKC** West Kentucky Community and Technical College

### Associate in Arts

An Associate in Arts (AA) degree provides a foundation in liberal arts and is designed for transfer into a Baccalaureate of Arts degree at a four-year institution. It consists of a general education core requirement of 33 credit hours and additional degree requirements of 6 credit hours and 21 credit hours of electives for a total of 60 credit hours. Students should fulfill elective hours with associate degree requirements and coursework appropriate for their transfer majors.

#### Associate in Arts – 2401015000

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

### General Education Core Requirements:

- **Written Communications** .................................................. 6
- **Oral Communications** ..................................................... 3
- **Arts and Humanities: Heritage** ........................................ 3
- **Arts and Humanities: Humanities** .................................. 3
- **Quantitative Reasoning** ................................................... 3
- **Natural Sciences** ............................................................ 3
  
  (Natural Science course must include a laboratory experience.)
- **Social/Behavioral Sciences** ............................................. 9
  
  (Two disciplines must be represented and different from those in the Arts and Humanities category.)
- **Quantitative Reasoning OR Natural Sciences** .................. 3

**Subtotal** 33

*Note: Students who complete ENG 105 as a Written Communication requirement must also take an additional 3 credit hours of General Education from any of the General Education categories found on pages 67-71.

### Associate in Arts Additional Requirements:

Students are advised to choose hours to satisfy pre-major requirements at the institution to which they are transferring. These courses must be different courses than that in the General Education Core section.

**Complete two courses from the areas listed below:**

- Arts and Humanities OR Social/Behavioral Sciences OR Foreign Languages ... 6

**Subtotal** 6

### Electives:

Students are advised to choose hours to satisfy pre-major requirements at the institution to which they are transferring. Any additional courses, Technical or General Education that were not used to fulfill the categories above can be used to satisfy this category.

- **Digital Literacy Requirement** ........................................... 0-3
- **College Success Course or Equivalent** ............................. 0-3
- **Associate in Arts Electives** ............................................. 15-21

**Subtotal** 21

**Total Degree Hours** 60

**Must be demonstrated either by competency exam or by completing an approved digital literacy course listed on pg. 71.

A course carrying the Cultural Studies status must also be completed as part of the AA requirements. Approved Cultural Studies courses are listed on pages 67-71.
Associate in Science

An Associate in Science (AS) degree is designed to transfer into a Baccalaureate of Science degree at a four-year institution. It consists of a general education core requirement of 33 credit hours and additional degree requirements of 6 credit hours and 21 credit hours of electives for 60 credit hours. Students should fulfill elective hours with associate degree requirements and coursework appropriate for their transfer majors.

**Associate in Science – 2401016000**

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

**General Education Core Requirements:**

Note: Courses chosen to satisfy General Education requirements must be selected from the approved General Education list which is available in the KCTCS catalog on pages 67-71. A course used to fulfill one category cannot be used to fulfill another category.

- Written Communications* ....................................................... 6
- Oral Communications ................................................................. 3
- Arts and Humanities: Heritage ................................................... 3
- Arts and Humanities: Humanities .............................................. 3
- Quantitative Reasoning ............................................................. 6
- Natural Sciences ....................................................................... 6
- Social/Behavioral Sciences ........................................................ 6
- (Two disciplines must be represented and different from those in the Arts and Humanities category.)

*Note: Students who complete ENG 105 as a Written Communication requirement must also take an additional 3 credit hours of General Education from any of the General Education categories found on pages 67-71.

**Associate in Science Additional Requirements:**

Students are advised to choose hours to satisfy pre-major requirements at the institution to which they are transferring. These courses must be different courses than that in the General Education Core section.

**Complete two courses from the areas listed below:**

- Quantitative Reasoning OR Natural Sciences ................................. 6

**Electives:**

Students are advised to choose hours to satisfy pre-major requirements at the institution to which they are transferring. Any additional courses, Technical or General Education that were not used to fulfill the categories above can be used to satisfy this category.

- Digital Literacy Requirement** .................................................... 0-3
- College Success Course or Equivalent ......................................... 0-3
- Associate in Science Electives .................................................... 15-21

*Note: Must be demonstrated either by competency exam or by completing an approved digital literacy course listed on pg. 71.

**Total Degree Hours** 60

A course carrying the Cultural Studies status must also be completed as part of the AS requirements. Approved Cultural Studies courses are listed on pages 67-71.

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

**Advanced Integrated Manufacturing**

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

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

**Certificate**

**Manufacturing Process Operations – 4805013019**

*(Offered at MDC)*

- 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
- CAD 100 Introduction to Computer Aided Design .......................... 3
- Technical Elective (Approved by Program Coordinator) ............... 3

**Total Credits** 18

**Plastics Processing – 4805013029**

*(Offered at MDC)*

- AIM 120 Introduction to Modern Plastics Manufacturing ............. 3
- AIT 200 Process Management and Quality Control ..................... 4

**Total Credits** 7

**Advanced Integrated Technology**

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

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

The Utility Technician certificate prepares students to be entry level groundman operators for the electric utility industry. From the groundman operator position, students progress to “lineman” after gaining on-the-job experience.

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

**Associate in Applied Science**

**Advanced Integrated Technology - 1504997019**

*(Offered at ASC, MDC)*

**Required General Education:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 126 Technical Algebra and Trigonometry OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 150 College Algebra OR</td>
<td>3</td>
</tr>
<tr>
<td>Higher MAT course OR</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 151 Introductory Physics I AND</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 161 Introductory Physics I Lab OR</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 171 Applied Physics</td>
<td>4</td>
</tr>
<tr>
<td>ENG 101 Writing I OR</td>
<td>3</td>
</tr>
<tr>
<td>ENG 105 Writing: An Accelerated Course</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Science course OR</td>
<td>3</td>
</tr>
<tr>
<td>Heritage/Humanities course (HIS 107 suggested)</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

**Technical Core:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIT 100 Power Generation &amp; Utilization</td>
<td>4</td>
</tr>
<tr>
<td>AIT 110 Power Distribution Systems</td>
<td>3</td>
</tr>
<tr>
<td>AIT 120 Equipment Installation</td>
<td>3</td>
</tr>
<tr>
<td>AIT 130 Measurement and Instrumentation</td>
<td>4</td>
</tr>
<tr>
<td>AIT 140 Industrial Controls I</td>
<td>4</td>
</tr>
<tr>
<td>AIT 150 Industrial Controls II</td>
<td>4</td>
</tr>
<tr>
<td>AIT 210 Equipment Maintenance</td>
<td>4</td>
</tr>
<tr>
<td>AIT 270 Introduction to Robotics and Programmable Logic Controllers</td>
<td>2</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>28</strong></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</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>ACR 100 Refrigeration Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>ACR 101 Refrigeration Fundamentals Lab</td>
<td>2</td>
</tr>
<tr>
<td>ACR 102 HVAC Electricity</td>
<td>3</td>
</tr>
<tr>
<td>ACR 103 HVAC Electricity Lab</td>
<td>2</td>
</tr>
<tr>
<td>ACR 130 Electrical Components</td>
<td>3</td>
</tr>
<tr>
<td>ACR 131 Electrical Components Lab</td>
<td>2</td>
</tr>
<tr>
<td>IMT 100 Welding for Maintenance</td>
<td>3</td>
</tr>
<tr>
<td>IMT 101 Welding for Maintenance Lab</td>
<td>2</td>
</tr>
<tr>
<td>CMM 112 Fundamentals of Machine Tools B</td>
<td>3</td>
</tr>
<tr>
<td>AIT 135 Industrial Refrigeration I</td>
<td>3</td>
</tr>
<tr>
<td>AIT 160 Workplace Safety</td>
<td>1</td>
</tr>
<tr>
<td>AIT 200 Process Management and Quality Control</td>
<td>4</td>
</tr>
<tr>
<td>AIT 220 The Integrated Power Grid</td>
<td>3</td>
</tr>
<tr>
<td>AIT 230 Integrated Power Plant Operations</td>
<td>3</td>
</tr>
<tr>
<td>AIT 235 Industrial Refrigeration II</td>
<td>3</td>
</tr>
<tr>
<td>ELT 250 Programmable Logic Controllers</td>
<td>4</td>
</tr>
<tr>
<td>AET 250 PLC Networking</td>
<td>4</td>
</tr>
<tr>
<td>AIT 270 Advanced PLC Programming</td>
<td>4</td>
</tr>
<tr>
<td>AIT 290 Selected Topics in Advanced Integrated Technology</td>
<td>0.1-5.0</td>
</tr>
<tr>
<td>AIT 299 Advanced Electromechanical Concepts</td>
<td>4</td>
</tr>
<tr>
<td>AET 190 Industrial Computer Programming Concepts</td>
<td>4</td>
</tr>
<tr>
<td><strong>Approved Technical Courses</strong></td>
<td><strong>16</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>60</strong></td>
</tr>
</tbody>
</table>

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

**Certificates**

**Ammonia Refrigeration Fundamentals – 1504993160**

*(Offered at MDC, MYC)*

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

**Electrical Maintenance Technician – 1504993170**

*(Offered at ASC, MDC, MYC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIT 1001 Basic Electrical Knowledge</td>
<td>2</td>
</tr>
<tr>
<td>AIT 1002 Power Development</td>
<td>1</td>
</tr>
<tr>
<td>AIT 1101 Electrical Power Distribution</td>
<td>1</td>
</tr>
<tr>
<td>AIT 1201 Electrical Installation</td>
<td>1</td>
</tr>
<tr>
<td>AIT 1301 Temperature, Pressure, Flow Level</td>
<td>2</td>
</tr>
<tr>
<td>AIT 1302 Integrated Process Control</td>
<td>2</td>
</tr>
<tr>
<td>AIT 1401 Basic Electrical Controls</td>
<td>2</td>
</tr>
<tr>
<td>AIT 1501 Intermediate Electrical Controls</td>
<td>2</td>
</tr>
<tr>
<td>AIT 270 Introduction to Robotics and Programmable Logic Controllers</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

**Engineering Controls – 1504993120**

*(Offered at ASC, MDC)*

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

**Industrial Mechanic – 1504993180**

*(Offered at ASC, MDC, MYC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIT 1003 Hydraulic/Pneumatic Fundamentals</td>
<td>1</td>
</tr>
<tr>
<td>AIT 1102 Fluid Power Distribution</td>
<td>2</td>
</tr>
<tr>
<td>AIT 1202 Piping, Pneumatic, &amp; Installation</td>
<td>1</td>
</tr>
<tr>
<td>AIT 1203 Mechanical Installation</td>
<td>1</td>
</tr>
<tr>
<td>AIT 1402 Basic Pneumatic Controls</td>
<td>1</td>
</tr>
<tr>
<td>AIT 1403 Basic Hydraulic Controls</td>
<td>1</td>
</tr>
<tr>
<td>AIT 1502 Intermediate Pneumatic Controls</td>
<td>1</td>
</tr>
<tr>
<td>AIT 1503 Intermediate Hydraulic Controls</td>
<td>1</td>
</tr>
<tr>
<td>AIT 2101 Predictive/Preventative Maintenance and Lubrication</td>
<td>1</td>
</tr>
<tr>
<td>AIT 2102 Power Transmission Systems</td>
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<td>AIT 2103 Advanced Mechanical</td>
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**Industrial Refrigeration – 1504993140**

*(Offered at MDC, MYC, SMC)*

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<td>ACR 102 HVAC Electricity</td>
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<td>ACR 131 Electrical Components Lab</td>
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<td>AIT 235 Industrial Refrigeration II</td>
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## Multi-Skilled Maintenance Apprenticeship – 1504993150
*(Offered at ASC, MDC)*

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<td>Hydraulic/Pneumatic Fundamentals</td>
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<td>AIT 1101</td>
<td>Electrical Power Distribution</td>
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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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<td>Principles of Instrumentation</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>AIT 1402</td>
<td>Basic Pneumatic Controls</td>
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<td>Basic Hydraulic Controls</td>
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<td>Intermediate Electrical Controls</td>
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**Total Credits:** 28

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

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<td>IMT 100</td>
<td>Welding for Maintenance</td>
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<td>AIT 270</td>
<td>Introduction to Robotics and Programmable Logic</td>
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**Total Credits:** 19

## Skilled Operator - 1504993190
*(Offered at ASC, MDC, MYC)*

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<tr>
<td>AIT 110</td>
<td>Power Distribution Systems</td>
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<td>AIT 1203</td>
<td>Mechanical Installation</td>
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**Total Credits:** 8

## Utility Technician - 1504993210
*(Offered at ASC, HZC, MDC)*

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<td>Utility Technician II</td>
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**Total Credits:** 12

## 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 and African Studies. Additional courses in communication, humanities, and social sciences complete the program.

### Certificate

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

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<td>Writing I</td>
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<td>African American History I</td>
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<td>African American History II</td>
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<td>African American Music History</td>
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**Total Credits:** 18

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

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<td>Cultural Diversity in the United States</td>
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<td>Inequality in Society</td>
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<td>MUS 104</td>
<td>Introduction to Jazz</td>
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<td>HUM 150</td>
<td>Introduction to African Literature</td>
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<td>REL 101</td>
<td>Introduction to Religious Studies</td>
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<td>Introduction to Comparative Religion</td>
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<td>ART 104</td>
<td>Introduction to African Art</td>
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<td>Special Topics in Theatre</td>
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## Agriculture

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

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

## Associate in Applied Science

**Agriculture - 0103017039** *(Offered at ELC, HEC, HPC, MDC, OWC)*

### General Education:

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<td>Technical Algebra and Trigonometry OR</td>
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### Agriculture Business/Marketing Track – 010301705
*(Offered at HEC, HPC, MDC, OWC)*

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### Agriculture Education Track – 010301706
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### Agriculture Technology Track – 010301707
*(Offered at ELC, HEC, HPC, MDC, OWC)*

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### Agronomy Track – 010301708
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### Horticulture Track – 010301709
*(Offered at)*

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### Sustainable Agriculture Track – 010301710
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### Diploma

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

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### Agriculture Business/Marketing Track – 010301401
*(Offered at HEC, HPC)*

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### Agriculture Technology Track – 010301403

*(Offered at HEC, HPC, MDC)*

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<td>WLD 130</td>
<td>Gas Tungsten Arc-Welding AND</td>
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### Agronomy Track – 010301404

*(Offered at HEC, HPC)*

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### Horticulture Track – 010301405

*(Offered at)*

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<td>Herbaceous Plant Production</td>
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### Sustainable Agriculture Track – 010301407

*(Offered at HEC)*

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<td>AGR 260</td>
<td>Introduction to Sustainable Agriculture</td>
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<td>AGR 270</td>
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### Certificates

#### Agriculture Business/Marketing – 010301308

*(Offered at HEC, HPC, MDC)*

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<td>BAS 120</td>
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<td>AGR 175</td>
<td>Agriculture Marketing and Sales AND</td>
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<td>AGR 285</td>
<td>Farm Financial Management AND</td>
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<td>AGR 265</td>
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#### Agriculture Education – 010301309

*(Offered at ELC, HEC, HPC)*

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#### Agriculture Technology – 010301309

*(Offered at ELC, HEC, HPC, MDC)*

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<td>Welding for Maintenance Lab OR</td>
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<td>Gas Tungsten Arc-Welding AND</td>
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#### Agronomy – 010301309

*(Offered at HEC, HPC, MDC)*

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#### Horticulture – 010301309

*(Offered at HZC, MDC)*

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#### Sustainable Agriculture – 010301309

*(Offered at BSC, ELC, HEC, HZC, MDC)*

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<td>AGR 260</td>
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Air Conditioning Technology

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

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

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

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

Associate in Applied Science

Air Conditioning Technology - 4702017019
(Offered at BLC, BSC, ELC, GTW, MDC, OWC, SKY)

General Education:
Quantitative Reasoning ........................................ 3
Natural Sciences .................................................... 3
Social/Behavioral Sciences ..................................... 3
Heritage/Humanities ............................................. 3
Written Communication ....................................... 3
Subtotal Credits 15

Technical Courses:
ACR 100 Refrigeration Fundamentals ..................... 3
ACR 101 Refrigeration Fundamentals Lab .................. 2
ACR 102 HVAC Electricity AND ............................. 3
ACR 103 HVAC Electricity Lab OR ......................... 2
Comparable Electrical Course* ............................ (4-5)
Subtotal Credits 9-13

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

Air Conditioning Technology Track – 470201701
(Offered at BLC, BSC, ELC, GTW, MDC, OWC, SKY)

ACR 130 Electrical Components ............................ 3
ACR 131 Electrical Components Lab ....................... 2
ACR 170 Heat Load/Duct Design ............................ 3
ACR 250 Cooling and Dehumidification .................. 3
ACR 251 Cooling and Dehumidification Lab ............... 2
ACR 260 Heating and Humidification ....................... 3
ACR 262 Heating and Humidification Lab ................. 2
ACR 270 Heat Pump Application ............................ 3
ACR 271 Heat Pump Application Lab ....................... 2
ACR 290 Journeyman Preparation ........................... 3
Electives ** .................................................... 10-12
Subtotal Credits 36-38
Total Credits 60-66

Commercial Air Conditioning Technology Track – 470201702
(Offered at BLC, BSC, MDC, OWC)

EET 270 Electrical Motor Controls I ......................... 2
EET 271 Electrical Motor Controls I Lab ................... 2
ACR 206 Boilers ................................................... 5
ACR 207 Commercial HVAC Systems ...................... 5
ACR 208 Chillers .................................................. 5
ACR 209 Manual N Load Calculation and Design ........ 4
ACR 290 Journeyman Preparation ........................... 3
Technical Electives .......................................................... 10-12
Subtotal Credits 36-38
Total Credits 60-66

Commercial Systems and Building Controls Technology Track – 470201703
(Offered at BLC, BSC, OWC)

CTT 160 Intro to Networking ...................................... 4
EET 270 Electrical Motor Controls I ......................... 2
EET 271 Electrical Motor Controls I Lab ................... 2
EET 276 Programmable Logic Controllers ................. 2
EET 277 Programmable Logic Controllers Lab .......... 2
ACR 206 Boilers ................................................... 5
ACR 207 Commercial HVAC Systems ...................... 5
ACR 208 Chillers .................................................. 5
ACR 230 Building Controls I .................................... 5
ACR 232 Building Controls II ................................... 5
ACR 290 Journeyman Preparation ........................... 3
Subtotal Credits 40
Total Credits 64-68

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 = Written Communication, Oral Communications, OR
                  Humanities/Heritage ............................................ 3
Area 2 = Social/Behavioral Sciences, Natural Sciences OR
                  Quantitative Reasoning ......................................... 3
Subtotal Credits 6

Digital literacy course ............................................ 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 OR ......................... 3
ACR 250 Cooling and Dehumidification .................. 3
ACR 251 Cooling and Dehumidification Lab ............... 2
ACR 260 Heating and Humidification ....................... 3
ACR 262 Heating and Humidification Lab ................. 2
ACR 270 Heat Pump Application AND ..................... 3
ACR 271 Heat Pump Application Lab OR .................. 2
ACR 207 Commercial HVAC Systems ...................... (5)
ACR 291 Special Problems OR ................................. 1
ACR 298 Practicum ..................................................... 2
Electives** ............................................................. 9-12
Subtotal Credits 42-51
Total Credits 48-57

79
**Comparable Electrical Courses:**

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<td>EET 154</td>
<td>Electrical Construction I AND</td>
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<td>EET 155</td>
<td>Electrical Construction I Lab OR</td>
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<td>EET 112</td>
<td>Basic Electrical Theory: AND</td>
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<td>EET 113</td>
<td>Basic Electrical Theory Lab OR</td>
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<td>EET 254</td>
<td>Electrical Construction I AND</td>
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<td>ELT 110</td>
<td>Circuits I OR</td>
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<td>Industrial Maintenance Electrical Principles Lab</td>
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*OR Consent of the instructor*

**Certificates**

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

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<td>ACR 103</td>
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**Total Credits** 20

**Building Controls Technician – 4702013099**
*(Offered at BLC, BSC, ELC, MDC, OWC)*

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**Total Credits** 35

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

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<td>ACR 209</td>
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**Total Credits** 19

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

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<td>ACR 102</td>
<td>HVAC Electricity AND</td>
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<td>ACR 103</td>
<td>HVAC Electricity Lab</td>
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<tr>
<td>Comparable Electrical Course*</td>
<td>4-5</td>
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<td>ACR 130</td>
<td>Electrical Components</td>
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<td>ACR 131</td>
<td>Electrical Components Lab</td>
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<td>ACR 170</td>
<td>Heat Load/Duct Design</td>
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<td>ACR 250</td>
<td>Cooling and Dehumidification</td>
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<td>ACR 251</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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**Total Credits** 35-36

**Environmental Control System Servicer - 4702013039**
*(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)*

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**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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**Total Credits** 9-10

**Refrigeration Mechanic - 4702013059**
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**Total Credits** 27-28

**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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## 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)*

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### Creative Writing Track - 050122302

*(Offered at ASC, SEC)*

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<td>Beginning Workshop in Imaginative Writing OR</td>
<td>3</td>
</tr>
<tr>
<td>Elective approved by Appalachian Studies Committee or its designee</td>
<td>(3)</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>Creative Writing Track</strong></td>
<td><strong>12</strong></td>
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</table>

### Music Track - 050122303

*(Offered at ASC, SEC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLI 101</td>
<td>Folk and Traditional Music of the Western Continents</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>Music Track</strong></td>
<td><strong>12</strong></td>
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</tbody>
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### Science Track - 050122304

*(Offered at ASC, SEC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 120</td>
<td>Human Ecology OR</td>
<td>3</td>
</tr>
<tr>
<td>GLY 101</td>
<td>Physical Geology</td>
<td>3</td>
</tr>
<tr>
<td>GLY 111</td>
<td>Laboratory for Physical Geology</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>Science Track</strong></td>
<td><strong>16</strong></td>
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### Social Science Track - 050122305

*(Offered at ASC, SEC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWK 275</td>
<td>The Family OR</td>
<td>3</td>
</tr>
<tr>
<td>Elective approved by Appalachian Studies Committee or its designee</td>
<td>(3)</td>
<td></td>
</tr>
<tr>
<td>ANT 220</td>
<td>Intro to Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>Social Science Track</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

## Applied Engineering Technology

The Applied Engineering Technology curriculum (AET) introduces students to basic experimental engineering principles and concepts by applying contemporary skills and knowledge in a variety of employment positions based on industry needs. It provides students with a strong foundation of engineering practices to stimulate their interest by using a problem-solving approach in state-of-the-art laboratories.

### Certificate

**Alternative Energy – 1504993099**

*(Offered at BLC, BSC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AET 102</td>
<td>Introduction to Energy</td>
<td>4</td>
</tr>
<tr>
<td>AET 110</td>
<td>Introduction to Circuit Analysis OR</td>
<td>4</td>
</tr>
<tr>
<td>AET 114</td>
<td>Solar and Wind Energy Generation</td>
<td>4</td>
</tr>
<tr>
<td>MAT 126</td>
<td>Technical Algebra and Trigonometry OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra OR</td>
<td>3</td>
</tr>
<tr>
<td>Higher Level Mathematics Course</td>
<td>(3)</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>Alternative Energy</strong></td>
<td><strong>18-20</strong></td>
</tr>
</tbody>
</table>

## Applied Process Technologies

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

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

### Certificate

**Applied Process Technologies - 4103017029**

*(Offered at ASC, JFC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 126</td>
<td>Technical Algebra &amp; Trigonometry (Recommended) OR</td>
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<tr>
<td>MAT 116</td>
<td>Technical Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>CHE 130</td>
<td>Introductory General &amp; Biological Chemistry OR</td>
<td>4</td>
</tr>
<tr>
<td>CHE 140/145</td>
<td>Introduction to General Chemistry with Lab</td>
<td>(4)</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>ECO 101</td>
<td>Contemporary Behavioral Sciences OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>Applied Process Technologies</strong></td>
<td><strong>19</strong></td>
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</table>

## Associate in Applied Science

### Certificate

**Applied Process Technologies - 4103017029**

*(Offered at ASC, JFC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 126</td>
<td>Technical Algebra &amp; Trigonometry (Recommended) OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 116</td>
<td>Technical Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>CHE 130</td>
<td>Introductory General &amp; Biological Chemistry OR</td>
<td>4</td>
</tr>
<tr>
<td>CHE 140/145</td>
<td>Introduction to General Chemistry with Lab</td>
<td>(4)</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>ECO 101</td>
<td>Contemporary Behavioral Sciences OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>Associate in Applied Science</strong></td>
<td><strong>19</strong></td>
</tr>
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</table>
## Technical Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>EX 196</td>
<td>Experiential Education</td>
<td>(1-6)</td>
</tr>
<tr>
<td>COE 199</td>
<td>Co-op</td>
<td>(1-8)</td>
</tr>
<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

*Consent of instructor to bypass course prerequisite for APT 158 will always be granted for this certificate program.

## Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHS 175</td>
<td>Applied Physics</td>
<td>6</td>
</tr>
<tr>
<td>PHY 171</td>
<td>Applied Physics</td>
<td>(4)</td>
</tr>
<tr>
<td>SFA 101</td>
<td>OSHA, Health, and Environmental Safety</td>
<td>3</td>
</tr>
<tr>
<td>APT 102</td>
<td>Process Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>APT 104</td>
<td>Rotating &amp; Reciprocating Equipment</td>
<td>3</td>
</tr>
<tr>
<td>APT 106</td>
<td>Process Chemistry</td>
<td>2</td>
</tr>
<tr>
<td>APT 108</td>
<td>Stationary Equipment</td>
<td>2</td>
</tr>
<tr>
<td>APT 202</td>
<td>Federally Mandated Training</td>
<td>3</td>
</tr>
<tr>
<td>APT 204</td>
<td>Safety Skills Training</td>
<td>1</td>
</tr>
<tr>
<td>APT 251</td>
<td>Application of Process Operations OR</td>
<td>2</td>
</tr>
<tr>
<td>APT 291</td>
<td>Special Problems in APT</td>
<td>(2-3)</td>
</tr>
<tr>
<td>EES 101</td>
<td>Basic Electronics</td>
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**Subtotal** 29-32

## Chemical/Refinery Operator Track - 410301701

*(Offered at JFC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>APT 142</td>
<td>Instrumentation</td>
<td>4</td>
</tr>
<tr>
<td>APT 144</td>
<td>Process Operations</td>
<td>4</td>
</tr>
<tr>
<td>APT 146</td>
<td>Process Applications</td>
<td>2</td>
</tr>
<tr>
<td>APT 148</td>
<td>Process Operations Safety</td>
<td>2</td>
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</tbody>
</table>

**Subtotal** 12

**Total** 60-63

## Lineman Technology Track - 410301703

*(Offered at ASC, JFC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>APT 158</td>
<td>Lineman Technology I*</td>
<td>3</td>
</tr>
<tr>
<td>APT 159</td>
<td>Lineman Technology I Lab</td>
<td>4</td>
</tr>
<tr>
<td>EET 150</td>
<td>Transformers</td>
<td>2</td>
</tr>
<tr>
<td>EET 151</td>
<td>Transformer Lab</td>
<td>1</td>
</tr>
<tr>
<td>APT 258</td>
<td>Lineman Technology II</td>
<td>3</td>
</tr>
<tr>
<td>APT 259</td>
<td>Lineman Technology II Lab</td>
<td>4</td>
</tr>
</tbody>
</table>

**Subtotal** 17

**Total** 65-68

## Power Plant Operator Track - 410301702

*(Offered at ASC, JFC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>APT 142</td>
<td>Instrumentation</td>
<td>4</td>
</tr>
<tr>
<td>APT 154</td>
<td>Power Plant Practice</td>
<td>6</td>
</tr>
<tr>
<td>APT 156</td>
<td>Power Plant Protection</td>
<td>2</td>
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</table>

**Subtotal** 12

**Total** 60-63

## Electives

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

## Certificate

### Basic Lineman – 4103013059

*(Offered at ASC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>APT 158</td>
<td>Lineman Technology I*</td>
<td>3</td>
</tr>
<tr>
<td>APT 159</td>
<td>Lineman Technology I Lab</td>
<td>4</td>
</tr>
<tr>
<td>CPR 100</td>
<td>CPR for Healthcare Professionals</td>
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<tr>
<td>SFA 101</td>
<td>OSHA, Health and Environmental Safety</td>
<td>3</td>
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<tr>
<td>TRU 100</td>
<td>Truck Driving</td>
<td>6</td>
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</table>

**Total** 17

*Consent of instructor to bypass course prerequisite for APT 158 will always be granted for this certificate program.

### Chemical/Refinery Operator – 4103013039

*(Offered at JFC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>SFA 101</td>
<td>OSHA, Health and Environmental Safety</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>CHE 130</td>
<td>Introductory General &amp; Biological Chemistry OR</td>
<td>4</td>
</tr>
<tr>
<td>CHE 140/145</td>
<td>Introduction to General Chemistry with Lab</td>
<td>(4)</td>
</tr>
<tr>
<td>APT 102</td>
<td>Process Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>APT 104</td>
<td>Rotating &amp; Reciprocating Equipment</td>
<td>3</td>
</tr>
<tr>
<td>APT 108</td>
<td>Stationary Equipment</td>
<td>2</td>
</tr>
<tr>
<td>APT 142</td>
<td>Instrumentation</td>
<td>4</td>
</tr>
<tr>
<td>APT 144</td>
<td>Process Operations</td>
<td>4</td>
</tr>
<tr>
<td>APT 146</td>
<td>Process Applications</td>
<td>2</td>
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<tr>
<td>EES 101</td>
<td>Basic Electronics</td>
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**Total** 31

### Industrial Worker - 1507013019

*(Offered at ASC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>SFA 101</td>
<td>OSHA, Health, and Environmental Safety</td>
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**Total** 3

### Lineman – 4103013049

*(Offered at ASC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>APT 158</td>
<td>Lineman Technology I</td>
<td>3</td>
</tr>
<tr>
<td>APT 159</td>
<td>Lineman Technology I Lab</td>
<td>4</td>
</tr>
<tr>
<td>EET 150</td>
<td>Transformers</td>
<td>2</td>
</tr>
<tr>
<td>EET 151</td>
<td>Transformers Lab</td>
<td>1</td>
</tr>
<tr>
<td>APT 258</td>
<td>Lineman Technology II</td>
<td>3</td>
</tr>
<tr>
<td>APT 259</td>
<td>Lineman Technology II Lab</td>
<td>4</td>
</tr>
<tr>
<td>EES 101</td>
<td>Basic Electronics</td>
<td>2</td>
</tr>
<tr>
<td>TRU 100</td>
<td>Truck Driving</td>
<td>6</td>
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</table>

**Total** 25

### Power Plant Operator – 4103013029

*(Offered at JFC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFA 101</td>
<td>OSHA, Health and Environmental Safety</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>CHE 130</td>
<td>Introductory General &amp; Biological Chemistry OR</td>
<td>4</td>
</tr>
<tr>
<td>CHE 140/145</td>
<td>Introduction to General Chemistry with Lab</td>
<td>(4)</td>
</tr>
<tr>
<td>APT 102</td>
<td>Process Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>APT 104</td>
<td>Rotating &amp; Reciprocating Equipment</td>
<td>3</td>
</tr>
<tr>
<td>APT 108</td>
<td>Stationary Equipment</td>
<td>2</td>
</tr>
<tr>
<td>APT 142</td>
<td>Instrumentation</td>
<td>4</td>
</tr>
<tr>
<td>APT 144</td>
<td>Process Operations</td>
<td>4</td>
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<tr>
<td>APT 146</td>
<td>Process Applications</td>
<td>6</td>
</tr>
<tr>
<td>EES 101</td>
<td>Basic Electronics</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total** 33

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83
Apprenticeship Studies

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

Associate in Applied Science

Architectural Technology - 1513037019
(Offered at BLC)

Required:
- Quantitative Reasoning .................................................. 3
- Heritage/Humanities .................................................. 3
- Social/Behavioral Sciences .................................................. 3
- ENG 101 Writing I .................................................. 3
- Oral Communications .................................................. 3
- PHY 171 Applied Physics OR .................................................. 4

Other Natural Sciences course with consent of program coordinator .................................................. (3)

Coordinator .................................................. (3)

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

Subtotal .................................................. 42-45

Total Credits .................................................. 60-64

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 standards. Students are taught the types of materials used in filler and maintenance of a 2.0 cumulative grade point average. 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.

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

Subtotal .................................................. 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 Credits .................................................. 65-68

**Technical Courses

ACH 180 Selected Topics in Architectural Technology: (Topic) .................................................. 1-3
ACH 194 Visual Composition .................................................. 3
ACH 198 Practicums 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.

Diploma

Collision Repair Technician - 4706034019
(Offered at BSC, 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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CRT 100</td>
<td>Introduction to Collision Repair</td>
<td>2</td>
</tr>
<tr>
<td>CRT 130</td>
<td>Non-Structural Analysis and Damage Repair</td>
<td>6</td>
</tr>
<tr>
<td>CRT 131</td>
<td>Non-Structural Analysis and Damage Repair Lab</td>
<td>6</td>
</tr>
<tr>
<td>CRT 150</td>
<td>Painting and Refinishing</td>
<td>6</td>
</tr>
<tr>
<td>CRT 151</td>
<td>Painting and Refinishing Lab</td>
<td>6</td>
</tr>
<tr>
<td>CRT 230</td>
<td>Structural Analysis and Damage Repair</td>
<td>6</td>
</tr>
<tr>
<td>CRT 231</td>
<td>Structural Analysis and Damage Repair Lab</td>
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</tr>
<tr>
<td>CRT 250</td>
<td>Mechanical and Electrical Components</td>
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<tr>
<td>CRT 251</td>
<td>Mechanical and Electrical Components Lab</td>
<td>6</td>
</tr>
<tr>
<td>CRT 198</td>
<td>Practicum OR</td>
<td>1</td>
</tr>
<tr>
<td>CRT 199</td>
<td>Cooperative Education</td>
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Subtotal: 51-54

Total Credits: 57-60

Recommended Program Electives

<table>
<thead>
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<tbody>
<tr>
<td>CRT 130</td>
<td>Non-Structural Analysis and Damage Repair</td>
<td>6</td>
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<tr>
<td>CRT 151</td>
<td>Painting and Refinishing Lab</td>
<td>6</td>
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</table>

Total Credits: 38

Automotive Painter - 4706033119

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

Technical Courses:

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

Total Credits: 14

Collision Repairer – 4706033109

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

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

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<tr>
<td>ADX 150</td>
<td>Engine Repair</td>
<td>3</td>
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<td>ADX 170</td>
<td>Climate Control</td>
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<tr>
<td>AUIT 110</td>
<td>Brake Systems</td>
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<tr>
<td>AUIT 130</td>
<td>Manual Transmissions</td>
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<tr>
<td>AUIT 140</td>
<td>Basic Fuel and Ignition Systems</td>
<td>3</td>
</tr>
<tr>
<td>AUIT 142</td>
<td>Emission Systems</td>
<td>3</td>
</tr>
<tr>
<td>AUIT 160</td>
<td>Suspension and Steering</td>
<td>3</td>
</tr>
<tr>
<td>AUIT 180</td>
<td>Automatic Transmission/Transaxle</td>
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<tr>
<td>AUIT 240</td>
<td>Computer Control Systems and Diagnosis</td>
<td>3</td>
</tr>
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Total Technical core credits: 33-36
Automotive Parts/Service Writer Track - 470604702
(Offered at GTW, 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

Technical or Support Courses:
ADX 100 Industrial Safety .........................................................3
TQX 110 Total Quality Management ..........................................3
B& E 100 Introduction to Business and Economics ....................1
ACT 101 Fundamentals of Accounting I .....................................3
TEC 100 Communication for Business and Industry OR ..............3
CMS 152 Writing for Business and Industry ..............................3

Subtotal Credits: 13

Total Credits: 61-64

Automotive Technician Track - 470604701
(Offered at BLC, BSC, ELC, GTW, HZC, JFC, OWC, SKY, 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 Core:
ADX 120 Basic Automotive Electricity .......................................3
ADX 121 Basic Automotive Electricity Lab ................................3
ADX 150 Engine Repair ............................................................3
ADX 151 Engine Repair Lab ......................................................2
ADX 170 Climate Control ..........................................................3
ADX 171 Climate Control Lab ...................................................2
AUT 110 Brake Systems .............................................................3
AUT 111 Brake Systems 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 144 Basic Fuel and Ignition Systems ...................................2
AUT 145 Basic Fuel and Ignition Systems Lab ..............................2
AUT 146 Emission Systems .........................................................3
AUT 147 Emission Systems Lab ..................................................2
AUT 148 Basic Fuel and Ignition Systems ...................................3
AUT 149 Basic Fuel and Ignition Systems Lab ..............................2
AUT 150 Engine Repair .............................................................3
AUT 151 Engine Repair 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 Lab ..............2

Subtotal Credits: 21

Total Credits: 69-72

Diploma

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

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

General Education Total Credit Hours 6

Technical or Support Courses:
Digital Literacy course OR demonstrated competency .................0-3
ADX 120 Basic Automotive Electricity .......................................3
ADX 121 Basic Automotive Electricity Lab ................................3
ADX 150 Engine Repair ............................................................3
ADX 151 Engine Repair Lab ......................................................2
AUT 110 Brake Systems .............................................................3
AUT 111 Brake Systems 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 144 Basic Fuel and Ignition Systems ...................................3
AUT 145 Basic Fuel and Ignition Systems Lab ..............................2
AUT 150 Engine Repair .............................................................3
AUT 151 Engine Repair 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 Lab ..............2

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

Subtotal Credits: 55-58

Total Credits: 61-64

Certificates

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

Technical or Support Courses:
ADX 150 Engine Repair ............................................................3
ADX 170 Climate Control ..........................................................3

Total Credits: 5

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

Technical or Support Courses:
ADX 170 Climate Control ..........................................................3

Total Credits: 4

Automotive Electrician - 4706043039
(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

Technical or Support Courses:
ADX 120 Basic Automotive Electricity AND .............................3
ADX 121 Basic Automotive Electricity Lab ................................3
ADX 150 Engine Repair .............................................................3
ADX 151 Engine Repair Lab ......................................................2
AUT 260 Electrical Systems .........................................................3
AUT 261 Electrical Systems Lab .................................................2

Total Credits: 10
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**Engine Repairer - 4706043089**

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**Front End Mechanic - 4706043099**

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<td>Suspension and Steering Lab</td>
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**Hybrid and Electric Vehicle Technician – 4706043139**

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<tr>
<td>AUT 140</td>
<td>Basic Fuel and Ignition Systems</td>
<td>3</td>
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<tr>
<td>AUT 141</td>
<td>Basic Fuel and Ignition Systems Lab</td>
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<tr>
<td>AUT 142</td>
<td>Emissions Systems</td>
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<tr>
<td>AUT 143</td>
<td>Emissions Systems Lab</td>
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<td>ADX 150</td>
<td>Engine Repair</td>
<td>3</td>
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<tr>
<td>ADX 151</td>
<td>Engine Repairer</td>
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<td>ADX 275</td>
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**Manual Transmission/Drive Train Technician - 4706043059**

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<td>AUT 130</td>
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**Tune-up Mechanic - 4706043109**

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<td>ADX 261</td>
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<td>AUT 140</td>
<td>Basic Fuel and Ignition Systems</td>
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<td>AUT 141</td>
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<td>AUT 142</td>
<td>Emissions Systems</td>
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<td>AUT 143</td>
<td>Emissions Systems Lab</td>
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<td>AUT 240</td>
<td>Computer Control Systems and Diagnosis</td>
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**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**

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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<td>ENG 201</td>
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<td>ENG 203</td>
<td>Heritage/Humanities</td>
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<td>ENG 204</td>
<td>Social/Behavioral Sciences</td>
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<td>ATE 102</td>
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<td>ATE 103</td>
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<td>ATE 104</td>
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<td>ATE 222</td>
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**NOTE:** Digital literacy must be demonstrated either by competency exam or by completing a Digital literacy course.
Diploma
Airframe and Power Plant Maintenance Technician - 4706084049
(Offered at JFC, SMC)

General Education: 6 credit hour requirement for diploma
Area 1 = Written Communication, Oral Communications, or
Humanities/Heritage ......................................................... 3
Area 2 = Social/Behavioral Sciences, Natural Sciences, or
Quantitative Reasoning ..................................................... 3
Subtotal 6

ATE 100 Aviation Math ......................................................... 1
ATE 102 Introduction to Aviation Maintenance Technology I ............ 3
ATE 104 Introduction to Aviation Maintenance Technology II ........... 3
ATE 106 Introduction to Aviation Maintenance Technology III ........... 3
ATE 108 Introduction to Aviation Maintenance Technology IV ............ 3
ATE 202 Aircraft Structures I ................................................ 3
ATE 204 Aircraft Structures II ............................................... 3
ATE 206 Aircraft Structures III .............................................. 3
ATE 208 Aircraft Structures IV .............................................. 3
ATE 222 Aircraft Systems I .................................................. 3
ATE 224 Aircraft Systems II .................................................. 3
ATE 226 Aircraft Systems III ................................................ 3
ATE 228 Aircraft Systems IV ................................................ 3
ATE 242 Aircraft Powerplants I ............................................. 3
ATE 244 Aircraft Powerplants II ............................................ 3
ATE 246 Aircraft Powerplants III .......................................... 3
ATE 248 Aircraft Powerplants IV .......................................... 3
ATE 252 Aircraft Powerplant Systems I ................................... 3
ATE 254 Aircraft Powerplant Systems II .................................. 3
ATE 256 Aircraft Powerplant Systems III ................................ 3
ATE 258 Aircraft Powerplant Systems IV ................................ 3

Total Credits 37

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)

ATE 100 Aviation Math ......................................................... 1
ATE 102 Introduction to Aviation Maintenance Technology I ............ 3
ATE 104 Introduction to Aviation Maintenance Technology II ........... 3
ATE 106 Introduction to Aviation Maintenance Technology III ........... 3
ATE 108 Introduction to Aviation Maintenance Technology IV ............ 3
ATE 202 Aircraft Structures I ................................................ 3
ATE 204 Aircraft Structures II ............................................... 3
ATE 206 Aircraft Structures III .............................................. 3
ATE 208 Aircraft Structures IV .............................................. 3
ATE 222 Aircraft Systems I .................................................. 3
ATE 224 Aircraft Systems II .................................................. 3
ATE 226 Aircraft Systems III ................................................ 3
ATE 228 Aircraft Systems IV ................................................ 3
ATE 242 Aircraft Powerplants I ............................................. 3
ATE 244 Aircraft Powerplants II ............................................ 3
ATE 246 Aircraft Powerplants III .......................................... 3
ATE 248 Aircraft Powerplants IV .......................................... 3
ATE 252 Aircraft Powerplant Systems I ................................... 3
ATE 254 Aircraft Powerplant Systems II .................................. 3
ATE 256 Aircraft Powerplant Systems III ................................ 3
ATE 258 Aircraft Powerplant Systems IV ................................ 3

Total Credits 37

Biomedical Technology Systems

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

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

Associate in Applied Science
Biomedical Technology Systems– 1504017029
(Offered at MDC)

General Education Courses
ENG 101 Writing I ............................................................... 3
MAT 126 Technical Algebra and Trigonometry OR ................. 3
MAT 150 College Algebra .................................................... 3
PHY 171 Applied Physics .................................................... 4
BIO 135 Basic Anatomy and Physiology with Laboratory .......... 4
MAT 160 Introduction to Computing ...................................... 3

Technical Support Courses
AIT 1001 Basic Electrical Knowledge ................................... 2
AIT 1101 Electrical Power Distribution .................................. 1
BIO 135 Basic Anatomy and Physiology with Laboratory .......... 4
CTT 105 Introduction to Computing ...................................... 3
CTT 111 Computer Hardware and Software ............................ 4
CTT 160 Introduction to Networking Concepts ....................... 4
CTT 180 Security Fundamentals .......................................... 4

Subtotal 21

Introduction to Aviation Electronics – 4706083099
(Offered at JFC, SMC)

ATE 292 Aviation Electronics ................................................ 3
ATE 293 GROL+Radar Exam Prep ........................................... 3

Total Credits 6

Power Plant Maintenance Technician - 4706083079
(Offered at JFC, SMC)

ATE 100 Aviation Math ......................................................... 1
ATE 102 Introduction to Aviation Maintenance Technology I ............ 3
ATE 104 Introduction to Aviation Maintenance Technology II ........... 3
ATE 106 Introduction to Aviation Maintenance Technology III ........... 3
ATE 108 Introduction to Aviation Maintenance Technology IV ............ 3

Biotechnology Laboratory Technician

The Biotechnology Laboratory Technician AAS program provides the basic knowledge and laboratory skills needed to prepare for entry-level jobs in university, government, pharmaceutical, or industrial biotechnology laboratories. Graduates of the program will be able to seek employment in biotechnology laboratories such as biomanufacturing, quality control, quality assurance, research and development, and regulatory bioscience. The program has been designed to develop skills in basic analysis of biological molecules (DNA and proteins), use of bioreactors, recombinant DNA technology, generation of cell cultures, immunological method applications, regulatory compliance (GMPs and GLPs), accurate documentation, and laboratory safety skills. Some courses are dual credit and college credit can be earned while students are enrolled in secondary school.

The Biotechnology Laboratory 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)

Dr. Montiel: (606) 269-7629

Required General Education Courses

Heritage/Humanities ............................... 3
Social/ Behavioral Sciences ........................ 3
Natural Sciences with Laboratory ............................ 4 – 5
Quantitative Reasoning† ............................... 3
Written Communication ............................. 3
Subtotal: General Education Requirements 16-17

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

Required Technical Core Courses

BTN 101 Introduction to Biotechnology ................................. 1
BTN 105 Applied Biotechnology Laboratory Calculations ................ 3
BTN 201 Biotechnology Techniques I ................................... 4
BTN 202 Biotechnology Techniques II .................................. 4
Digital Literacy† ............................................. 0 - 3
Subtotal: Technical Core Requirements 12-15

† 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</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTN 106 Fundamentals of Scientific Communication</td>
<td>3</td>
</tr>
<tr>
<td>BTN 110 Nucleic Acids</td>
<td>3</td>
</tr>
<tr>
<td>BTN 115 Biomanufacturing</td>
<td>4</td>
</tr>
<tr>
<td>BTN 120 Biofuels</td>
<td>4</td>
</tr>
<tr>
<td>BTN 125 Bioinformatics I</td>
<td>2</td>
</tr>
<tr>
<td>BTN 126 Bioinformatics II</td>
<td>2</td>
</tr>
<tr>
<td>BTN 160 Introduction to Agricultural Biotechnology</td>
<td>4</td>
</tr>
<tr>
<td>BTN 210 Cell Culture and Function</td>
<td>4</td>
</tr>
<tr>
<td>BTN 220 Immunological Methods</td>
<td>4</td>
</tr>
<tr>
<td>BTN 225 Protein Bioseparation Methods</td>
<td>4</td>
</tr>
<tr>
<td>BTN 295 Independent Investigation in Biotechnology^ OR</td>
<td>1-3</td>
</tr>
<tr>
<td>BTN 298 Biotechnology Learning Laboratory^ OR</td>
<td>(1-8)</td>
</tr>
<tr>
<td>COE 199 Cooperative Education^</td>
<td>(1-3)</td>
</tr>
</tbody>
</table>

Or course approved by the program coordinator

Subtotal: Technical Elective Courses 28

Technical Support Courses

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTN 101 Fundamentals of Scientific Communication</td>
<td>3</td>
</tr>
<tr>
<td>BTN 105 Applied Biotechnology Laboratory Calculations</td>
<td>3</td>
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<tr>
<td>BTN 201 Biotechnology Techniques I</td>
<td>4</td>
</tr>
<tr>
<td>BTN 202 Biotechnology Techniques II</td>
<td>4</td>
</tr>
<tr>
<td>CS 115 Introduction to Computer Programming OR</td>
<td>(3)</td>
</tr>
<tr>
<td>INF 120 Elementary Programming</td>
<td>(3)</td>
</tr>
<tr>
<td>INF 282 Introduction to Databases</td>
<td>(3)</td>
</tr>
<tr>
<td>CS 215 Introduction to Program Design, Abstraction, and Problem Solving OR</td>
<td>(4)</td>
</tr>
<tr>
<td>INF 260 Object Oriented Programming LAND</td>
<td>(3)</td>
</tr>
<tr>
<td>INF 260L Object Oriented Programming I Laboratory</td>
<td>(1)</td>
</tr>
<tr>
<td>CIT 155 Web Page Development OR</td>
<td>(3)</td>
</tr>
<tr>
<td>IMD 133 Beginning Web Design OR</td>
<td>(3)</td>
</tr>
<tr>
<td>INF 286 Introduction to Web Development</td>
<td>(3)</td>
</tr>
</tbody>
</table>

Total Technical Support Courses 4

Certificate

Advanced Biotechnician - 4101013050

(Offered at BLC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTN 101 Introduction to Biotechnology</td>
<td>1</td>
</tr>
<tr>
<td>BTN 105 Applied Biotechnology Laboratory Calculations</td>
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<tr>
<td>BTN 125 Bioinformatics I</td>
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<tr>
<td>BTN 126 Bioinformatics II</td>
<td>2</td>
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<tr>
<td>BTN 201 Biotechnology Techniques I</td>
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</tr>
<tr>
<td>BTN 202 Biotechnology Techniques II</td>
<td>4</td>
</tr>
<tr>
<td>INF 260 Object Oriented Programming LAND</td>
<td>(3)</td>
</tr>
<tr>
<td>INF 260L Object Oriented Programming I Laboratory</td>
<td>(1)</td>
</tr>
<tr>
<td>CIT 155 Web Page Development OR</td>
<td>(3)</td>
</tr>
<tr>
<td>IMD 133 Beginning Web Design OR</td>
<td>(3)</td>
</tr>
<tr>
<td>INF 286 Introduction to Web Development</td>
<td>(3)</td>
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</table>

Total 28-29

Choose 15 credits from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BTN 106 Fundamentals of Scientific Communication</td>
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<tr>
<td>BTN 110 Nucleic Acids</td>
<td>3</td>
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<td>BTN 115 Biomanufacturing</td>
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</tr>
<tr>
<td>BTN 120 Biofuels</td>
<td>4</td>
</tr>
<tr>
<td>BTN 125 Bioinformatics I</td>
<td>2</td>
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<td>BTN 220 Immunological Methods</td>
<td>4</td>
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<td>BTN 225 Protein Bioseparation Methods</td>
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</tr>
<tr>
<td>BTN 295 Independent Investigation in Biotechnology^ OR</td>
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</tr>
<tr>
<td>BTN 298 Biotechnology Learning Laboratory^ OR</td>
<td>(1-8)</td>
</tr>
<tr>
<td>COE 199 Cooperative Education^</td>
<td>(1-3)</td>
</tr>
</tbody>
</table>

Or course approved by the program coordinator

Subtotal: Technical Elective Courses 27

Total 60 - 64

Environmental Biotechnician – 4101013070

(Offered at BLC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tr>
<td>BTN 101 Introduction to Biotechnology</td>
<td>1</td>
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<tr>
<td>BTN 105 Applied Biotechnology Laboratory Calculations</td>
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<tr>
<td>BTN 201 Biotechnology Techniques I</td>
<td>4</td>
</tr>
<tr>
<td>BTN 202 Biotechnology Techniques II</td>
<td>4</td>
</tr>
<tr>
<td>CHE 170 General College Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHE 175 General College Chemistry Laboratory I</td>
<td>1</td>
</tr>
<tr>
<td>EST 150 Introductory Ecology</td>
<td>4</td>
</tr>
<tr>
<td>EST 170 Environmental Sampling Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>EST 260 Environmental Methods and Analysis Lab</td>
<td>2</td>
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</tbody>
</table>

Total 21

Bioinformatics – 4101013060

(Offered at BLC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<td>BTN 101 Introduction to Biotechnology</td>
<td>1</td>
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<tr>
<td>BTN 105 Applied Biotechnology Laboratory Calculations</td>
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<td>BTN 125 Bioinformatics I</td>
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<td>CS 115 Introduction to Computer Programming OR</td>
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<td>INF 260 Object Oriented Programming LAND</td>
<td>(3)</td>
</tr>
<tr>
<td>INF 260L Object Oriented Programming I Laboratory</td>
<td>(1)</td>
</tr>
<tr>
<td>CIT 155 Web Page Development OR</td>
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<tr>
<td>IMD 133 Beginning Web Design OR</td>
<td>(3)</td>
</tr>
<tr>
<td>INF 286 Introduction to Web Development</td>
<td>(3)</td>
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</tbody>
</table>

Total 17

Prerequisites:

* At least one semester of college level chemistry and college level biology, with an earned associate's degree or higher.
* Or consent of program coordinator

^ 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.
Broadband Technology

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

Broadband Technician Track

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

Broadband Telecommunications Equipment Installer Track

This track provides course work, competencies and experiences to prepare the students for success as Broadband Telecommunications Equipment Installers. Areas of study as related to this track include Computer Hardware and Software, Introduction to GIS (Graphical Information Systems), Functions and Operation of PBX Systems, Fiber Optics Systems Splicing and Maintenance, Basic Telephony Installations and Maintenance, Outside Plant Pole Climbing and Construction Safety, and document relevant information in a Service Management tool, while preparing for庆典 of cable television and broadband services.

Broadband Design and Applications Track

The track provides course work, competencies and experiences to prepare the students for success in Broadband Design and Applications. Area 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 related 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 Technician Specialist 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>
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<td>MAT 126</td>
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<td>PHYS 171</td>
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<tr>
<td>ENG 101</td>
<td>3</td>
</tr>
<tr>
<td>CIT 111</td>
<td>3</td>
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<tr>
<td>CIT 105</td>
<td>3</td>
</tr>
<tr>
<td>CIT 125</td>
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<tr>
<td>ISX 100</td>
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<td>BBT 100</td>
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<td>BBT 200</td>
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<td>Subtotal</td>
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Technical Core:

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<td>ELT 110</td>
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<td>ELT 120</td>
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<td>BBT 289</td>
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<td>CIT 105</td>
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<td>ISX 100</td>
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<td>BBT 200</td>
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Total Credit Hours: 67-68
Certificates

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

ELT 110 Circuits I .......................................................... 5
BBT 100 Introduction to HFC Cable-TV ................................ 3
BBT 200 Introduction to Cellular Technology ....................... 2
ELT 224 Basic Telecommunications Installation and Maintenance .. 3

Total 13

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

BBT 210 Security Systems Applications .......................... 3
ELT 110 Voice & Data Installer Level I .............................. 4
CIT 105 Introduction to Computers OR .............................. 3
CIT 111 Computer Hardware and Software ....................... 4
CIT 180 Security Fundamentals .................................... 3
CIT 184 Attacks and Exploits ........................................ 3
CRJ 220 Introduction to Computer Forensics for Criminal Justice 3

Total 27

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

ELT 110 Circuits I .......................................................... 5
ELT 120 Digital I ............................................................. 3
CIT 105 Introduction to Computers OR .............................. 3
CIT 111 Computer Hardware and Software ....................... 4
CIT 161 Introduction to Networks .................................... 4
ISX 100 Industrial Safety ........................................... 4
BBT 100 Introduction to HFC Cable-TV ......................... 3
BBT 200 Introduction to Cellular Technology ....................... 2

Total 27

Business Studies

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

Administrative Office Technology

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

The Administrative Office Technology department does not accept non-General Education courses older than 5 years from returning or transfer students without consent of the local program coordinator.

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

Administrative Office Technology – 5204027039
(Offered at BLC, ELC, HPC, JFC, MYC, OWC)

General Education:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</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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<td></td>
<td>Higher Level Quantitative Reasoning Course</td>
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<td></td>
<td>Heritage/Humanities</td>
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<td></td>
<td>Oral Communications Course</td>
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<td></td>
<td>Natural Sciences Course</td>
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<td></td>
<td>Social/Behavioral Sciences Course***</td>
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General Education Credit Hours 18-19

Technical Core

<table>
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<tr>
<th>Course</th>
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<th>Credit Hours</th>
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<tbody>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>OST 110</td>
<td>Word Processing Applications</td>
<td>3</td>
</tr>
<tr>
<td>OST 160</td>
<td>Records and Database Management</td>
<td>3</td>
</tr>
<tr>
<td>OST 210</td>
<td>Advanced Word Processing Application</td>
<td>3</td>
</tr>
<tr>
<td>OST 215</td>
<td>Office Procedures</td>
<td>3</td>
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<td>OST 235</td>
<td>Business Communications Technology</td>
<td>3</td>
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<tr>
<td>OST 240</td>
<td>Advanced Microsoft Applications</td>
<td>3</td>
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<tr>
<td>OST 275</td>
<td>Office Management</td>
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Technical Core Credit Hours 24

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

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<thead>
<tr>
<th>Course</th>
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<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
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<tr>
<td>BAS 120</td>
<td>Personal Finance</td>
<td>3</td>
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<tr>
<td>ENG 102</td>
<td>Writing II</td>
<td>3</td>
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<td>OST 112</td>
<td>Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>OST 225</td>
<td>Introduction to Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>OST 272</td>
<td>Presentation Graphics</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Technical Core Credit Hours 24

Administrative Management Track - 520402701
(Offered at BLC, ELC, HPC, JFC, MYC, OWC)

Available Completely Online

<table>
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<th>Credit Hours</th>
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<tbody>
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<td>ACT 101</td>
<td>Fundamentals of Accounting I OR</td>
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<td>ACT 102</td>
<td>Higher Level Accounting Course</td>
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<tr>
<td>ACT 279</td>
<td>Computerized Accounting Systems</td>
<td>3</td>
</tr>
<tr>
<td>OST 295</td>
<td>Administrative Office Technology Internship OR</td>
<td>3</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
<td>(3)</td>
</tr>
</tbody>
</table>

Total Administrative Management Track 18

Total Credit Hours OST AAS Administrative Management Track 60-61

Desktop Publishing Track - 520402704
(Offered at BLC)

Available Completely Online

<table>
<thead>
<tr>
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<th>Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>OST 130</td>
<td>Typography</td>
<td>3</td>
</tr>
<tr>
<td>OST 225</td>
<td>Introduction to Desktop Publishing</td>
<td>3</td>
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<tr>
<td>OST 250</td>
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Total Desktop Publishing Track Credit Hours 20-21

Total Credit Hours OST AAS Desktop Publishing Track 62-64

Financial Assistant Track - 520402703
(Offered at BLC)

Available Completely Online

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Total Financial Assistant Track Credit Hours 18

Total Credit Hours OST AAS Financial Assistant Track 60-61

Legal Administrative Track - 520402705
(Offered at BLC)

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<td>ACT 102</td>
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<td>ACT 279</td>
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<td>OST 109</td>
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Total Legal Administrative Assistant Track Credit Hours 18

Total Credit Hours OST AAS Legal Administrative Track 60-61

Diplomas

Administrative Assistant - 5204024019

(Offered at BLC, BSC, ELC, JFC, MYC)

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<td>Business Mathematics OR</td>
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Total General Education 6

Technical Courses

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<tr>
<td>ACT 279</td>
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<td>3</td>
</tr>
<tr>
<td>OST 110</td>
<td>Introduction to Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>OST 160</td>
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<tr>
<td>OST 210</td>
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<td>OST 215</td>
<td>Advanced Word Processing Applications</td>
<td>3</td>
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<tr>
<td>OST 225</td>
<td>Office Procedures</td>
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### General Education

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<td>3</td>
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<tr>
<td>BAS 160</td>
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<tr>
<td>ENG 102</td>
<td>Writing II</td>
<td>3</td>
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<tr>
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<td>Editing Skills for the Office Professional</td>
<td>3</td>
</tr>
<tr>
<td>OST 150</td>
<td>Transcription and Office Technology</td>
<td>3</td>
</tr>
<tr>
<td>OST 250</td>
<td>Advanced Desktop Publishing</td>
<td>3</td>
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<tr>
<td>OST 255</td>
<td>Introduction to Business Graphics</td>
<td>3</td>
</tr>
<tr>
<td>OST 272</td>
<td>Presentation Graphics</td>
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</table>

**Total General Education** 36

**Total Credit Hours** 42

### Technical Courses

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

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
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<tr>
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<td>3</td>
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<tr>
<td>OST 150</td>
<td>Transcription and Office Technology</td>
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<tr>
<td>OST 225</td>
<td>Introduction to Desktop Publishing</td>
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<tr>
<td>OST 250</td>
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<tr>
<td>OST 272</td>
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**Total Technical Hours** 32-33

**Total Credit Hours** 38-39

### Desktop Publishing Specialist - 5204024029

*(Offered at BLC)*

**Available Completely Online**

<table>
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<th>Course Title</th>
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<td>Business Calculations for the Office Professional</td>
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<tr>
<td>MAT 105</td>
<td>Business Mathematics OR</td>
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**Total General Education** 6

### Financial Assistant - 5204024049

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

**Available Completely Online**

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<tr>
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<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>
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<tr>
<td>OST 213</td>
<td>Business Calculations for the Office Professional</td>
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<td>MAT 105</td>
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**Total Technical Hours** 38-39

**Total Credit Hours** 44-45

### Legal Office Assistant - 5204024059

*(Offered at BLC)*

**Available Completely Online**

<table>
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<tr>
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<tbody>
<tr>
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<td>OST 213</td>
<td>Business Calculations for the Office Professional</td>
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**Total General Education** 6

### Technical Courses

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

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<td>BAS 160</td>
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<td>ENG 102</td>
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<td>OST 150</td>
<td>Transcription and Office Technology</td>
<td>3</td>
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<td>OST 225</td>
<td>Introduction to Desktop Publishing</td>
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<td>OST 250</td>
<td>Advanced Desktop Publishing</td>
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<tr>
<td>OST 272</td>
<td>Presentation Graphics</td>
<td>3</td>
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</table>

**Total Technical Hours** 36

**Total Credit Hours** 42

### Office Assistant - 5204024039

*(Offered at BLC, BSC, ELC, JFC, MYC)*

**Available Completely Online**

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
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**Total General Education** 6

### Technical Courses

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<th>Course Title</th>
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</tr>
<tr>
<td>Higher Level Quantitative Reasoning Course</td>
<td>(3)</td>
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**Total Technical Hours** 38-39

**Total Credit Hours** 44-45
Choose two courses (6 hours) from the following list:

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<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
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<td>ENG 102</td>
<td>Writing II</td>
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<tr>
<td>OST 150</td>
<td>Transcription and Office Technology</td>
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<td>OST 225</td>
<td>Introduction to Desktop Publishing</td>
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<td>OST 250</td>
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<tr>
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**Total Technical Hours**: 30

**Total Credit Hours**: 36

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### Certificates

#### Administrative - 5204023039
*(Offered at BLC, BSC, HPC, JFC, MYC, OWC)*

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</tr>
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<td>OST 213</td>
<td>Business Calculations for the Office Professional OR</td>
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<td>MAT 105</td>
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<td>OST 240</td>
<td>Advanced Microsoft Applications</td>
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**Total Credit Hours**: 30

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#### Basic Business Presentation - 5204023119
*(Offered at BLC)*

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**Total Credit Hours**: 15

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#### Data Entry Operator - 5204023079
*(Offered at BLC, BSC, ELC, HPC, JFC, MYC, OWC, WKC)*

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**Total Credit Hours**: 6

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#### Desktop Publishing - 5204023099
*(Offered at BLC, BSC)*

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**Total Credit Hours**: 27

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#### Financial Assistant Trainee - 5204023139
*(Offered at BLC, BSC, HPC, JFC, MYC, OWC)*

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<td>OST 110</td>
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<tr>
<td>OST 160</td>
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<tr>
<td>MAT 105</td>
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**Total Credit Hours**: 18

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#### Financial Record Keeper - 5204023069
*(Offered at BLC, BSC, JFC)*

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<th>Course Title</th>
<th>Credits</th>
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<td>3</td>
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<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I OR</td>
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<td>ACT 101</td>
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<td>OST 215</td>
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**Total Credit Hours**: 12

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#### Integrated Office Skills - 5204023059
*(Offered at BLC, BSC, ELC, HPC, JFC, MYC, OWC, WKC)*

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<tr>
<td>OST 105</td>
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<td>Word Processing Applications</td>
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<td>OST 160</td>
<td>Records and Database Management O</td>
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</tr>
<tr>
<td>OST 210</td>
<td>Advanced Word Processing Applications</td>
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<td>Office Procedures</td>
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<tr>
<td>OST 240</td>
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**Total Credit Hours**: 30

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#### Legal Receptionist - 5204023149
*(Offered at BLC, MYC)*

<table>
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<th>Course Title</th>
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<td>OST 108</td>
<td>Editing Skills for the Office Professional OR</td>
<td>3</td>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>(3)</td>
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<tr>
<td>OST 110</td>
<td>Word Processing Applications</td>
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<tr>
<td>OST 160</td>
<td>Records and Database Management</td>
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</tr>
<tr>
<td>OST 109</td>
<td>Legal Terminology</td>
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**Total Credit Hours**: 15
The Business Administration Program prepares students for a variety of careers in business. A core curriculum provides students with a foundation of knowledge applicable to any business career. The Business Administration Program offers an Associate in Applied Science degree, diplomas and a variety of certificates in the areas of Accounting, Entrepreneurship, Financial Perspectives, Business, Hospitality Management, Human Resource Management, Industrial Supervision, Informatics, Leadership, Management, Office Systems, Operations Management, Real Estate Management, Sales, Small Business Management, and Team Leadership.

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

The Accounting Track /Certificate leads to careers in accounting including bookkeeper, accounting clerk, cost payrol clerk and positions using microcomputer-based systems.

The Business Management Track leads to careers for planning and managing people and other resources within organizations.

The Equine Business Management Track provides the knowledge and skills students need to take advantage of various employment opportunities within the horse industry.

The Hospitality Management Track / Certificate prepares students for careers directing specific aspects of hospitality operations and for overall hospitality management.

The Human Resource Management Track / Certificate prepares students for entry-level positions in the human resource field and related occupations.

The Management Track / Certificate prepares the student with broad-based management knowledge and skills which lead to a variety of positions in organizations.

The Marketing Track prepares for careers in various industries utilizing skills within marketing, sales, retail management, social media marketing or entrepreneurship.

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

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

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

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

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

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

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

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

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

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

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

The Public Leadership Certificate enables the student to qualify for leadership positions, work effectively in teams, lead problem solving work groups, understand the conflict resolution processes and plan effectively. The Supervisory Management Certificate prepares the student in the field of front-line supervision.

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

**Associate in Applied Science**

**Business Administration - 5202017129**

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

**General Education:**

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<tr>
<td>COM 252</td>
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<td>Any Economics Course</td>
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<td>MAT 110</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra OR Higher Quantitative Reasoning</td>
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<thead>
<tr>
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**Subtotal** 18

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<tr>
<td>ENG 108</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
<td>3</td>
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<td>OST 108</td>
<td>Editing Skills for the Office Professional OR</td>
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</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
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<tr>
<td>OST 160</td>
<td>Records and Database Management</td>
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<tr>
<td>OST 110</td>
<td>Word Processing Applications</td>
<td>3</td>
</tr>
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**Total Credit Hours** 12
Technical Courses:

- CIT 105 Introduction to Computers OR .............................................. 3
- OST 105 Introduction to Information Systems ........................................ (3)
- ENG 102 Writing II OR ................................................................. 3
- OST 235 Business Communications Technology .................................... (3)
- BAS 160 Introduction to Business ..................................................... 3
- BAS 260 Professional Development and Protocol .................................... 2
- BAS 270 Business Employability Seminar ............................................ 1
- BAS 267 Introduction to Business Law ................................................ 3
- BAS 282 Principles of Marketing OR .................................................. 3
- MKT 282 Principles of Marketing ....................................................... (3)
- MGT 283 Principles of Management ..................................................... (3)
- ACC 201 Financial Accounting .......................................................... 3
- ACC 202 Managerial Accounting ........................................................ 3
- Core Subtotal ..................................................................................... 27

Business Administration Tracks

Accounting Track - 520201701

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

Available Completely Online

Required:

- ACT 279 Computerized Accounting Systems ........................................ 3
- ACT 281 Individual Taxation ............................................................... 3
- ACT 286 Financial Accounting Topics ................................................. 3
- BAS 110 Worksheets in Business Applications OR ............................ (3)
- CIT 130 Productivity Software OR ...................................................... (3)
- OST 240 Advanced Microsoft Applications ........................................ (3)

Choose 6 hours (not duplicated from the core) from the following Technical Courses.

- ACT 198 Payroll Accounting ............................................................... 3
- ACT 277 Managerial Accounting Topics ............................................. 3
- ACT 290 Selected Topics in Accounting (Topic) ................................. 1-3
- ACT 295 Corporate and Partnership Taxation ...................................... 3
- BAS 120 Personal Finance .................................................................. 3
- BAS 212 Introduction to Financial Management .................................. 3
- COE 199 Cooperative Education: (Business Administration) OR ........... 1-3
- BAS 280 Business Internship ............................................................. (1-4)

Subtotal ............................................................................................... 18

Total Credits ....................................................................................... 63

Business Management Track – 520201717

(Offered at BLC, HZC)

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 287 Supervisory Management ..................................................... 3
- MGT 293 Business Ethics and Self-Management ................................... 3
- MGT 293 Business Ethics and Self-Management ................................... 3
- MGT 290 Operations Management ..................................................... 3
- MGT 298 Project Management ........................................................... 3
- MGT 274 Human Resource Management ........................................... 3
- MGT 287 Supervisory Management ..................................................... 3
- MKT 155 Personal Selling .................................................................... 3
- MKT 290 Advertising and Promotion .................................................. 3
- MKT 291 Retail Management .............................................................. 3
- MKT 293 Buying and Merchandising .................................................... 3
- MKT 299 Selected Topics in Business Management: (Topic) .................. 1-3
- MKT 299 Selected Topics in Marketing: (Topic) .................................... 1-3
- BAS 110 Worksheets in Business Applications OR ............................ (3)
- CIT 130 Productivity Software OR ...................................................... (3)
- OST 240 Advanced Microsoft Application .......................................... (3)
- PSY 110 General Psychology .............................................................. 3
- SOC 101 Introduction to Sociology ...................................................... (3)
- REA 100 Real Estate Principles I ......................................................... 3
- REA 120 Real Estate Marketing ........................................................... 3
- STA 291 Statistical Methods ............................................................... 3

Subtotal ............................................................................................... 17-19

Total Credits ....................................................................................... 62-64

Equine Business Management Track – 520201718

(Offered at BLC)

Required:

- EQS 110 Basic Equine Physiology ...................................................... 3
- EQS 103 Racehorse Care .................................................................... 3
- EQS 104 Racehorse Care Lab OR ...................................................... 3
- EQS 299 Equine Internship ................................................................. (1-3)
- 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 ............................................................................................... 17-19

Total Credits ....................................................................................... 62

Hospitality Management Track - 520201703

(Offered at BLC, BSC, ELC, HPC, WKC)

Required:

- HOS 100 Introduction to Hospitality .................................................. 3
- CUL 100 Introduction to Culinary Arts ............................................... 2
- HOS 282 Tourism Marketing ............................................................. 3

Choose 9 hours (not duplicated from the core) from the following Technical Courses.

- BAS 200 Small Business Management .............................................. 3
- BAS 274 Human Resource Management ........................................... 3
- BAS 299 Management, Ethics & Society ............................................. 1-3
- COE 199 Cooperative Education: Business Administration OR ........ 1-3
- BAS 280 Business Internship ............................................................. (1-4)
- CUL 105 Applied Introduction to Culinary Arts ................................... 2
- CUL 125 Sanitation & Safety ............................................................... 2
- CUL 270 Human Relations Management .......................................... 3
- CUL 280 Cost & Control ................................................................. 3
- HOS 160 Security for the Hospitality Industry ................................... 3
- HOS 200 Cultural Heritage Tourism ............................................... 3
- HOS 210 Front Office Management .................................................. 3

Subtotal Credits .................................................................................. 17

Total .................................................................................................... 62

97
Human Resource Management Track - 520201715
(Offered at BLC, ELC, HEC, MDC, SKY, WKC)
Available Completely Online

**Required:**
- BAS 274 Human Resource Management .............. 3
- BAS 287 Supervisory Management .................. 3
- ACT 196 Payroll Accounting .......................... 3

**Choose 9 hours (not duplicated from the core) from the following Approved Technical Courses:**
- BAS 280 Business Internship OR .................... 1-4
- COE 199 Cooperative Education ................. (1-3)
- BAS 201 Customer Service Improvement Skills .... 3
- BAS 212 Introduction to Financial Management OR 3
- BAS 284 Applied Management Skills ............... 3
- BAS 288 Person & Organizational Leadership .... 3
- BAS 290 Management, Ethics & Society .......... 3
- BAS 299 Selected Topics in Management: (Track Topic) .... 1-3
- BAS 110 Worksheets in Business Applications OR 3
- CIT 130 Productivity Software OR ................ (3)
- OST 240 Advanced Microsoft Applications ........ (3)
- PSY 180 Human Relations ............................ 3

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| Total Credits | 63 |

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

**Required:**
- BAS 110 Worksheets in Business Applications OR .......... 3
- CIT 130 Productivity Software OR .................. (3)
- BAS 212 Introduction to Financial Management OR .......... 3
- BAS 284 Applied Management Skills ................... 3
- CIT 130 Productivity Software OR .................. (3)
- **Total Credits:** 18

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<td>CIT 130</td>
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**Technical Courses:**
- ACT 177 Entrepreneurial Accounting ...................... 3
- ACT 196 Payroll Accounting ............................ 3
- BAS 110 Worksheets in Business Applications .......... 3
- BAS 120 Personal Finance .................................. 3
- BAS 126 Social Media Marketing: Product Management and Implementation Strategies .......... 3
- ENG 203 Business Writing OR ............................ 3
- OST 235 Business Communications Technology .......... (3)
- COE 199 Cooperative Education: (Business Administration) ...... 1-3

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<td>ENG 203</td>
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**Marketing Sequence:**
- MKT 290 Advertising and Promotion .................. 3
- MKT 295 Consumer Behavior ............................ 3
- BAS 125 Social Media Marketing Fundamental Concepts, Skills, and Strategies .......... 3
- MGT 240 Business Ethics and Self-Management .......... 3

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<td>MKT 295</td>
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<td>BAS 125</td>
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<tr>
<td>MGT 240</td>
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| Total Credit | 12 |

**Retail Management Sequence:**
- MKT 291 Retail Management ............................ 3
- MKT 155 Personal Selling ............................... 3
- MKT 290 Advertising and Promotion .................. 3
- MGT 240 Business Ethics and Self-Management .......... 3

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<td>3</td>
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<tr>
<td>MGT 240</td>
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</tbody>
</table>

| Total Credit | 12 |

**Social Media Sequence:**
- BAS 125 Social Media Marketing Fundamental Concepts, Skills, and Strategies .......... 3
- BAS 126 Social Media Marketing: Project Management and Implementation Strategies .......... 3
- MKT 290 Advertising and Promotion .................. 3
- IMD 115 Introduction to Graphic Design ................ 3

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<td>IMD 115</td>
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| Total Credit | 12 |

**Entrepreneurship Sequence:**
- BAS 170 Entrepreneurship ............................... 3
- BAS 288 Personal and Organizational Leadership .......... 3
- MGT 200 Small Business Management OR .............. 3
- BAS 200 Small Business Management ................... (3)
- MKT 155 Personal Selling ............................... 3

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| Total Credit | 12 |
### Approved Marketing Electives

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<td>Skills, and Strategies</td>
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<td>Social Media Marketing: Project Management and</td>
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<td>Implementation Strategies</td>
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<td>BAS 110</td>
<td>Worksheets in Business Applications OR</td>
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<td>CIT 130</td>
<td>Productivity Software OR</td>
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**Total Credit Hours**: 63

### Real Estate Management Track - 520201706

(Offered at BSC, ELC, ELC, WKC)

**Required:**

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<td>REA 225</td>
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<td>REA 230</td>
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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.

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<td>Construction and Blueprints</td>
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<td>Real Estate Principles II</td>
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<tr>
<td>REA 201</td>
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**Subtotal**: 18

**Total Credits**: 63

### General Education:

**Area 1 =**

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**Area 2 =**

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<td>3</td>
</tr>
</tbody>
</table>

**General Education Subtotal**: 6

### Diplomas

**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 ID</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<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>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
<td>(3)</td>
</tr>
</tbody>
</table>

**Area 2 =**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO</td>
<td>Any Economics Course</td>
<td>3</td>
</tr>
</tbody>
</table>

**General Education Subtotal**: 6

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.

**Required Technical:**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 202</td>
<td>Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BAS 212</td>
<td>Introduction to Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 260</td>
<td>Professional Development and Protocol.</td>
<td>2</td>
</tr>
<tr>
<td>BAS 267</td>
<td>Introduction to Business Law</td>
<td></td>
</tr>
<tr>
<td>BAS 274</td>
<td>Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 282</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BAS 290</td>
<td>Management, Ethics &amp; Society</td>
<td>3</td>
</tr>
<tr>
<td>CIT 130</td>
<td>Productivity Software OR</td>
<td>3</td>
</tr>
<tr>
<td>OST 240</td>
<td>Advanced Microsoft Applications OR</td>
<td>(3)</td>
</tr>
<tr>
<td>BAS 110</td>
<td>Worksheets in Business Applications</td>
<td>(3)</td>
</tr>
<tr>
<td>OST 275</td>
<td>Office Management</td>
<td></td>
</tr>
</tbody>
</table>

**Approved Technical Courses**: 11-12

**Total Credits**: 39-43

**Small Business Management - 5202014039**

*(Offered at BSC, ELC, HZC, JFC, MDC, OWC, SKY, SMC, WKC)*

Available Completely Online

**General Education:**

**Area 1 =**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<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>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
<td>(3)</td>
</tr>
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</table>

**Area 2 =**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO</td>
<td>Any Economics Course</td>
<td>3</td>
</tr>
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</table>

**General Education Subtotal**: 6
### Required Technical:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 105</td>
<td>Introduction to Computers OR</td>
<td>3</td>
</tr>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 170</td>
<td>Entrepreneurship*</td>
<td>3</td>
</tr>
<tr>
<td>BAS 200</td>
<td>Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 212</td>
<td>Introduction to Financial Management * OR</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Second Quantitative Reasoning Course*</td>
<td>(3)</td>
</tr>
<tr>
<td>BAS 267</td>
<td>Introduction to Business Law</td>
<td>3</td>
</tr>
<tr>
<td>BAS 282</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BAS 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 177</td>
<td>Entrepreneurial Accounting OR</td>
<td>(3)</td>
</tr>
<tr>
<td>BAS 280</td>
<td>Business Internship OR</td>
<td>1-4</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
<td></td>
</tr>
</tbody>
</table>

**Required Technical Subtotal**  25-28

Choose 6 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Business Administration Systems Program Coordinator.

**Approved Technical Courses**  6

Total Credits 37-40

*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, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
  **Available Completely Online**

**Required:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<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>
</tbody>
</table>

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

### Advanced Business Administration - 5202013129

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

**Available Completely Online**

**Required:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 282</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 267</td>
<td>Introduction to Business Law</td>
<td>3</td>
</tr>
<tr>
<td>BAS 284</td>
<td>Applied Management Skills</td>
<td>3</td>
</tr>
<tr>
<td>CIT 130</td>
<td>Productivity Software OR</td>
<td>3</td>
</tr>
<tr>
<td>OST 240</td>
<td>Advanced Microsoft Applications OR</td>
<td>(3)</td>
</tr>
<tr>
<td>BAS 110</td>
<td>Worksheets in Business Applications</td>
<td>(3)</td>
</tr>
</tbody>
</table>

Total Credits 15

- **Business Transfer - 5202013149**
  (Offered at ASC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
  **Available Completely Online**

**Required:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<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 267</td>
<td>Introduction to Business Law</td>
<td>3</td>
</tr>
<tr>
<td>ECO 201</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECO 202</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>STA 220</td>
<td>Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits 18

- **Entrepreneurship – 5202013379**
  (Offered at BLC, ELC, GTW, HEC, HPC, MDC, OWC, SEC, SKY, SMC, WKC)
  **Available Completely Online**

**Required:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 201</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACT 177</td>
<td>Entrepreneurial Accounting OR</td>
<td>(3)</td>
</tr>
<tr>
<td>BAS 170</td>
<td>Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>BAS 282</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BAS 288</td>
<td>Personal and Organizational Leadership</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose 3 credit hours from the following Technical Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 110</td>
<td>Worksheets in Business Applications</td>
<td>(3)</td>
</tr>
<tr>
<td>BAS 125</td>
<td>Social Media Marketing: Fundamental Concepts, Skills, and Strategies</td>
<td>3</td>
</tr>
<tr>
<td>BAS 201</td>
<td>Customer Service Improvement Skills</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits 15

- **Financial Perspectives - 5202013159**
  (Offered at ASC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)
  **Available Completely Online**

**Required:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 201</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BAS 120</td>
<td>Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introductions to Business</td>
<td>3</td>
</tr>
<tr>
<td>BAS 212</td>
<td>Introduction to Financial Management OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 293</td>
<td>Principles of Finance</td>
<td>(3)</td>
</tr>
</tbody>
</table>
### Required:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 282</td>
<td>Tourism Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BAS 201</td>
<td>Customer Service Improvement Skills</td>
<td>3</td>
</tr>
<tr>
<td>HOS 100</td>
<td>Introduction to Hospitality</td>
<td>3</td>
</tr>
<tr>
<td>CIT 130</td>
<td>Productivity Software OR</td>
<td>3</td>
</tr>
<tr>
<td>ACC 201</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ECO 105</td>
<td>Any Economics Course</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits:** 15

### General Business - 5202013169

*(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 Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>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>ACC 201</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ECO 105</td>
<td>Any Economics Course</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits:** 12

### Hospitality Management - 5202013179

*(Offered at BLC, BSC, ELC, HZC, SEC, WKC)*

### Choose 9 hours from the following Technical Courses.

Students may select other courses (HOS or CUL) as approved by the Business Administration Program Coordinator.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 200</td>
<td>Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 274</td>
<td>Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education: Business Administration OR</td>
<td>(1-3)</td>
</tr>
<tr>
<td>BAS 280</td>
<td>Business Internship</td>
<td>(1-4)</td>
</tr>
<tr>
<td>BAS 290</td>
<td>Management, Ethics &amp; Society</td>
<td>3</td>
</tr>
<tr>
<td>CUL 105</td>
<td>Applied Fundamentals of the Culinary Arts Profession</td>
<td>3</td>
</tr>
<tr>
<td>CUL 125</td>
<td>Sanitation &amp; Safety</td>
<td>3</td>
</tr>
<tr>
<td>CUL 270</td>
<td>Human Relations Management</td>
<td>3</td>
</tr>
<tr>
<td>CUL 280</td>
<td>Cost &amp; Control</td>
<td>3</td>
</tr>
<tr>
<td>HOS 160</td>
<td>Security for the Hospitality Industry</td>
<td>3</td>
</tr>
<tr>
<td>HOS 200</td>
<td>Cultural Heritage-Tourism</td>
<td>3</td>
</tr>
<tr>
<td>HOS 210</td>
<td>Front Office Operations &amp; Management</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits:** 17

### Human Resource Management - 5202013359

*(Offered at ASC, BSC, ELC, GTW, HEC, HZC, MDC, MYC, SEC, SKY, WKC)*

### Required:

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

**Choose 9 hours from the following Technical Courses.**

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 201</td>
<td>Customer Service Improvement Skills</td>
<td>3</td>
</tr>
<tr>
<td>BAS 212</td>
<td>Introduction to Financial Management OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 280</td>
<td>Business Internship</td>
<td>1-4</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education: Business Administration OR</td>
<td>(1-3)</td>
</tr>
<tr>
<td>CIT 130</td>
<td>Productivity Software OR</td>
<td>3</td>
</tr>
<tr>
<td>OST 240</td>
<td>Advanced Software Applications OR</td>
<td>(3)</td>
</tr>
<tr>
<td>BAS 110</td>
<td>Worksheets in Business Applications</td>
<td>(3)</td>
</tr>
<tr>
<td>BAS 284</td>
<td>Applied Management Skills</td>
<td>3</td>
</tr>
<tr>
<td>BAS 288</td>
<td>Person &amp; Organizational Leadership</td>
<td>3</td>
</tr>
<tr>
<td>BAS 290</td>
<td>Management, Ethics &amp; Society</td>
<td>3</td>
</tr>
<tr>
<td>BAS 299</td>
<td>Selected Topics in Management: (Track Topic)</td>
<td>1-3</td>
</tr>
<tr>
<td>OST 275</td>
<td>Office Management</td>
<td>1-3</td>
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<tr>
<td>PSY 180</td>
<td>Human Relations</td>
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</table>

**Total Credits:** 18

### Operations Management - 5202013369

*(Offered at BLC, BSC, GTW, HEC, HZC, MDC, MYC, SEC, WKC)*

### Required:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BAS 287</td>
<td>Supervisory Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 288</td>
<td>Personal &amp; Organizational Leadership</td>
<td>3</td>
</tr>
<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
</tr>
<tr>
<td>BAS 289</td>
<td>Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>MFG 256</td>
<td>Production Management</td>
<td>(3)</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Skills</td>
<td>(3)</td>
</tr>
</tbody>
</table>

**Total Credits:** 15

### Payroll Accounting Specialist - 5202013499

*(Offered at ASC, BSC, GTW, HEC, MDC, MYC, OWC, SEC, SKY, SMc, WKC)*

### Required:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 201</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACT 196</td>
<td>Payroll Accounting</td>
<td>3</td>
</tr>
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<td>ACT 279</td>
<td>Computerized Accounting Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits:** 9

### Public Leadership - 5202013199

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

### Required:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit 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>BAS 170</td>
<td>Entrepreneurship</td>
<td>(3)</td>
</tr>
<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 287</td>
<td>Supervisory Management</td>
<td>(3)</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
<td>(3)</td>
</tr>
</tbody>
</table>

**Choose 3 hours from the following Technical Courses.**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 125</td>
<td>Social Media Marketing: Fundamental Concepts, Skills, and Strategies</td>
<td>3</td>
</tr>
<tr>
<td>BAS 282</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BAS 299</td>
<td>Selected Topics in Business Management (Track Topic)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits:** 15
**Real Estate Pre-Licensing - 5202013239**  
(Offered at ASC, BLC, BSC, ELC, MDC, MYC, SEC, WKC)

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

**Choose 3 hours from the following Technical Courses.**

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

- REA 120 Real Estate Marketing ................................................... 3
- REA 200 Real Estate Principles II .................................................. 3
- REA 225 Real Estate Finance .......................................................... 3
- REA 230 Real Estate Law ............................................................... 3

**Total Credits** 6

---

**Real Estate Residential - 5202013249**  
(Offered at BLC, BSC, ELC, MDC, MYC, SEC, WKC)

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

**Choose 6 hours from the following Approved Technical Courses.**

- REA 121 Appraising ................................................................. 3
- REA 122 Construction and Blueprints ........................................... 3
- REA 200 Real Estate Principles II .................................................. 3
- REA 201 Property Management ..................................................... 3
- REA 225 Real Estate Finance .......................................................... 3
- REA 230 Real Estate Law ............................................................... 3

**Total Credits** 12

---

**Small Business Management - 5202013269**  
(Offered at ASC, BLC, BSC, ELC, HEC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, SKY, WKC)

**Available Completely Online**

**Required:**
- BAS 160 Introduction to Business OR ........................................... 3
- BAS 170 Entrepreneurship ............................................................. 3
- BAS 200 Small Business Management ............................................. 3
- BAS 212 Introduction to Financial Management OR .......................... 3
- BAS 282 Principles of Marketing .................................................... 3
- ACC 201 Financial Accounting OR .................................................. 3
- ACT 177 Entrepreneurial Accounting ................................................. 3
- BAS 287 Supervisory Management OR ............................................. 3
- BAS 288 Personal & Organizational Leadership .................................

**Total Credits** 18

---

**Supervisory Management - 5202013279**  
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

**Available Completely Online**

**Required:**
- CIT 105 Introduction to Computers OR ........................................... 3
- OST 105 Introduction to Information Systems ..................................... 3
- OST 235 Business Communications Technology .................................. 3
- BAS 160 Introduction to Business .................................................. 3
- BAS 287 Supervisory Management ................................................... 3

**Total Credits** 18

---

**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 BLC, GTW)

**General Education**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>3</td>
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<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
<td>3</td>
</tr>
<tr>
<td>ECO 101</td>
<td>Contemporary Economic Issues OR</td>
<td>3</td>
</tr>
<tr>
<td>ECO 202</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics or Higher Quantitative Reasoning</td>
<td>3</td>
</tr>
<tr>
<td>ECO 201</td>
<td>Principles of Microeconomics OR</td>
<td>3</td>
</tr>
<tr>
<td>ECO 202</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
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#### Technical Courses

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<thead>
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<td>3</td>
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<td>LOM 100</td>
<td>Introduction to Logistics Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BAS 256</td>
<td>International Business</td>
<td>3</td>
</tr>
<tr>
<td>BAS 288</td>
<td>Personal and Organization Leadership</td>
<td>3</td>
</tr>
<tr>
<td>BAS 289</td>
<td>Operations Management OR</td>
<td>3</td>
</tr>
<tr>
<td>MGT 256</td>
<td>Operations Management OR</td>
<td>3</td>
</tr>
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<td>LOM 100</td>
<td>Introduction to Logistics Management</td>
<td>3</td>
</tr>
<tr>
<td>LOM 101</td>
<td>Transportation</td>
<td>3</td>
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<tr>
<td>LOM 102</td>
<td>Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>LOM 202</td>
<td>Applied Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>LOM 210</td>
<td>Lean for Logistics</td>
<td>3</td>
</tr>
<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
</tr>
<tr>
<td>BAS 201</td>
<td>Customer Improvement Skills</td>
<td>3</td>
</tr>
<tr>
<td>QMS 212</td>
<td>Project Management OR</td>
<td>3</td>
</tr>
<tr>
<td>MGT 258</td>
<td>Project Management OR</td>
<td>3</td>
</tr>
<tr>
<td>QMS 251</td>
<td>Strategic Quality Planning</td>
<td>3</td>
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<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
<td>1-3</td>
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</table>

**Subtotal** 18

#### Logistics Operations – 5202033079

(Offered at BLC, ELC, GTW, HPC, MDC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>LOM 100</td>
<td>Introduction to Logistics Management</td>
<td>3</td>
</tr>
<tr>
<td>LOM 102</td>
<td>Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>LOM 210</td>
<td>Lean for Logistics</td>
<td>3</td>
</tr>
<tr>
<td>BAS 289</td>
<td>Operations Management OR</td>
<td>3</td>
</tr>
<tr>
<td>QMS 212</td>
<td>Project Management OR</td>
<td>3</td>
</tr>
<tr>
<td>MGT 258</td>
<td>Project Management OR</td>
<td>3</td>
</tr>
<tr>
<td>QMS 251</td>
<td>Strategic Quality Planning</td>
<td>3</td>
</tr>
<tr>
<td>OST 235</td>
<td>Business Communications OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Interpersonal Communications</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits** 21

---

### Business Communication

**Certificate**

#### Logistics Quality Technician – 5202033069

(Offered at BLC, GTW, HPC, MDC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
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<tr>
<td>LOM 100</td>
<td>Introduction to Logistics Management</td>
<td>3</td>
</tr>
<tr>
<td>LOM 102</td>
<td>Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>LOM 210</td>
<td>Lean for Logistics</td>
<td>3</td>
</tr>
<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
</tr>
<tr>
<td>MGT 258</td>
<td>Project Management OR</td>
<td>3</td>
</tr>
<tr>
<td>QMS 251</td>
<td>Strategic Quality Planning</td>
<td>3</td>
</tr>
<tr>
<td>OST 235</td>
<td>Business Communications OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Interpersonal Communications</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits** 21

---

#### Supply Chain Specialist – 5202033059

(Offered at BLC, GTW, HPC, MDC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
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<tr>
<td>LOM 100</td>
<td>Introduction to Logistics Management</td>
<td>3</td>
</tr>
<tr>
<td>LOM 102</td>
<td>Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>LOM 210</td>
<td>Lean for Logistics</td>
<td>3</td>
</tr>
<tr>
<td>OST 235</td>
<td>Business Communications OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Interpersonal Communications</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits** 15

---

#### 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, GTW, HZC, OWC, SEC)

Complete 2 (two) course from the list below.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BAS 274</td>
<td>Human Resource Management</td>
<td>3</td>
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<tr>
<td>BAS 282</td>
<td>Principles of Marketing</td>
<td>3</td>
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<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 287</td>
<td>Supervisory Management</td>
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</table>

**Subtotal** 6

Complete 3 (three) course from the list below.

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking</td>
<td>3</td>
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<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
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<td>COM 254</td>
<td>Introduction to Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td>COM 281</td>
<td>Communication in Small Groups</td>
<td>3</td>
</tr>
<tr>
<td>COM 287</td>
<td>Persuasive Speaking</td>
<td>3</td>
</tr>
</tbody>
</table>

**Subtotal** 9

**Total Credit Hours** 15
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, GTW, SEC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
</tr>
<tr>
<td>ACC 201</td>
<td>Financial Accounting OR</td>
<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>
<td>3</td>
</tr>
<tr>
<td>ECO 201</td>
<td>Principles of Microeconomics OR</td>
<td>3</td>
</tr>
<tr>
<td>ECO 101</td>
<td>Contemporary Economic Issues OR</td>
<td>3</td>
</tr>
<tr>
<td>ECO 202</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
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<tr>
<td></td>
<td>Technical Courses*</td>
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<tr>
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<td><strong>Total Credit Hours</strong></td>
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</table>

Select 9 (nine) credit hours from the following technical courses*:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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<tbody>
<tr>
<td>BAS 267</td>
<td>Introduction to Business Law</td>
<td>3</td>
</tr>
<tr>
<td>BAS 290</td>
<td>Management, Ethics &amp; Society**</td>
<td>3</td>
</tr>
<tr>
<td>BAS 288</td>
<td>Personal &amp; Organizational Leadership</td>
<td>3</td>
</tr>
<tr>
<td>QMS 240</td>
<td>Statistics for Quality I***</td>
<td>3</td>
</tr>
<tr>
<td>QMS 212</td>
<td>Project Management</td>
<td>3</td>
</tr>
</tbody>
</table>

**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.

Career Facilitator

The Career Facilitator Certificate Program is comprised of the Facilitating Career Development (FCD) curriculum from the National Career Development Association (NCDA), and will provide knowledge, skills, and experience in assisting clients with career assessments, labor market information, decision-making skills, employability skills, and job placement. Graduates are eligible to apply for certification as a Certified Career Services Professional (CCSP) with the NCDA; a case study examination and references are also required for certification. With additional career services work experience, graduates can pursue the Global Career Development Facilitator (GCDF) certification.

Certificate

Career Facilitator – 13110113019
(Offered at ASC, BSC, GTW, SEC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDC 151</td>
<td>Facilitating Career Development I</td>
<td>3</td>
</tr>
<tr>
<td>SDC 152</td>
<td>Facilitating Career Development II</td>
<td>3</td>
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<tr>
<td>SDC 153</td>
<td>Career Facilitator Practicum</td>
<td>1</td>
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<tr>
<td></td>
<td>Oral Communication Course</td>
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</tr>
<tr>
<td></td>
<td>Written Communication Course</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Social/Behavioral Science Course</td>
<td>3</td>
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<tr>
<td></td>
<td><strong>Total</strong></td>
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</table>

Certified Medical Technician

The program bundles the current classes of NAA100, PHB152, PHB170 and CPR100. Once all of these classes are completed successfully the graduate will be eligible to receive the certified medical technician certificate. The program allows the graduate to either enter the healthcare field with a varied technical skill set and/or enter a healthcare program.

Certificate

Certified Medical Technician – 5108993039
(Offered at ASC, BSC, MDC, MYC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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<tr>
<td>CPR 100</td>
<td>CPR for Healthcare Professionals</td>
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<tr>
<td>NAA 100</td>
<td>Nursing Assistant Skills I</td>
<td>3</td>
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<td>PHB 152</td>
<td>Phlebotomy: Clinical Experience</td>
<td>3</td>
</tr>
<tr>
<td>PHB 170</td>
<td>Applied Phlebotomy</td>
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</table>

Civil Engineering Technology

The Civil Engineering Technology program is designed to offer students the training necessary to establish careers in civil engineering technology fields. Career options include materials testing; residential and highway surveying; highway construction management; construction documentation; civil & survey mapping; construction site design and waste-water management.

Progression in the Civil Engineering Technology Program is contingent upon achievement of a grade "C" or greater in each technical and mathematics course with a maintenance of a 2.0 cumulative grade point average or above (based on a 4.0 scale). Associate in Applied Science

Certificate

Civil Engineering Technology - 1502017019
(Offered at BLC, BSC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
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<td></td>
<td>Higher Level Quantitative Reasoning course</td>
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<td></td>
<td>Natural Sciences</td>
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<td></td>
<td>Social/Behavioral Sciences Course</td>
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<td>Heritage/Humanities</td>
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Technical Core

<table>
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<td>Introduction to Computer Aided Design</td>
<td>3</td>
</tr>
<tr>
<td>CAD 102</td>
<td>Drafting Fundamentals</td>
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<tr>
<td>SMT 110</td>
<td>Principles of Surveying</td>
<td>3</td>
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<tr>
<td>CET 150</td>
<td>Civil Engineering Graphics</td>
<td>3</td>
</tr>
<tr>
<td>CET 200</td>
<td>Civil Engineering Materials OR</td>
<td>3</td>
</tr>
<tr>
<td>SMT 130</td>
<td>Land Surveying Graphics</td>
<td>3</td>
</tr>
<tr>
<td>CET 210</td>
<td>Infrastructure Analysis and Design</td>
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</tr>
<tr>
<td>CET 260</td>
<td>Hydrology and Drainage</td>
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<td>CAD 298</td>
<td>Practicum OR</td>
<td>1-3</td>
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<tr>
<td>CAD 299</td>
<td>Cooperative Education OR</td>
<td>(1-3)</td>
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<td>COE 199</td>
<td>Cooperative Education</td>
<td>(1-3)</td>
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</table>
Technical Electives

Any courses with ACH, BRX, CAD, CET, COE, GIS, and SMT prefixes

CAR 126 Intro to Construction .................................................. 3
CAR 127 Intro to Construction Lab .............................................. 1
CAR 140 Surveying & Foundations ........................................... 3
CAR 141 Surveying & Foundations Lab ..................................... 2
PLW 100 Introduction to Engineering Design ...................... 4
PLW 125 Principles of Engineering ....................................... 4
PLW 225 Civil Engineering and Architecture ...................... 4
PLW 295 Engineering Design and Development ................. 4
TRI 100 Truck Driving ......................................................... 6

This list is not all inclusive. Other courses may be taken as approved by the program coordinator.

Diploma

Civil Engineering Technology - 1502014019
(Offered at)

General Education

Written Communication OR.................................................. 3
Oral Communications OR................................................... (3)
Humanities/Heritage ....................................................... (3)
MAT 116 Technical Mathematics OR.................................... 3
Higher Level Quantitative Reasoning course .................. (3)
Subtotal 6

Technical Core

CAD 100 Introduction to Computer Aided Design ........... 3
CAD 102 Drafting Fundamentals ....................................... 4
SMT 110 Principles of Surveying ..................................... 3
CET 150 Civil Engineering Graphics ................................ 3
Technical Electives ....................................................... 3-4

(Choose from the Technical Electives List)

Subtotal 16-17
Total 22-23

Civil Engineering Technician II – 1502013029
(Offered at BSC, BLC)

General Education

Written Communication OR.................................................. 3
Oral Communications OR................................................... (3)
Humanities/Heritage ....................................................... (3)
MAT 116 Technical Mathematics OR.................................... 3
Higher Level Quantitative Reasoning course .................. (3)
Subtotal 6

Technical Core

CAD 100 Introduction to Computer Aided Design ........... 3
CAD 102 Drafting Fundamentals ....................................... 4
SMT 110 Principles of Surveying ..................................... 3
CET 150 Civil Engineering Graphics ................................ 3
Technical Electives ....................................................... 3-4

(Choose from the Technical Electives List)

Subtotal 16-17
Total 22-23

Civil Engineering Technician III – 1502013039
(Offered at BSC, BLC)

General Education

Written Communication OR.................................................. 3
Oral Communications OR................................................... (3)
Humanities/Heritage ....................................................... (3)
MAT 116 Technical Mathematics OR.................................... 3
Higher Level Quantitative Reasoning course .................. (3)
Subtotal 6

Technical Core

CAD 100 Introduction to Computer Aided Design ........... 3
CAD 102 Drafting Fundamentals ....................................... 4
SMT 110 Principles of Surveying ..................................... 3
CET 150 Civil Engineering Graphics ................................ 3
CET 200 Civil Engineering Materials OR ......................... 3
SMT 130 Land Surveying Graphics .................................. 3
CET 210 Infrastructure Analysis and Design ..................... 3
Technical Electives ....................................................... 3-4

(Choose from the Technical Electives List)

Subtotal 22-23
Total 28-29

Certificates

Civil Engineering Technician I– 1502013019
(Offered at BSC, BLC)

General Education

Written Communication OR.................................................. 3
Oral Communications OR................................................... (3)
Humanities/Heritage ....................................................... (3)
MAT 116 Technical Mathematics OR.................................... 3
Higher Level Quantitative Reasoning course .................. (3)
Subtotal 6

Technical Core

CAD 100 Introduction to Computer Aided Design ........... 3
CAD 102 Drafting Fundamentals ....................................... 4
SMT 110 Principles of Surveying ..................................... 3

Subtotal 10
Total 16
Community Dental Health Coordinator

This program is designed for dental hygienists or dental assistants who are interested in serving as case managers to assist patients as they navigate the dental health system, overcome obstacles to care or follow through with care as recommended by the dentist of record. Graduates may work in a variety of settings with a focused skill set pertaining to oral health, case management and motivational interviewing. Employment settings include local dental offices, government agencies, federally qualified health centers, health care facilities or other non-profit agencies. CDHCs provide oral health education, prevention intervention and dental care as specified by state practice acts.

Certificate
Community Dental Health Coordinator – 5122083009
(Offered at BSC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDH 110</td>
<td>3</td>
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<td>CDH 115</td>
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<td>CDH 125</td>
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<td>CDH 220</td>
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<td>CDH 245</td>
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<tr>
<td>Total</td>
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</tbody>
</table>

Community Health Worker

The technical Certificate will prepare students for a scope of practice for community health workers highlighting six central roles of: communication, organizational and community outreach, advocacy, health coaching, organization, and legal/ethics of the profession. The program will consist of on-line and in-person lab experience.

Certificate
Community Health Worker – 5115043010
(Offered at HZC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>CHW 101</td>
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<tr>
<td>CHW 102</td>
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<tr>
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<td>CHW 104</td>
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<td>CHW 105</td>
<td>1</td>
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<td>CHW 106</td>
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</table>

Computer Aided Drafting and Design

A computer aided drafter and designer is a technical specialist with broad-based skills for architectural, civil, mechanical, and manufacturing fields. In this program, the students are taught manual drafting techniques, 2D and 3D CAD, and 3D printing. Specific skills taught include, but are not limited to, lettering, geometric construction, orthographic projections, dimensioning and tolerancing, and related technical processes. These skills are required to transform specifications and instructions of architects, designers, and engineers into complete and precise drawings. The drafter is a skilled technician with a thorough understanding of the graphic language and is an indispensable contributor to the engineering design team.

Progression in the Computer Aided Drafting and Design program is contingent upon achievement of a grade of “C” or greater in each technical and mathematics course with maintenance of a 2.0 cumulative grade point average or above (on a 4 scale).

Certificate
Computer Aided Drafting and Design - 1513017029
(Offered at BLC, BSC, ELC)

General Education:

<table>
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<th>Units</th>
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<tr>
<td>Natural Sciences</td>
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</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td>3</td>
</tr>
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<td>Heritage/Humanities</td>
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Technical Core:

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<td>CAD 102</td>
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<td>CAD 112</td>
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<tr>
<td>CAD 200</td>
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Total Credits 60-62

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.)

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<thead>
<tr>
<th>Course</th>
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<tbody>
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<td>CAD 120</td>
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<tr>
<td>CAD 150</td>
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<td>CAD 212</td>
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<td>CAD 216</td>
<td>4</td>
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<tr>
<td>CAD 220</td>
<td>4</td>
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<td>CAD 222</td>
<td>4</td>
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<td>CAD 230</td>
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<td>CAD 240</td>
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<td>CAD 252</td>
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<tr>
<td>DPT 102</td>
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<td>ACH 110</td>
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<td>BRX 120</td>
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<td>BRX 220</td>
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**Diploma**

**Computer Aided Drafting and Design - 1513014049**  
*(Offered at ASC, BLC, BSC, ELC, HZC, HPC, JFC, MYC, SEC, WKC)*  
Available Completely Online

**General Education:**

<table>
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<tr>
<th>Area 1: Written Communication, Oral Communications or Humanities/Heritage</th>
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<tbody>
<tr>
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**Subtotal** 6

**Technical Core:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD 100</td>
<td>Introduction to Computer Aided Design</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>
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<td>CAD 201</td>
<td>Parametric Modeling</td>
<td>4</td>
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<tr>
<td>CAD 298</td>
<td>Practicum OR</td>
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</table>

Technical Electives: (This list is not all inclusive, other courses may be taken as approved by the program coordinator such as courses with prefix ACH, BRX, CAR, SMT, and PLW.)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</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 130</td>
<td>Descriptive Geometry</td>
<td>4</td>
</tr>
<tr>
<td>CAD 150</td>
<td>Programming in CAD</td>
<td>4</td>
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<tr>
<td>CAD 212</td>
<td>Industrial Drafting Processes</td>
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</tr>
<tr>
<td>CAD 216</td>
<td>Building Information Modeling</td>
<td>4</td>
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<tr>
<td>CAD 222</td>
<td>Mechanical Design</td>
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<tr>
<td>CAD 220</td>
<td>Architectural Design</td>
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<tr>
<td>CAD 230</td>
<td>Construction Techniques</td>
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<td>CAD 240</td>
<td>Advanced Dimensioning and Measurement</td>
<td>4</td>
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<tr>
<td>CAD 252</td>
<td>Commercial Detailing</td>
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<tr>
<td>CAD 262</td>
<td>Working Drawings</td>
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<td>CAD 292</td>
<td>Industrial Applications</td>
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<td>CAD 293</td>
<td>Special Problems</td>
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</tr>
<tr>
<td>DPT 100</td>
<td>Introduction to 3D Printing Technology</td>
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</tr>
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<td>DPT 102</td>
<td>3D Printing Technology Fundamentals</td>
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<tr>
<td>ACH 110</td>
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<td>1</td>
</tr>
<tr>
<td>ACH 160</td>
<td>Building Materials and Construction I</td>
<td>3</td>
</tr>
<tr>
<td>ACH 291</td>
<td>Construction Management</td>
<td>4</td>
</tr>
<tr>
<td>BRX 120</td>
<td>Basic Blueprint Reading</td>
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<td>Blueprint Reading for Construction</td>
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</table>

**Total Credit** 48-50

**Technical Electives**

*(Choose from the Technical Electives List)* 22

**Total Credits** 6-44

**Certificates**

**Architectural Designer – 1513013109**  
*(Offered at BLC, ELC, HZC)*

<table>
<thead>
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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BRX 120</td>
<td>Basic Blueprint Reading OR</td>
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</tr>
<tr>
<td>BRX 220</td>
<td>Construction Blueprint Reading OR</td>
<td>3</td>
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<tr>
<td>CAD 102</td>
<td>Drafting Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>CAD 100</td>
<td>Introduction to Computer Aided Design</td>
<td>4</td>
</tr>
<tr>
<td>CAD 120</td>
<td>Introduction to Architecture</td>
<td>4</td>
</tr>
<tr>
<td>CAD 220</td>
<td>Architectural Design OR</td>
<td>4</td>
</tr>
<tr>
<td>CAD 216</td>
<td>Building Information Modeling</td>
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<tr>
<td>CAD 230</td>
<td>Construction Techniques</td>
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**Total Credits** 18-19

**Building Information Modeling – 1513013119**  
*(Offered at BLC, ELC, HZC)*

<table>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
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<td>Survey of the Architectural Profession</td>
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</tr>
<tr>
<td>ACH 160</td>
<td>Building Materials and Construction I OR</td>
<td>3</td>
</tr>
<tr>
<td>ACH 291</td>
<td>Construction Management</td>
<td>4</td>
</tr>
<tr>
<td>CAD 120</td>
<td>Introduction to Architecture</td>
<td>4</td>
</tr>
<tr>
<td>CAD 216</td>
<td>Building Information Modeling</td>
<td>4</td>
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<tr>
<td>CAD 230</td>
<td>Construction Techniques</td>
<td>4</td>
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**Total Credits** 16

**Civil Drafter - 1513013049**  
*(Offered at ASC, BLC, BSC, HZC, SEC)*

**General Education:**

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<th>Course Title</th>
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<td>Quantitative Reasoning (MAT 105 excluded)</td>
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**Subtotal** 3

**Technical Core:**

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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CAD 100</td>
<td>Introduction to Computer Aided Design</td>
<td>3</td>
</tr>
<tr>
<td>CAD 102</td>
<td>Drafting Fundamentals</td>
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<tr>
<td>CAD 112</td>
<td>Engineering Graphics</td>
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**Subtotal** 11

**Surveying Core:**

*Choose 9-12 hours from the following courses:

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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</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>
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<td>SMT 110</td>
<td>Principles of Surveying</td>
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</tr>
<tr>
<td>SMT 130</td>
<td>Land Surveying Graphics</td>
<td>3</td>
</tr>
<tr>
<td>SMT 160</td>
<td>Construction Surveying</td>
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</tr>
<tr>
<td>SMT 210</td>
<td>Advanced Surveying Measurement</td>
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</tr>
<tr>
<td>SMT 220</td>
<td>Surveying Lab</td>
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<td>SMT 230</td>
<td>Land Boundary Location</td>
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<td>SMT 250</td>
<td>Mine Surveying</td>
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**Subtotal** 9-12

**Total Credits** 23-26

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

**General Education:**

<table>
<thead>
<tr>
<th>Course Title</th>
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**Subtotal** 6

**Technical Core:**

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<td>Introduction to Computer Aided Design</td>
<td>3</td>
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<tr>
<td>CAD 102</td>
<td>Drafting Fundamentals</td>
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<td>CAD 112</td>
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<tr>
<td>CAD 200</td>
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**Subtotal** 22-23

**Total Credits** 28-29

**Detailer - 1513013089**  
*(Offered at ASC, BLC, BSC, ELC, HZC, JFC, MYC, SEC)*  
Available Completely Online

**General Education:**

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**Subtotal** 6
Technical Core:

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<th>Credits</th>
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<tbody>
<tr>
<td>CAD 100</td>
<td>Introduction to Computer Aided Design</td>
<td>3</td>
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<td>CAD 102</td>
<td>Drafting Fundamentals</td>
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<td>CAD 112</td>
<td>Engineering Graphics</td>
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Drafter Assistant – 1513013079  
(Offered at ASC, BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, WKC)  
Available Completely Online

General Education:

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<th>Title</th>
<th>Credits</th>
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<tbody>
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<td>Introduction to Computer Aided Design</td>
<td>3</td>
</tr>
<tr>
<td>CAD 102</td>
<td>Drafting Fundamentals</td>
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<td>CAD 112</td>
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<td>Total Credits</td>
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3D Modeler – 1513013099  
(Offered at ASC, BLC, ELC, HPC, HZC, JFC, SEC, WKC)  
Available Completely Online

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CAD 100</td>
<td>Introduction to Computer Aided Design</td>
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<tr>
<td>CAD 200</td>
<td>Intermediate CAD</td>
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<td>16-18</td>
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<td>Total Credits</td>
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</table>

Computer & Information Technologies


This program includes tracks in Business Software and Support, Cloud Computing Technologies, Data Center Technologies, General, Geospatial Technologies, Informatics, Information Security, Internet Technologies, Network Administration, Network Technologies, Programming, and Video Game Design, with a core of courses common to all. The core includes a general education component essential to a collegiate education and a technical component giving students an introduction to information systems, computer applications, program development, system maintenance, networking, security, database design, and collaborative system development. In addition to core courses, students take specialty courses for their selected track.

- Students pursuing a degree or certificate in Computer and Information Technologies may only use CIT courses with a grade of a C or higher or Pass in pass/fail courses to fulfill CIT course prerequisites and graduation requirements.
- The Computer & Information Technologies department does not accept non-General Education courses older than 5 years from returning or transfer students without consent from the local program coordinator.
- Students may not use one course to fulfill multiple requirements.
- The Business Software and Support Track emphasizes several aspects of application software. It includes such productivity applications as: word processing, spreadsheets, database management, presentation, geographic information systems, website development/maintenance, and help desk tracking systems. Completion of this track will prepare students to work with computer-based systems in business and industry.

Business Software Specialist - Designed to train students to operate a wide variety of software packages and to assist businesses in developing and maintain databases, producing financial statements, and developing applications using various software packages.

- Computer Applications Support - Provides an in-depth knowledge of application software, computer system configurations, Help Desk Tools/Software, end-user documentation, user training, and other user support skills.
- Software Support - Provides an in-depth knowledge of application software, computer system configurations, and data driven websites.

The Cloud Computing Technologies Track covers the fundamentals of building IT infrastructure using cloud-based technologies. The track is designed to teach future cloud technologists how to optimize the use of cloud-based services and how these services fit into cloud-based solutions. Because architectural solutions can differ depending on industry, type of applications, and size of business, this track emphasizes best practices for cloud technologies, and it recommends various design patterns to help students think through the process of architecting optimal IT cloud-based solutions.

Within the Cloud Computing Technologies Track there is an Amazon Web Services (AWS) course sequence that is designed to prepare students to pass the AWS Cloud Practitioner Certification Exam and the AWS Cloud Architect Certification Exam.

The Cloud Computing Technologies track also includes a course sequence in Data Center Technology. This track provides experience in areas such as virtualization, storage, security, high availability and adherence to standards in provisioning of computing resources that meet business and organizational needs. The Data Center sequence can be used to prepare students for entry level positions in organizations that design and manage data centers.

The General Track will give students the basic concepts in computer hardware and software, databases, programming, security, networking, and upon completion of the track, the graduate will be qualified to take industry designed and recognized certification examinations. This degree plan will offer maximum flexibility by providing students with a range of options for program specialization with the knowledge and skills sufficient to be employable and successful in a variety of professional computing areas. Possible employment opportunities may include but are not limited to areas such as cloud computing, virtualization, programming and application development, network and system administration, and other new and innovative developments in Information Technology in for both small and large organizations.

The Geospatial Technologies Track (GST) is a rapidly growing and evolving field which enables users of location based data the ability to make informed decisions, utilizing a large array of sensors and demographics. GST utilizes both time and place as analysis factors and is recognized by the U.S. Department of Labor (DoL) as a high growth, high wage, green industry with a bright outlook. The curriculum is based upon national standards, including the DoL Geospatial Technology Competency Model (GTCM) and the NSF funded GeoTech Center model courses. Completers of the Associate of Applied Science degree 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 Programming Track prepares students to design, develop, and maintain computer programs written in current and emerging programming languages. With tracks in Information Systems and Software Development, students successfully completing this track are prepared for entry-level positions in computer programming.

The Information Systems track is designed with an emphasis on programming for a business environment. Students completing the Information Systems track study basic business concepts, one programming language at an advanced level, and two programming languages at an introductory level.

The Software Development track emphasizes computer software development. Students completing the Software Development track study a minimum of two computer programming languages at an advanced level and additional programming language(s) at an introductory level. Flexibility within this track allows students to focus on a specific area of software development by means of the programming languages they choose to study (object-oriented programming, database programming, game development, etc.).

The Video Game Design Track prepares students to design, develop, and market digital games and simulations. This track focuses on game development with an emphasis on game programming.

A+ Prep Certificate

The A+ Prep Certificate offers students the opportunity to earn a credential demonstrating basic competency in the area of computer hardware and software. The certificate consists of one course that prepares students for the CompTIA A+ certification exams which are recognized by the computer industry around the world. The certificate gives those who are unable, or do not need, to complete a degree a way of demonstrating their level of proficiency.

AWS Cloud Architecting Certificate

The AWS Cloud Architecting Certificate covers the fundamentals of building IT infrastructure on Amazon Web Services, or AWS. The track is designed to teach future solutions architects how to optimize the use of the AWS Cloud by understanding AWS services and how these services fit into cloud-based solutions. Because architectural solutions can differ depending on industry, type of applications, and size of business, this track emphasizes best practices for the AWS Cloud, and it recommends various design patterns to help students think through the process of architecting optimal IT solutions on AWS.

Cisco Networking Associate Certificate

The Cisco Networking Associate Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of computer networking. This certificate consists of the core skills that students need to effectively build and maintain computer networks. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program. The Cisco Networking Associate Certificate prepares students for the CCNA exam which is recognized by the computer industry around the world.

Cisco Networking Enhanced Certificate

The Cisco Networking Enhanced Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of computer networking. This certificate consists of the core skills that students need to effectively build and maintain computer networks. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program. The Cisco Networking Associate Certificate prepares students for the CCNA and Net+ exams which are recognized by the computer industry around the world.

CIT Fundamentals Certificate

The CIT Fundamentals Certificate offers students the opportunity to earn a credential demonstrating basic competency in the area of computers. The certificate consists of a natural progression of classes that are required for the Associate in Applied Science degree in Computer & Information Technologies. It gives those who are unable, or do not need, to complete a degree a way of demonstrating their level of computer proficiency.

Application Support Technician Certificate

The Application Support Technician Certificate offers students the opportunity to earn a credential demonstrating application 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 application support technician skills and for new students to show progress in the CIT program.

Computer Tech Basic Certificate

The Computer Tech Basic Certificate offers students the opportunity to earn a credential demonstrating basic competency in the area of computer information technology. The certificate consists of a natural
progression of classes that are required for the Associate in Applied Science degree in Computer & Information Technologies. It gives those who are unable, or do not need, to complete a degree a way of demonstrating their level of computer proficiency. The Computer Tech Basic Certificate prepares students for the CompTIA A+ and Net+ certification exams which are recognized by the computer industry around the world.

Computer Technician Certificate
The Computer Technician Certificate offers students the opportunity to earn a credential demonstrating computer technician competencies. This certificate consists of the core skills that students need to achieve the industry A+ and Security+ certifications. In addition, this certificate will provide a way for professionals currently in the industry to update their technician skills and for new students to show progress in the CIT program.

Digital Forensics Specialist Certificate
The Digital Forensics Specialist Certificate offers students the opportunity to earn a credential demonstrating skills in digital forensics. Digital forensics covers the retrieval and investigation of material found in digital devices. Digital material refers to all methods of electronic data storage and transfer devices, including computers, laptops, cell phones, tablets, gaming consoles, and portable storage devices. The goal of digital forensics is to ensure the integrity of that digital material while thoroughly examining it. Digital forensics requires in-depth knowledge of the understanding of the legal as well as the technical aspects of cybercrime. This certificate consists of the core skills that students need to demonstrate basic digital forensic skills. It provides an introduction to information security and incident response, forensic preparation and data recovery and analysis. The goals of this certificate focus on the principles and techniques used to identify, search, seize and analyze digital media, and to conduct cyber investigations. In addition, this certificate will provide a way for professionals currently in the industry to update their digital forensic skills and for new students to show progress in the CIT program.

Informatics Advanced Certificate
The Informatics Advanced Certificate builds on the Informatics Generalist certificate for those in the workforce looking to gain deeper knowledge about informatics structure and analysis. It will prepare them to work with collaboration software, such as SharePoint, will work with database programming and mining.

Informatics Generalist Certificate
The Informatics Generalist Certificate is for students in the workforce looking to gain knowledge about informatics. It will prepare them to use and understand existing software and will introduce them to data analysis and how it can be used.

Informatics Programming Certificate
The Informatics Programming Certificate offers students the opportunity to earn a credential demonstrating informatics programming competencies. It consists of core abilities that students need to design well-structured databases and effectively develop secure applications using an object-oriented programming language to interface with databases.

Information Security Specialist Certificate
The Information Security Specialist Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of information security. This certificate consists of the core skills that students need to effectively build and maintain information security systems. In addition, this certificate will provide a way for professionals currently in the industry to update their information security skills and for new students to show progress in the CIT program.

Microsoft Enterprise Administrator Certificate
The Microsoft Enterprise Administrator certificate offers students the opportunity to earn a credential demonstrating skills in the administration and design of Microsoft enterprise networks. This certificate consists of the core skills that students need to effectively plan, build, and maintain a Microsoft network. In addition, this certificate will provide a way for professionals currently in the industry to update their Microsoft network administrator skills.

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.

Mobile Apps Developer Certificate
The Mobile Apps Developer 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.

Net+ Prep Certificate
The Net+ Prep Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of computer networking. This certificate consists of the core skills that students need to effectively 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+ Prep Certificate prepares students for the CompTIA Net+ 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.

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.
Programmer Certificate
The Programmer 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.

Security+ Prep Certificate
The Security+ Prep Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of information security. This certificate consists of the core skills that students need to effectively build and maintain information security systems. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program. The Security+ Prep Certificate prepares students for the CompTIA Security+ exam which is recognized by the computer industry around the world.

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

Video Game Designer Certificate
The Video Game Designer Certificate prepares students to design, develop, and market digital games and simulations.

Web Server Administration Certificate
The Web Server 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 maintaining web sites through network and web server administration. In addition, this certificate will provide a way for professionals currently in the industry to update their web administration skills and for new students to show progress in the CIT program.

Web Programmer Certificate
The Web Programmer 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 maintaining 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.
Cloud Computing Technologies Track – 110101716
*(Offered at ASC, BLC, ELC, GTW, JFC, SMC, WKC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CIT 201</td>
<td>Information Storage Management</td>
<td>3</td>
</tr>
<tr>
<td>CIT 217</td>
<td>Linux/Unix Administration</td>
<td>3</td>
</tr>
<tr>
<td>CIT 262</td>
<td>MS Server Infrastructure</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Completion of a Cloud Computing Technologies Track Course Sequence in Amazon Web Services OR Data Center Technologies</td>
<td>12-13</td>
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</table>

Data Center Technologies

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIT 206</td>
<td>Amazon Web Services Practitioner</td>
<td>3</td>
</tr>
<tr>
<td>CIT 207</td>
<td>Amazon Web Services Architecting</td>
<td>3</td>
</tr>
<tr>
<td>CIT 167</td>
<td>Switching &amp; Routing Essentials</td>
<td>4</td>
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Amazon Web Services

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<th>Credits</th>
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<tr>
<td>CIT 257</td>
<td>Amazon Web Services Practitioner</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Approved Networking Elective</td>
<td>3-4</td>
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Informatics Track Course Sequences:

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General Track – 110101720
*(Offered at ASC, ELC, HEC, HPC, HZC, JFC, MDC, OWC, SKY, WKC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 258</td>
<td>Internet Technologies Seminar</td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td>CIT Technical Electives*</td>
<td>21-25</td>
</tr>
<tr>
<td></td>
<td><strong>Track Subtotal</strong></td>
<td><strong>21-25</strong></td>
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Total

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<tr>
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<tbody>
<tr>
<td></td>
<td>60-64</td>
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</table>

*At least 12 credit hours must be at the 200 level, or other courses approved by the Program Coordinator. Students MUST meet with the Program Coordinator or designee and complete a study plan PRIOR to beginning the General Track.

Geospatial Technologies Track – 110101718
*(Offered at BLC, JFC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CIT 125</td>
<td>Introduction to Digital Maps</td>
<td>3</td>
</tr>
<tr>
<td>CIT 225</td>
<td>GIS Software Tools</td>
<td>3</td>
</tr>
<tr>
<td>GIS 145</td>
<td>Remote Sensing</td>
<td>3</td>
</tr>
<tr>
<td>GIS 255</td>
<td>Geospatial Programming</td>
<td>3</td>
</tr>
<tr>
<td>GIS 260</td>
<td>GIS Web Mapping</td>
<td>3</td>
</tr>
<tr>
<td>CIT 229</td>
<td>Selected Topics in GIS</td>
<td>3</td>
</tr>
<tr>
<td>CIT 290</td>
<td>Internship</td>
<td>3</td>
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<tr>
<td></td>
<td><strong>Track Subtotal</strong></td>
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Total

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Informatics Track – 110101719
*(Offered at BLC, WKC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ENG 102</td>
<td>Writing II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Oral Communications Course</td>
<td>3</td>
</tr>
<tr>
<td>CIT 150</td>
<td>Internet Technologies OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 155</td>
<td>Web Page Development OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 157</td>
<td>Web Site Design and Production</td>
<td>3</td>
</tr>
<tr>
<td>CIT 249</td>
<td>Java II OR</td>
<td>3</td>
</tr>
<tr>
<td>INF 260</td>
<td>Object-Oriented Programming I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Completion of an Informatics Track Course Sequence In Business OR Data Science OR Informatics Programming</td>
<td>9-11</td>
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</table>

Information Security Track - 110101712
*(Offered at ASC, BSC, BLC, EL, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIT 182</td>
<td>Perimeter Defense</td>
<td>3</td>
</tr>
<tr>
<td>CIT 184</td>
<td>Attacks and Exploits</td>
<td>3</td>
</tr>
<tr>
<td>CIT 217</td>
<td>UNIX/Linux Administration</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Approved Network Elective Courses</td>
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<tr>
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<td>Approved Security Elective Course</td>
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<td>Approved CIT Technical Course(s)</td>
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Total

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Internet Technologies Track - 110101710
*(Offered at ASC, BLC, BSC, ELC, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>CIT 150</td>
<td>Internet Technologies</td>
<td>3</td>
</tr>
<tr>
<td>CIT 155</td>
<td>Web Page Development</td>
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</tr>
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<td>CIT 157</td>
<td>Web Site Design and Production</td>
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<tr>
<td></td>
<td><strong>Subtotal</strong></td>
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Complete two of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CIT 257</td>
<td>Applied Internet Technologies OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 258</td>
<td>Internet Technologies Seminar</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Completion of an Internet Technologies Track Course Sequence in Web Programming OR Web Administration</td>
<td>12</td>
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Total

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<td>60</td>
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</table>
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 261 MS Active Directory Services AND …………………….. 3
CIT 262 MS Server Infrastructure …………………………………… 3
CIT 264 Microsoft Server Management ……………………………… 3

Sequence Subtotal 12

Network Administration Track - 110101708

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

Network Administration Track Course Sequence ………… 12-14

Sequence in:
- Microsoft Windows Administration or
- Cisco Network Associate
- Approved CIT Technical Courses …………………………………… 9

Network Administration Track Course Sequences:

Microsoft Windows Administration Course Sequence

CIT 213 Microsoft Client Configuration …………………………………… 3
CIT 261 MS Active Directory Services …………………………………… 3
CIT 262 MS Server Infrastructure …………………………………… 3
CIT 264 Microsoft Server Management ……………………………… 3

Subtotal 12

Cisco Networking Associate Course Sequence

CIT 167 Switching & Routing Essentials …………………………………… 4
CIT 212 Connecting and Scaling Networks …………………………………… 4
CIT 217 UNIX/Linux Administration …………………………………… 3
CIT 267 Approved CIT Elective …………………………………………… 3

Subtotal 14

Total 21-23

Network Technologies Track - 110101713

(Offered at ASC, BLC, ELC, JFC, MDC, MYC,)

CIT 219 Internet Protocols …………………………………… 3
CIT 288 Network Security …………………………………………… 3

Select 15 hours from the courses listed below. At least 8 hours must be from a single platform and at least 4 hours must be from a different platform: …………………………………… 15

Approved Network Technologies Course Sequences *

Microsoft Platform

CIT 213 Microsoft Client Configuration …………………………………… 3
CIT 261 MS Active Directory Services …………………………………… 3
CIT 262 MS Server Infrastructure …………………………………… 3
CIT 264 Microsoft Server Management ……………………………… 3
CIT 285 Microsoft OS Security …………………………………………… 3

Other Microsoft networking courses as approved by local Program coordinator

Cisco Platform

CIT 167 Switching & Routing Essentials …………………………………… 4
CIT 209 Connecting and Scaling Networks …………………………………… 4
CIT 212 Connecting & Scaling Networks …………………………………… 4
CIT 287 Cisco OS Security …………………………………………… 3

UNIX/Linux Platform

CIT 217 UNIX/Linux Administration …………………………………… 3
CIT 218 UNIX/Linux File System …………………………………… 3
CIT 255 Web Server Administration …………………………………… 3
CIT 267 UNIX/Linux Network Services …………………………………… 3
CIT 286 UNIX/Linux OS Security …………………………………………… 3

Data Center Platform

CIT 201 Information Storage Management …………………………………… 3
CIT 203 Introduction to Virtualization …………………………………… 3
CIT 204 VMWare Optimize and Scale …………………………………… 3
CIT 205 Cloud Infrastructure and Services …………………………………… 3
CIT 206 Amazon Web Services Practitioner …………………………………… 3
CIT 207 Amazon Web Services Architecting …………………………………… 3

Security Platform

CIT 182 Perimeter Defense …………………………………………… 3
CIT 184 Attacks and Exploits …………………………………………… 3

Total 21

Programming Track - 110101709

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

Approved Level II Programming Language …………………………… 3
Approved Level I, II, or III Programming Language ……………………… 3
Approved CIT Technical Course(s) …………………………………… 3
Completion of a Programming Track Course Sequence in: … 12

Information Systems OR
Programming Software Development

Programming Track Course Sequences:

Information Systems

CIT 171 SQL I …………………………………………… 3
CIT 267 Approved CIT Technical Courses …………………………………… 3
CIT 150 Approved Management or Business Course ……………………… 3
CIT 155 Approved Business Course …………………………………… 3

Sequence Subtotal 12

Programming Software Development

CIT 150 Approved Management or Business Course ……………………… 3
CIT 155 Approved Business Course …………………………………… 3
CIT 253 Data Driven Web Pages: Topic …………………………………… 3

Sequence Subtotal 12

Total 21

Video Game Design Track - 110101715

(Offered at BLC, MYC)

CIT/IMD 124 Introduction to Game Development …………………………………… 3
CIT/IMD 274 Seminar in Game Development …………………………………… 3
CIT/IMD 221 Computer Graphics …………………………………… 3
CIT/IMD 222 3D Modelling …………………………………… 3
CIT/IMD 223 3D Animation …………………………………… 3
CIT/IMD 273 Game Production …………………………………… 3
CIT/IMD 274 Video Game Design Elective …………………………………… 3

Total 21

Program coordinator

Total 60-63
### Course Choice Lists

#### Approved Business Courses*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ACC 201</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>IFM 111</td>
<td>Client-Side Informatics Software</td>
<td>3</td>
</tr>
<tr>
<td>IFM 128</td>
<td>Principles of Informatics</td>
<td>3</td>
</tr>
<tr>
<td>IFM 211</td>
<td>Collaboration Software</td>
<td>3</td>
</tr>
<tr>
<td>IFM 215</td>
<td>Information System Analysis</td>
<td>3</td>
</tr>
<tr>
<td>IFM 225</td>
<td>Advanced Informatics</td>
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*Any business or informatics course approved by Program Coordinator.

#### Approved Management Courses*

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>BAS 200</td>
<td>Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 274</td>
<td>Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 287</td>
<td>Supervisory Management</td>
<td>3</td>
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<tr>
<td>BAS 288</td>
<td>Personal and Organizational Leadership</td>
<td>3</td>
</tr>
<tr>
<td>MFG 256</td>
<td>Production Management</td>
<td>3</td>
</tr>
<tr>
<td>OST 275</td>
<td>Office Management</td>
<td>3</td>
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<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
</tr>
<tr>
<td>BAS 201</td>
<td>Customer Service Improvement Skills</td>
<td>3</td>
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</table>

*Any management course approved by Program Coordinator.

#### Approved Level I Networking Courses*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIT 160</td>
<td>Intro to Networking Concepts</td>
<td>4</td>
</tr>
<tr>
<td>CIT 161</td>
<td>Introduction to Networks</td>
<td>4</td>
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</table>

#### Approved Network Elective Courses*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 167</td>
<td>Switching &amp; Routing 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 &amp; Scaling Networks</td>
<td>4</td>
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<tr>
<td>CIT 218</td>
<td>UNIX/Linux Net Infrastructure</td>
<td>4</td>
</tr>
<tr>
<td>CIT 219</td>
<td>Internet Protocols</td>
<td>3</td>
</tr>
<tr>
<td>CIT 260</td>
<td>Network Hardware Installation and Troubleshooting</td>
<td>3</td>
</tr>
<tr>
<td>CIT 261</td>
<td>MS Active Directory Services</td>
<td>3</td>
</tr>
<tr>
<td>CIT 262</td>
<td>MS Server Infrastructure</td>
<td>3</td>
</tr>
<tr>
<td>CIT 263</td>
<td>Advanced Topics in Microsoft Windows: (Topics)</td>
<td>3</td>
</tr>
<tr>
<td>CIT 264</td>
<td>Microsoft Server Management</td>
<td>3</td>
</tr>
<tr>
<td>CIT 267</td>
<td>UNIX/Linux Network Services</td>
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*Or other Microsoft networking courses as approved by the CIT Program Coordinator.

#### Approved Security Elective Courses*

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIT 284</td>
<td>Computer Forensics</td>
<td>3</td>
</tr>
<tr>
<td>CIT 285</td>
<td>Windows OS Security</td>
<td>3</td>
</tr>
<tr>
<td>CIT 286</td>
<td>UNIX/Linux OS Security</td>
<td>3</td>
</tr>
<tr>
<td>CIT 287</td>
<td>Cisco OS Security</td>
<td>3</td>
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<tr>
<td>CIT 288</td>
<td>Network Security</td>
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#### Approved Level I Programming Language Courses*

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIT 140</td>
<td>JavaScript I</td>
<td>3</td>
</tr>
<tr>
<td>CIT 141</td>
<td>PHP I</td>
<td>3</td>
</tr>
<tr>
<td>CIT 142</td>
<td>C++ I</td>
<td>3</td>
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<tr>
<td>CIT 143</td>
<td>C# I</td>
<td>3</td>
</tr>
<tr>
<td>CIT 144</td>
<td>Python I</td>
<td>3</td>
</tr>
<tr>
<td>CIT 145</td>
<td>Perl I</td>
<td>3</td>
</tr>
<tr>
<td>CIT 146</td>
<td>Swift I</td>
<td>3</td>
</tr>
<tr>
<td>CIT 147</td>
<td>Programming I: Language</td>
<td>3</td>
</tr>
<tr>
<td>CIT 148</td>
<td>Visual Basic I</td>
<td>3</td>
</tr>
<tr>
<td>CIT 149</td>
<td>Java I</td>
<td>3</td>
</tr>
<tr>
<td>CIT 171</td>
<td>SQL I</td>
<td>3</td>
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*University Level I programming languages as approved by local Program Coordinator.

#### Approved Level II Programming Language Courses*

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIT 237</td>
<td>iOS Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIT 238</td>
<td>Android Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIT 241</td>
<td>PHP II</td>
<td>3</td>
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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>
<td>3</td>
</tr>
<tr>
<td>CIT 244</td>
<td>Python II</td>
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#### Approved Level III Programming Language Courses*

<table>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIT 247</td>
<td>Programming II: Language</td>
<td>3</td>
</tr>
<tr>
<td>CIT 248</td>
<td>Visual Basic II</td>
<td>3</td>
</tr>
<tr>
<td>CIT 249</td>
<td>Java II</td>
<td>3</td>
</tr>
<tr>
<td>CIT 271</td>
<td>SQL II</td>
<td>3</td>
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*University Level III programming languages as approved by local Program Coordinator.

#### Approved Level I Web Programming Language Courses*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIT 141</td>
<td>PHP I</td>
<td>3</td>
</tr>
<tr>
<td>CIT 144</td>
<td>Python I</td>
<td>3</td>
</tr>
<tr>
<td>CIT 148</td>
<td>Visual Basic I</td>
<td>3</td>
</tr>
<tr>
<td>CIT 149</td>
<td>Java I</td>
<td>3</td>
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#### Approved Level II Web Programming Language Courses*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIT 241</td>
<td>PHP II</td>
<td>3</td>
</tr>
<tr>
<td>CIT 244</td>
<td>Python II</td>
<td>3</td>
</tr>
<tr>
<td>CIT 248</td>
<td>Visual Basic II</td>
<td>3</td>
</tr>
<tr>
<td>CIT 249</td>
<td>Java II</td>
<td>3</td>
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#### Approved Social Media Courses*

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIT 151</td>
<td>Social Media I</td>
<td>3</td>
</tr>
<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>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CIT 238</td>
<td>Android Programming</td>
<td>3</td>
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#### Approved CIT Technical Courses*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIT 167</td>
<td>Switching &amp; Routing Essentials</td>
<td>4</td>
</tr>
<tr>
<td>CIT 201</td>
<td>Information Storage Management</td>
<td>3</td>
</tr>
<tr>
<td>CIT 206</td>
<td>Amazon Web Services Practitioner</td>
<td>3</td>
</tr>
<tr>
<td>CIT 207</td>
<td>Amazon Web Services Architecting</td>
<td>3</td>
</tr>
<tr>
<td>CIT 217</td>
<td>UNIX/Linux Administration</td>
<td>3</td>
</tr>
<tr>
<td>CIT 262</td>
<td>MS Server Infrastructure</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: Students may not use one course to fulfill multiple requirements.

Students may choose CIT 290 or COE 199 for a maximum of 3 credit hours.

### Certificates

#### A+ Prep - 1101013529

*(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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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIT 111</td>
<td>Computer Hardware and Software</td>
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**Total** 4

#### AWS Cloud Architecting – 1101013569

*(Offered at ASC, BLC, ELC, GTW, JFC, SMC, WKC)*

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>CIT 167</td>
<td>Switching &amp; Routing Essentials</td>
<td>4</td>
</tr>
<tr>
<td>CIT 201</td>
<td>Information Storage Management</td>
<td>3</td>
</tr>
<tr>
<td>CIT 206</td>
<td>Amazon Web Services Practitioner</td>
<td>3</td>
</tr>
<tr>
<td>CIT 207</td>
<td>Amazon Web Services Architecting</td>
<td>3</td>
</tr>
<tr>
<td>CIT 217</td>
<td>UNIX/Linux Administration</td>
<td>3</td>
</tr>
<tr>
<td>CIT 262</td>
<td>MS Server Infrastructure</td>
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**Total** 19

#### Cisco Networking - 1101013359

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CIT 161</td>
<td>Introduction to Networks</td>
<td>4</td>
</tr>
<tr>
<td>CIT 212</td>
<td>Connecting &amp; Scaling Networks</td>
<td>4</td>
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</table>

**Total** 18

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.
Cisco Networking Enhanced - 1101013379
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 161 Introduction to Networks</td>
<td>4</td>
</tr>
<tr>
<td>CIT 167 Switching &amp; Routing Essentials</td>
<td>4</td>
</tr>
<tr>
<td>CIT 212 Connecting &amp; Scaling Networks</td>
<td>4</td>
</tr>
<tr>
<td>CIT 217 UNIX/Linux Administration</td>
<td>3</td>
</tr>
<tr>
<td>CIT 180 Security Fundamentals</td>
<td>3</td>
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<tr>
<td>CIT 144 Python I</td>
<td>3</td>
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<td><strong>Total</strong></td>
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CIT Fundamentals - 1101013309
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CIT 105 Introduction to Computing</td>
<td>3</td>
</tr>
<tr>
<td>CIT 111 Computer Hardware and Software</td>
<td>4</td>
</tr>
<tr>
<td>CIT 120 Computational Thinking</td>
<td>3</td>
</tr>
<tr>
<td>CIT 170 Database Design Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>CIT 180 Security Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>Approved Level I Networking Course</td>
<td>3</td>
</tr>
<tr>
<td>Approved Level I Programming Language</td>
<td>3</td>
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<tr>
<td><strong>Total</strong></td>
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Application Support Technician - 1101013329
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 130 Productivity Software</td>
<td>3</td>
</tr>
<tr>
<td>CIT 111 Computer Hardware and Software</td>
<td>4</td>
</tr>
<tr>
<td>CIT 232 Help Desk Operations</td>
<td>3</td>
</tr>
<tr>
<td>CIT 234 Advanced Productivity Software</td>
<td>3</td>
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<tr>
<td>CIT 236 Advanced Data Organization Software</td>
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<td><strong>Total</strong></td>
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Computer Tech Basic - 1101013319
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CIT 105 Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>CIT 111 Computer Hardware and Software</td>
<td>4</td>
</tr>
<tr>
<td>Approved Level I Networking Course</td>
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<td><strong>Total</strong></td>
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Computer Technician - 1101013289
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 105 Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>CIT 111 Computer Hardware and Software</td>
<td>4</td>
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<tr>
<td>Approved Level I Networking Course</td>
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<td><strong>Total</strong></td>
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</table>

Digital Forensics Specialist – 1101013459
(Offered at ASC, BLC, BSC, ELC, HEC, HZC, JFC, MDC, OWC, SEC, SKY, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CIT 105 Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>CIT 111 Computer Hardware and Software</td>
<td>4</td>
</tr>
<tr>
<td>CIT 160 Intro to Networking Concepts OR</td>
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</tr>
<tr>
<td>CIT 161 Introduction to Networks</td>
<td>(4)</td>
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<tr>
<td>CRJ 204 Criminal Investigations</td>
<td>3</td>
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<tr>
<td>CIT 180 Security Fundamentals</td>
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<tr>
<td>CIT 284 Computer Forensics</td>
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Informatics Advanced – 1101013509
(Offered at BLC, WKC)

<table>
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<td>CIT 149 Java I OR</td>
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<tr>
<td>INF 120 Elementary Programming</td>
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<td>INF 211 Collaboration Software</td>
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<td>INF 225 Advanced Informatics</td>
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Informatics Generalist – 1101013499
(Offered at BLC, WKC)

<table>
<thead>
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<th>Course</th>
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</thead>
<tbody>
<tr>
<td>CIT 105 Introduction to Computers</td>
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<tr>
<td>CIT 120 Computational Thinking</td>
<td>3</td>
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<tr>
<td>CIT 130 Productivity Software</td>
<td>3</td>
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<tr>
<td>CIT 170 Database Design Fundamentals OR</td>
<td>3</td>
</tr>
<tr>
<td>INF 282 Introduction to Databases</td>
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<td>INF 215 Information Systems Analysis</td>
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Informatics Programming – 1101013489
(Offered at BLC, GTW, HZC, JFC, SMC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIT 120 Computational Thinking</td>
<td>3</td>
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<tr>
<td>CIT 170 Database Design Fundamentals OR</td>
<td>3</td>
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<tr>
<td>INF 282 Introduction to Databases</td>
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<tr>
<td>Informatics Programming Language Pair</td>
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Informatics Programming Language Pairs

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>INF 120 Elementary Programming AND</td>
<td>3</td>
</tr>
<tr>
<td>INF 260 Object Oriented Programming I OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 149 Java I AND</td>
<td>(3)</td>
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<tr>
<td>CIT 249 Java II</td>
<td>(3)</td>
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<tr>
<td>CS 115 Intro to Computer Programming AND</td>
<td>(3)</td>
</tr>
<tr>
<td>CS 215 Intro Program Design, Instruction, and Problem Solving</td>
<td>(4)</td>
</tr>
<tr>
<td>CIT 142 C++ I AND</td>
<td>(3)</td>
</tr>
<tr>
<td>CIT 242 C++ II</td>
<td>(3)</td>
</tr>
<tr>
<td>CIT 148 Visual Basic I AND</td>
<td>(3)</td>
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<tr>
<td>CIT 248 Visual Basic II</td>
<td>(3)</td>
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<tr>
<td>CIT 143 C# I AND</td>
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<td>CIT 243 C# II</td>
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Information Security Specialist - 1101013339
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIT 180 Security Fundamentals</td>
<td>3</td>
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<tr>
<td>CIT 182 Perimeter Defense</td>
<td>3</td>
</tr>
<tr>
<td>CIT 184 Attacks and Exploits</td>
<td>3</td>
</tr>
<tr>
<td>Approved Security/Network Elective Courses</td>
<td>6</td>
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<tr>
<td><strong>Total</strong></td>
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</tbody>
</table>

Microsoft Enterprise Administrator - 1101013419
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIT 213 Microsoft Client Configuration</td>
<td>3</td>
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<tr>
<td>CIT 261 MS Active Directory Services</td>
<td>3</td>
</tr>
<tr>
<td>CIT 262 MS Server Infrastructure</td>
<td>3</td>
</tr>
<tr>
<td>CIT 264 Microsoft Server Management</td>
<td>3</td>
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</table>
Select 15 hours from the courses listed below. At least 8 hours

CIT 219 Internet Protocols .................................................... 3
CIT 237 iOS Programming .................................................... 3
CIT 146 Swift I .................................................................. 3
CIT 238 Android Programming ............................................... 3
Sequence 1:
CIT 105 Introduction to Computers ......................................... 3
CIT 213 Microsoft Client Configuration ................................... 3
CIT 261 MS Active Directory Services .................................... 3
CIT 262 MS Server Infrastructure ......................................... 3
CIT 264 Microsoft Server Management .................................. 3
Approved CIT Technical Course ........................................... 3
Total 19

Mobile Apps Developer – 1101013559
(Offered at BLC, BSC, ELC, GTW, HEC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC)
CIT 105 Introduction to Computers ......................................... 3
CIT 120 Computational Thinking ............................................. 3
Sequence 1:
CIT 149 Java I ................................................................. 3
CIT 238 Android Programming ............................................... 3
Sequence 2:
CIT 146 Swift I .................................................................. 3
CIT 237 iOS Programming .................................................... 3
Total 18

Net+ Prep - 1101013539
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC)
CIT 160 Intro to Networking Concepts OR ......................... 4
CIT 161 Introduction to Networks .......................................... 4
Total 4

Network Technologies Specialist - 1101013369
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC)
CIT 219 Internet Protocols .................................................... 3
CIT 288 Network Security .................................................... 3
Select 15 hours from the courses listed below. At least 8 hours
Must be from a single platform and at least 4 hours must be
From a different platform. ............................................. 15

Microsoft Platform
CIT 213 Microsoft Client Configuration ................................... 3
CIT 261 MS Active Directory Services .................................... 3
CIT 262 MS Server Infrastructure ......................................... 3
CIT 264 Microsoft Server Management .................................. 3
Other Microsoft networking courses as approved by local
Program coordinator .................................................. 3

Cisco Platform
CIT 167 Switching & Routing Essentials ................................ 4
CIT 212 Connecting & Scaling Networks ............................... 4

UNIX/Linux Platform
CIT 217 UNIX/Linux Administration ..................................... 3
CIT 218 UNIX/Linux Net Infrastructure .................................. 3
CIT 255 Web Server Administration .................................... 3

Data Center Platform
CIT 201 Information Storage Management ............................ 3
CIT 203 Introduction to Virtualization ................................... 3
CIT 204 VMWare Optimize and Scale .................................. 3
CIT 205 Cloud Infrastructure and Services ............................ 3
Total 21

Productivity Software Specialist - 1101013299
(Offered at ASC, BLC, BSC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, WKC)
CIT 105 Introduction to Computers ......................................... 3
CIT 130 Productivity Software .............................................. 3
CIT 234 Advanced Productivity Software .............................. 3
CIT 236 Adv. Data Organization Software ............................. 3
Total 12

Programmer – 1101013429
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)
CIT 120 Computational Thinking ............................................. 3
Approved Level I Programming Language ......................... 3
Approved Level II Programming Language ....................... 3
Approved Level I, II, or III Programming Language .......... 3
Total 12

Security+ Prep - 1101013549
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY)
CIT 180 Security Fundamentals ............................................. 3
Total 3

Social Media Specialist – 1101013469
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC)
CIT 105 Introduction to Computers OR Digital Literacy ....... 0-3
CIT 155 Web Page Development .......................................... 3
CIT 151 Social Media I ....................................................... 3
CIT 152 Social Media Tools and Technologies ...................... 3
CIT 251 Social Media II ..................................................... 3
BAS 160 Introduction to Business ....................................... 3
BAS 282 Introduction to Marketing ..................................... 3
Total 18-21

Video Game Designer - 1101013519
(Offered at BLC, WKC)
CIT 105 Introduction to Computers ......................................... 3
CIT 120 Computational Thinking ............................................. 3
CIT/IMD 124 Approved Level I Web Programming Language .... 3
CIT/IMD 221 Introduction to Game Development .................. 3
CIT/IMD 222 Computer Graphics ......................................... 3
CIT/IMD 223 3D Modelling for Video Games ................. 3
CIT/IMD 227 Game Production ............................................. 3
CIT/IMD 274 Seminar in Game Development .................... 3
Video Game Designer Elective ........................................... 3
Total 30

Web Server Administrator - 1101013449
(Offered at ASC, BLC, BSC, ELC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC)
CIT 120 Computational Thinking ............................................. 3

Complete two of the following three courses:
CIT 150 Internet Technologies ............................................. 3
CIT 155 Web Page Development .......................................... 3
CIT 157 Web Site Design and Production ............................ 3
Subtotal 6

CIT 219 Internet Protocols .................................................... 3
CIT 255 Web Server Administration .................................... 3
Complete one of the following pairs of courses:

CIT 262 MS Network Infrastructure AND ......................... 3
CIT 261 MS Active Directory Services ............................... 3
CIT 262 MS Network Infrastructure AND ......................... (3)
CIT 264 Microsoft Server Management ...................................... (3)
CIT 217 UNIX/Linux Administration AND ............................ (3)
CIT 218 UNIX/Linux Net Infrastructure .................................... (3)

Total 21

Web Programmer - 1101013439
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC)

CIT 120 Computational Thinking ................................. 3
CIT 150 Internet Technologies ............................................. 3
CIT 155 Web Page Development ...................................... 3
CIT 157 Web Site Design and Production ............................. 3

Subtotal 6

CIT 170 Database Design Fundamentals ................................ 3
CIT 171 SQL I ................................................................... 3
CIT 253 Data Driven Web Pages: Topic: ................................. 3
Approved Level I Web Programming Language .................... 3
Approved Level II Web Programming Language .................... 3

Total 24

Computerized Manufacturing
and Machining

Work activities in machine shop involve applying knowledge of machine capabilities, the properties of materials, and shop practices to set-up and operate various machines. The skills needed to position work pieces, adjust machines, and verify the accuracy of machine functions and finish products are taught by classroom instruction, demonstration, and hands on experience.

Students enrolled in the Computerized Manufacturing & Machining program must achieve a minimum grade of "C" in each technical course.

Associate in Applied Science

Computerized Manufacturing & Machining - 4805037019
(Offered at BLC, BSC, ELC, GTW, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

General Education:

ENG 101 Written Communication, Oral Communications, or Heritage/Humanities .................. 3
MAT 116 Technical Mathematics OR ................................................ 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 Applied Machining II OR ..................................................... 3
CMM 124 Applied Machining ............................................................. (6)
CMM 130 Manual Programming AND .............................................. 3
CMM 132 CAD/CAM/CNC OR ......................................................... 3
CMM 134 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 Tool path Production AND ................................. 3
CMM 2402 Advanced 3-D Code Sequencing and Macro Systems OR ................. 3
CMM 240 Intro to 3-D Programming OR .............................................. (6)
CMM 244 Advanced Programming/Setup Practices .............................................. (6)
BRX 110 Basic Blueprint Reading for Machinist .............................................. 2
BRX 210 Mechanical Blueprint Reading for Machinist OR ................................. 2
BRX 112 Blueprint Reading for Machinist .............................................. (4)

Subtotal 48-51

Total Credits 64-67

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

Diploma

CNC Machinist - 4805034069
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

General Education:

Area 1:

Written Communication, Oral Communications, or Heritage/Humanities .................. 3

Area 2:

Social/Behavioral Science, Natural Science or Quantitative Reasoning .................. 3

Subtotal 6

Electives (Co-op or Practicum) .............................................. 1

Subtotal 1
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**Subtotal:** 48-51

**Total Credits:** 55-58

### 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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**Subtotal:** 36-39

**Total Credits:** 43-46

### Certificates

#### CNC Machining & Waterjet Technology - 4805033189

(Offered at ASC, BLC, HPC, JFC, OWC, SEC, SMC, WKC)

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**Total Credits:** 18

#### CNC Operator - 4805033129

(Offered at ASC, BLC, HPC, JFC, OWC, SEC, SMC, WKC)

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**Total Credits:** 25-30

#### Exploratory Machining I - 4805033199

(Offered at ASC, BLC, HPC, JFC, OWC, SEC, SKY, SMC, WKC)

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**Total Credits:** 11-12

#### Machine Tool Operator I - 4805033109

(Offered at ASC, BLC, HPC, JFC, OWC, SEC, SKY, SMC, WKC)

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**Total Credits:** 17-19
Machine Tool Operator II - 4805033119  
(Offered at ASC, BLC, ELC, GTW, HPC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WRC)

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Digital Literacy* ........................................................................ 0 – 3
Social/Behavioral Science, Natural Science, or Quantitative Reasoning ............................................. 3

Total Credits ........................................................................... 25-30

Tool & Die Apprentice - 4805033130  
(Offered at BLC, HZC, MDC, SEC)

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<td>CMM 118</td>
<td>Metrology/Control Charts</td>
<td>2</td>
</tr>
<tr>
<td>CMM 151</td>
<td>Machinery’s Handbook/Metallurgy OR</td>
<td>3</td>
</tr>
<tr>
<td>CMM 112</td>
<td>Fundamentals of Machine Tools B</td>
<td>(4)</td>
</tr>
<tr>
<td>CMM 152</td>
<td>Jigs, Fixtures and Gaging OR</td>
<td>3</td>
</tr>
<tr>
<td>CMM 120</td>
<td>Applied Machining I</td>
<td>(3)</td>
</tr>
<tr>
<td>CMM 153</td>
<td>Mold Theory</td>
<td>3</td>
</tr>
<tr>
<td>CMM 154</td>
<td>Die Theory</td>
<td>3</td>
</tr>
<tr>
<td>CMM 130</td>
<td>Manual Programming</td>
<td>3</td>
</tr>
<tr>
<td>CMM 132</td>
<td>CAD/CAM/CNC OR</td>
<td>3</td>
</tr>
<tr>
<td>BRX 110</td>
<td>Basic Blueprint Reading for Machinist OR</td>
<td>2</td>
</tr>
<tr>
<td>BRX 210</td>
<td>Mechanical Blueprint Reading</td>
<td>2</td>
</tr>
<tr>
<td>MAT 116</td>
<td>Technical Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>WLD 151</td>
<td>Basic Welding A OR</td>
<td>2</td>
</tr>
<tr>
<td>IEX 295</td>
<td>Special Problems III</td>
<td>(3)</td>
</tr>
</tbody>
</table>

Computer/Digital Literacy* OR ............................................. (0-3)

Total Credits ........................................................................... 29-34

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

Construction Technology

The Construction Technology program is designed to prepare students for entry level positions in the construction industry. Residential and light commercial construction applications are taught. This program includes instructional units in blueprint reading, building site layout procedures, foundation systems, light framing construction methods, exterior and interior finish systems, concrete forming systems and construction safety. Units of instruction are designed to include lecture and practical experience in the lab or on-site projects. This program also offers an excellent prerequisite for students that plan to pursue a career in areas such as construction management, civil engineering or architectural design.

The Green Building Technology certificate familiarizes students with the principles of green building technologies and methods of sustainable construction. Emphasis is placed on green materials used in the construction of buildings along with alternative and/or renewable energy systems. Covers both Leadership in Energy and Environmental Design (LEED) and the National Green Building Standard’s rating systems for the certification process of green buildings.

Progression in the Construction Technology Program is contingent upon achievement of a grade of “C” or better in each technical and mathematics course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Associate in Applied Science  
Construction Technology - 4602017029  
(Offered at BLC, ELC)

General Education Requirements:

Written Communication ........................................................................ 3
Business Mathematics OR .................................................................... 3
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

BRX 220 Blueprint Reading For Construction .................................... 3
CAR 126 Intro to Construction .......................................................... 3
CAR 127 Intro to Construction-Lab .................................................... 1
CAR 140 Surveying & Foundations .................................................... 3
CAR 141 Surveying & Foundations-Lab .............................................. 2
CAR 190 Light Frame Construction I ............................................... 3
CAR 191 Light Frame Const. I-Lab .................................................... 2
CAR 196 Light Frame Construction II ............................................... 3
CAR 197 Light Frame Const. II-Lab .................................................... 2
CAR 200 Light Frame Construction III .............................................. 3
CAR 201 Light Frame Const. III-Lab ................................................... 2
CAR 298 Practicum in Construction OR ............................................ 2
CAR 299 Co-op in Construction......................................................... (2-4)
ISX 100 Industrial Safety ................................................................. 3
Technical Electives* .......................................................................... 10
Subtotal ................................................................................................. 42-47

Total Credits ......................................................................................... 60-65

Note: Digital Literacy must be demonstrated either by competency exam or by completing an approved digital literacy course.

*Technical Electives: (This list is not all inclusive. Other courses [technical or general education] may be taken as approved by Construction Technology instructor.)

BRX 120 Basic Blueprint Reading ....................................................... 3
CAR 150 Construction Formwork ......................................................... 3
CAR 151 Construction Formwork - Lab ................................................. 2
CAR 198 Special Topics in Construction ............................................. 1 - 6
CAR 240 Light Frame Construction IV ............................................... 3
CAR 241 Light Frame Const. IV-Lab .................................................... 2

Diploma

Construction Carpenter - 4602014019

(Offered at BLC, BSC, ELC, HZC, JFC, MYC, SEC, SMC)

General Education Requirements:

Area 1: Written Communication, Oral Communications, or Humanities/Heritage ......................... 3
Area 2: Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning ....................... 3
Subtotal ................................................................................................. 6

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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DLC 100</td>
<td>Digital Literacy course OR demonstrated competency</td>
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<tr>
<td>BRX 220</td>
<td>Blueprint Reading for Construction</td>
<td>3</td>
</tr>
<tr>
<td>CAR 126</td>
<td>Intro to Construction</td>
<td>3</td>
</tr>
<tr>
<td>CAR 127</td>
<td>Intro to Construction-Lab</td>
<td>1</td>
</tr>
<tr>
<td>CAR 140</td>
<td>Surveying &amp; Foundations</td>
<td>3</td>
</tr>
<tr>
<td>CAR 141</td>
<td>Surveying &amp; Foundations-Lab</td>
<td>2</td>
</tr>
<tr>
<td>CAR 190</td>
<td>Light Frame Construction I</td>
<td>3</td>
</tr>
<tr>
<td>CAR 191</td>
<td>Light Frame Const. I-Lab</td>
<td>2</td>
</tr>
<tr>
<td>CAR 196</td>
<td>Light Frame Construction II</td>
<td>3</td>
</tr>
<tr>
<td>CAR 197</td>
<td>Light Frame Const. II-Lab</td>
<td>2</td>
</tr>
<tr>
<td>CAR 200</td>
<td>Light Frame Construction III</td>
<td>3</td>
</tr>
<tr>
<td>CAR 201</td>
<td>Light Frame Const. III-Lab</td>
<td>2</td>
</tr>
<tr>
<td>CAR 298</td>
<td>Practicum in Construction OR</td>
<td>2</td>
</tr>
<tr>
<td>CAR 299</td>
<td>Co-op in Construction</td>
<td>2</td>
</tr>
<tr>
<td>ISX 100</td>
<td>Industrial Safety</td>
<td>3</td>
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<tr>
<td>Technical Electives*</td>
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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.)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRX 120</td>
<td>Basic Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>CAR 150</td>
<td>Construction Formwork</td>
<td>3</td>
</tr>
<tr>
<td>CAR 151</td>
<td>Construction Formwork-Lab</td>
<td>2</td>
</tr>
<tr>
<td>CAR 198</td>
<td>Special Topics in Construction</td>
<td>3</td>
</tr>
<tr>
<td>CAR 240</td>
<td>Light Frame Construction IV</td>
<td>3</td>
</tr>
<tr>
<td>CAR 241</td>
<td>Light Frame Const. IV-Lab</td>
<td>2</td>
</tr>
</tbody>
</table>

Finish Carpenter - 4602014029

(Offered at JFC)

General Education Requirements: (6-9 credit hours)

Area 1: Written Communication, Oral Communications, Humanities/Heritage, Social/Behavioral Sciences, Natural Science or Quantitative Reasoning

Area 2: Written Communication, Oral Communications, Humanities/Heritage, Social/Behavioral Sciences, Natural Science or Quantitative Reasoning

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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INF 105</td>
<td>Introduction to Painting</td>
<td>2</td>
</tr>
<tr>
<td>INF 111</td>
<td>Advanced Painting</td>
<td>2</td>
</tr>
<tr>
<td>INF 115</td>
<td>Introduction to Wall covering</td>
<td>2</td>
</tr>
<tr>
<td>INF 121</td>
<td>Advanced Wall Covering</td>
<td>2</td>
</tr>
<tr>
<td>INF 125</td>
<td>Introduction to Drywall</td>
<td>2</td>
</tr>
<tr>
<td>INF 131</td>
<td>Advanced Drywall</td>
<td>2</td>
</tr>
<tr>
<td>INF 205</td>
<td>Introduction to Acoustical Carpentry</td>
<td>3</td>
</tr>
<tr>
<td>INF 211</td>
<td>Advanced Acoustical Carpentry</td>
<td>2</td>
</tr>
<tr>
<td>INF 220</td>
<td>Customer Relations</td>
<td>2</td>
</tr>
<tr>
<td>INF 298</td>
<td>Practicum (or)</td>
<td>2</td>
</tr>
<tr>
<td>CAR 299</td>
<td>Cooperative Education in Construction</td>
<td>2</td>
</tr>
</tbody>
</table>

Subtotal: 24-29

Total Credits: 30-35

Note: Digital Literacy must be demonstrated either by competency exam or by completing an approved digital literacy course.

Certificates

Acoustical Carpenter - 4602013119

(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, OWC, SEC, SMC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>INF 205</td>
<td>Introduction to Acoustical Carpentry</td>
<td>3</td>
</tr>
<tr>
<td>INF 211</td>
<td>Advanced Acoustical Carpentry</td>
<td>2</td>
</tr>
<tr>
<td>Electives: *Technical Electives</td>
<td>6</td>
<td></td>
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Total Credits: 11

Basic Carpenter - 4602013139

(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, OWC, SEC, SMC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAR 126</td>
<td>Intro to Construction</td>
<td>3</td>
</tr>
<tr>
<td>CAR 127</td>
<td>Intro to Construction-Lab</td>
<td>1</td>
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<tr>
<td>Electives: (Any five [5] additional credits, program or otherwise)</td>
<td>5</td>
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</tbody>
</table>

Total Credits: 9

Carpenter Helper - 4602013109

(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, OWC, SEC, SMC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRX 220</td>
<td>Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>CAR 126</td>
<td>Intro to Construction</td>
<td>3</td>
</tr>
<tr>
<td>CAR 127</td>
<td>Intro to Construction-Lab</td>
<td>1</td>
</tr>
<tr>
<td>CAR 150</td>
<td>Construction Formwork</td>
<td>3</td>
</tr>
<tr>
<td>CAR 151</td>
<td>Construction Formwork-Lab</td>
<td>2</td>
</tr>
<tr>
<td>Electives: (*Suggested Technical Electives)</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 18

Construction Forms Helper - 4602013029

(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMC)

<table>
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<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRX 220</td>
<td>Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>CAR 126</td>
<td>Intro to Construction</td>
<td>3</td>
</tr>
<tr>
<td>CAR 127</td>
<td>Intro to Construction-Lab</td>
<td>1</td>
</tr>
<tr>
<td>CAR 150</td>
<td>Construction Formwork</td>
<td>3</td>
</tr>
<tr>
<td>CAR 151</td>
<td>Construction Formwork-Lab</td>
<td>2</td>
</tr>
<tr>
<td>Electives: (*Suggested Technical Electives)</td>
<td>6</td>
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</table>

Total Credits: 17

*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.)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRX 120</td>
<td>Basic Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>ISX 100</td>
<td>Industrial Safety</td>
<td>3</td>
</tr>
<tr>
<td>CAR 140</td>
<td>Construction Surveying and Foundation Systems</td>
<td>3</td>
</tr>
<tr>
<td>CAR 141</td>
<td>Construction Surveying and Foundation Systems-Lab</td>
<td>2</td>
</tr>
<tr>
<td>CAR 150</td>
<td>Construction Formwork</td>
<td>3</td>
</tr>
<tr>
<td>CAR 151</td>
<td>Construction Formwork-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 198</td>
<td>Special Topics in Construction</td>
<td>2</td>
</tr>
<tr>
<td>CAR 200</td>
<td>Light Frame Construction III- Exterior and Interior Finish</td>
<td>3</td>
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<tr>
<td>CAR 201</td>
<td>Light Frame Construction III- Exterior and Interior Finish-Lab</td>
<td>2</td>
</tr>
<tr>
<td>CAR 240</td>
<td>Light Frame Construction IV – Cabinetry and Trim</td>
<td>3</td>
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<tr>
<td>CAR 241</td>
<td>Light Frame Construction IV – Cabinetry and Trim</td>
<td>2</td>
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<tr>
<td>DLC 100</td>
<td>Digital Literacy</td>
<td>3</td>
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</table>
**Suggested General Education Electives:**

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>TEC 200</td>
<td>Technical Communications</td>
<td>3</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking</td>
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<tr>
<td>COM 252</td>
<td>Intro to Interpersonal Communications</td>
<td>3</td>
</tr>
<tr>
<td>MAT 105</td>
<td>Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MAT 116</td>
<td>Technical Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>PHX 150</td>
<td>Introductory Physics</td>
<td>3</td>
</tr>
<tr>
<td>EFM 100</td>
<td>Personal Financial Management</td>
<td>3</td>
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<tr>
<td>WPP 200</td>
<td>Workplace Principles</td>
<td>3</td>
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</tbody>
</table>

Note: TEC 200, PHX 150, EFM 100 and WPP 200 may be used to fill diploma general education requirements only.

**Technical Electives: 10 Credit Hours**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAR 190</td>
<td>Light Frame Construction I – Floors and Walls</td>
<td>3</td>
</tr>
<tr>
<td>CAR 127</td>
<td>Introduction to Construction Lab</td>
<td>1</td>
</tr>
<tr>
<td>CAR 128</td>
<td>Introduction to Construction</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>
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<tr>
<td>CAR 201</td>
<td>Light Frame Construction III – Exterior and Interior Finish (Lab)</td>
<td>2</td>
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</tbody>
</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 the Construction Technology Instructor.)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CAR 140</td>
<td>Surveying &amp; Foundations</td>
<td>3</td>
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<tr>
<td>CAR 141</td>
<td>Surveying &amp; Foundations-Lab</td>
<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>
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<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**

<table>
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<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>BRX 220</td>
<td>Blueprint Reading for Construction OR</td>
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<td>BRX 2201</td>
<td>Blueprint Reading for Construction</td>
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</tr>
<tr>
<td>BRX 2202</td>
<td>Blueprint Reading for Construction OR</td>
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</tr>
<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>
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<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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<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>
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<tr>
<td>CAR 200</td>
<td>Light Frame Construction III AND</td>
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<td>CAR 201</td>
<td>Light Frame Construction III-Laboratory</td>
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<td>CAR 299</td>
<td>Cooperative Education in Construction</td>
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<tr>
<td>BSX 100</td>
<td>Industrial Safety OR Approved Safety course by Program Coordinator</td>
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**Total Credits:** 24-29

---

**Painter, Interior Finish - 4602013049**

*Offered at BSC, HZC, JFC, SEC*

<table>
<thead>
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<th>Title</th>
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<tbody>
<tr>
<td>INF 105</td>
<td>Introduction to Painting</td>
<td>2</td>
</tr>
<tr>
<td>INF 111</td>
<td>Advanced Painting</td>
<td>2</td>
</tr>
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<td>Electives: *Technical Electives</td>
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**Total Credits:** 6

**Painter, Paper Hanger - 4602013129**

*Offered at BSC, HZC, JFC, SEC*

<table>
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<tr>
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<tr>
<td>INF 105</td>
<td>Introduction to Painting</td>
<td>2</td>
</tr>
<tr>
<td>INF 111</td>
<td>Advanced Painting</td>
<td>2</td>
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<tr>
<td>INF 115</td>
<td>Introduction to Wallcovering</td>
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<tr>
<td>INF 121</td>
<td>Advanced Wallcovering</td>
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**Total Credits:** 8

**Residential Carpenter - 4602013059**

*(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, OWC, SEC, SMC)*

<table>
<thead>
<tr>
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<td>Blueprint Reading for Construction OR</td>
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</tr>
<tr>
<td>CAR 126</td>
<td>Intro to Construction</td>
<td>3</td>
</tr>
<tr>
<td>CAR 127</td>
<td>Intro to Construction-Lab</td>
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</tr>
<tr>
<td>CAR 140</td>
<td>Surveying &amp; Foundations</td>
<td>3</td>
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<tr>
<td>CAR 141</td>
<td>Surveying &amp; Foundations-Lab</td>
<td>2</td>
</tr>
<tr>
<td>CAR 190</td>
<td>Light Frame Construction I – Floors and Walls</td>
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<td>CAR 191</td>
<td>Light Frame Construction I – Floors and Walls (Lab)</td>
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<tr>
<td>CAR 196</td>
<td>Light Frame Construction II – Ceilings and Roofs</td>
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<tr>
<td>CAR 197</td>
<td>Light Frame Construction II – Ceilings and Roofs (Lab)</td>
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<tr>
<td>CAR 200</td>
<td>Light Frame Construction III – Exterior and Interior Finish</td>
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<tr>
<td>CAR 201</td>
<td>Light Frame Construction III – Exterior and Interior Finish (Lab)</td>
<td>2</td>
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<tr>
<td>CAR 240</td>
<td>Light Frame Construction IV – Cabinetry and Trim</td>
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<tr>
<td>CAR 241</td>
<td>Light Frame Construction IV – Cabinetry and Trim</td>
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**Total Credits:** 32

**Residential Roofer - 4602013069**

*(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, OWC, SEC, SMC)*

<table>
<thead>
<tr>
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<td>CAR 127</td>
<td>Intro to Construction-Lab</td>
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<tr>
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</table>

**Total Credits:** 12

**Residential Site Layout Assistant - 4602013079**

*(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, OWC, SEC, SMC)*

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<tr>
<td>CAR 127</td>
<td>Intro to Construction-Lab</td>
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<tr>
<td>CAR 140</td>
<td>Surveying &amp; Foundations</td>
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<tr>
<td>CAR 141</td>
<td>Surveying &amp; Foundations-Lab</td>
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<tr>
<td>Electives: *Suggested Technical Electives</td>
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**Total Credits:** 15
Progression in the Cosmetology program is contingent upon achievement of a grade of "C" or better in each technical course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

After successful completion of the prescribed 1500 hours of instruction, program graduates are eligible to take the examination administered by the National-Interstate Council of State Boards of Cosmetology (NIC) to become licensed cosmetologists.

After successful completion of the prescribed 750 hours of instruction, program graduates are eligible to take the examination administered by the National-Interstate Council of State Boards of Cosmetology (NIC) to become licensed nail technicians.

After successful completion of the prescribed 450 hours of instruction, program graduates are eligible to take the examination administered by the National-Interstate Council of State Boards of Cosmetology (NIC) to become licensed estheticians.
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 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.
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<tr>
<th>Track Electives: (Choose 9 credit hours from the following courses)</th>
<th>CRJ 102 Introduction to Corrections</th>
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<tr>
<td>CRJ 108 Advanced Firearms and Less Than Lethal Weapons</td>
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<tr>
<td>CRJ 110 Principles of Asset Protection</td>
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<tr>
<td>CRJ 201 Introduction to Criminalistics</td>
<td>3</td>
<td></td>
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<tr>
<td>CRJ 203 Community Corrections/Probation &amp; Parole</td>
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<tr>
<td>CRJ 208 Delinquency and the Juvenile Justice System</td>
<td>3</td>
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<tr>
<td>CRJ 210 Physical Security Technology and Systems</td>
<td>3</td>
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<tr>
<td>CRJ 211 Liability and Legal Issues</td>
<td>3</td>
<td></td>
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<tr>
<td>CRJ 215 Introduction to Law Enforcement</td>
<td>3</td>
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<tr>
<td>CRJ 218 Police Supervision</td>
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<tr>
<td>CRJ 219 Police Recruit Defensive Tactics</td>
<td>3</td>
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<tr>
<td>CRJ 220 Introduction to Computer Forensics</td>
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<td>CRJ 222 Prison and Jail Administration</td>
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<td>CRJ 224 Basic Traffic Collision Investigation</td>
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<td>CRJ 225 Driving and Traffic Enforcement for Law Enforcement</td>
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<tr>
<td>CRJ 228 Unmanned CRJ Technology Applications</td>
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<tr>
<td>CRJ 230 Criminal Justice Courtroom Procedures</td>
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<tr>
<td>CRJ 231 Legal Aspects of Corrections</td>
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<td>CRJ 235 Serial Killers</td>
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<tr>
<td>CRJ 240 Introduction to Corporate and Industrial Security</td>
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<tr>
<td>CRJ 245 Introduction to Business and Financial Fraud</td>
<td>3</td>
<td></td>
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<tr>
<td>CRJ 255 Correctional Intervention Strategies</td>
<td>3</td>
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<tr>
<td>CRJ 277 Introduction to Criminology</td>
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<tr>
<td>CRJ 278 Victimology</td>
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<tr>
<td>CRJ 279 Terrorism and Political Violence</td>
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<td>CRJ 280 Drugs Crime and Society</td>
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<td>CRJ 290 Internship in Criminal Justice</td>
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<td>CRJ 299 Selected Topics in Criminal Justice</td>
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<td>Total Credits:</td>
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**Law Enforcement Track - 430103702**

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

**Required Course:**

| CRJ 215 Introduction to Law Enforcement | 3 |

**Total:**

- **Total Credits:** 61-64

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**Certificates**

**Advanced Law Enforcement – 4301033069**

*(Offered BSC, BLC, MDC, MYC, SEC, SMC)*

**Required Course:**

| CRJ 107 Introduction to Firearms | 4 |
| CRJ 108 Advanced Firearms and Less Than Lethal Weapons | 4 |
| CRJ 204 Criminal Investigations | 3 |
| CRJ 215 Introduction to Law Enforcement | 3 |
| CRJ 219 Police Recruit Defensive Tactics | 4 |
| CRJ 224 Basic Traffic Collision Investigation | 4 |
| CRJ 225 Driving and Traffic Enforcement for Law Enforcement | 4 |

**Total:** 23

**Advanced Technologies in Criminal Justice – 4301033010**

*(Offered HPC, HZC, MDC)*

| CRJ 228 Unmanned CRJ Technology Applications | 3 |
| CRJ 217 Criminal Procedures | 3 |
| CRJ 204 Criminal Investigations | 3 |
| CRJ 220 Computer Forensics | 3 |
| CRJ 201 Criminalistics | 3 |
| CIT 105 Introduction to Computers | 3 |

**Total:** 18

**Community Reentry Specialist Certificate – 4301033089**

*(Offered HPC, HZC, MDC)*

| CRJ 100 Introduction to Criminal Justice | 3 |
| CRJ 202 Issues and Ethics in Criminal Justice | 3 |
| CRJ 208 Delinquency and the Juvenile Justice System | 3 |
| CRJ 278 Victimology | 3 |
| CRJ 255 Correctional Intervention Strategies | 3 |
| HMS 210 Drugs, Society, and Human Behavior | 3 |

**Total:** 18

**Computer Forensics – 4301033019**

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

<p>| 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 |
| CIT 105 Introduction to Computers | 3 |</p>
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRJ 100</td>
<td>Introduction to Criminal Justice</td>
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</tr>
<tr>
<td>CRJ 202</td>
<td>Criminal Law</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 210</td>
<td>Physical Security Technology &amp; Systems</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 220</td>
<td>Introduction to Corporate and Industrial Security</td>
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</tbody>
</table>

**Culinary Arts**

The KCTCS Culinary Arts program is designed to prepare students for careers in the Culinary Arts, Food and Beverage Management, Restaurant Management, Catering, Institutional Food Service, and as Professional Chefs. Course work covers a broad spectrum: the preparation of basic and specialized foods, catering and special event planning, international cuisine, baking and pastry arts, nutrition, sanitation, management techniques and functions, cost control, purchasing and culinary fundamentals. Students work in commercial kitchen/laboratory and dining room through the course of study. The program uses the teaching philosophy of the American Culinary Federation, the Academy of Chefs, the National Restaurant Association Education Foundation, and the American Personal Chef Association. The program competencies are those of the American Culinary Federation.

Progression in the Culinary Arts program is contingent upon achievement of a grade of “C” or better in each CUL and NFS courses.

**Associate in Applied Science**

**Culinary Arts - 1205037029**

(Offered at ASC, ELC, JFC, MYC, SKY, SMC, WKC)

**General Education**

- Quantitative Reasoning ........................................... 3
- Natural Sciences .................................................. 3
- Social/Behavioral Sciences ..................................... 3
- Heritage/Humanities ............................................. 3
- Written Communication ........................................... 3
- Oral Communications ............................................. 3
- Required General Education Hours ............................ 18

**Culinary Arts/Technical Core**

- Introduction to Culinary Arts OR ............................. 2
- Applied Introduction to Culinary Arts ......................... (2)
- Garde Manger ...................................................... 4
- Sanitation and Safety ............................................ 2
- Basic Food Production ............................................ 4
- Basic Baking ....................................................... 4
- Basic Nutrition OR ................................................ 3
- Human Nutrition and Wellness .................................... 3
- Meats, Seafood, and Poultry .................................... 4
- Cost and Control .................................................. 3
- Front of the House OR ............................................ 3
- Front of the House/Catering ..................................... (4)
- Digital Literacy* .................................................. 0-3
- Required Technical Core Hours ................................ 32-36

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

**Catering and Personal Chef Degree Track - 120503701**

(Offered at ASC, ELC, JFC, MYC, SKY, SMC, WKC)

General Education ............................................ 18
Technical Core .................................................. 32-36

- Advanced Baking and Pastry Arts ................................ 4
- Entrepreneurship AND ............................................. 3
- Doing Business as a Personal Chef OR .......................... 3
- Introduction to Business AND .................................... (3)
- Principles of Management ........................................... 3
- Culinary Arts Practicum Experience OR ......................... 2-3
- Culinary Arts Cooperative Education Experience ............. (2-3)
- Total Hours .......................................................... 62-67
### Culinary Arts Degree Track - 120503702
*(Offered at ASC, ELC, JFC, MYC, SKY, SMC, WKC)*

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<tr>
<td>BAS 160</td>
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<tr>
<td>BAS 170</td>
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</tr>
<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
<td>3</td>
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<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>
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**Technical or Support Courses**

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<tbody>
<tr>
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<td>Advanced Baking and Pastry Arts</td>
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<tr>
<td>CUL 260</td>
<td>International and Classical Cuisine OR</td>
<td>4</td>
</tr>
<tr>
<td>CUL 235</td>
<td>Farm to Table OR</td>
<td>(4)</td>
</tr>
<tr>
<td>CUL 225</td>
<td>Professional Confection and Pastry Arts</td>
<td>(4)</td>
</tr>
<tr>
<td>CUL 298</td>
<td>Culinary Arts Practicum Experience OR</td>
<td>2-3</td>
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<tr>
<td>CUL 299</td>
<td>Culinary Arts Cooperative Education Experience</td>
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**Total Hours for Culinary Arts Diploma**

**48-53**

### Food and Beverage Management Degree Track - 120503703
*(Offered at ASC, ELC, JFC, MYC, SKY, SMC, WKC)*

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>CUL 298</td>
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<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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<td><strong>Total Hours</strong></td>
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**Technical or Support Courses**

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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>CUL 220</td>
<td>Advanced Baking and Pastry Arts</td>
<td>4</td>
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<tr>
<td>CUL 260</td>
<td>International and Classical Cuisine OR</td>
<td>4</td>
</tr>
<tr>
<td>CUL 235</td>
<td>Farm to Table OR</td>
<td>(4)</td>
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<tr>
<td>CUL 225</td>
<td>Professional Confection and Pastry Arts</td>
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<td>CUL 298</td>
<td>Culinary Arts Practicum Experience OR</td>
<td>2-3</td>
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<tr>
<td>CUL 299</td>
<td>Culinary Arts Cooperative Education Experience</td>
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**Total Hours for Food and Beverage Management**

**49-54**

### Diplomas

#### Catering and Personal Chef - 1205034019
*(Offered at ASC, ELC, JFC, MYC, SKY, SMC, WKC)*

<table>
<thead>
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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BAS 170</td>
<td>Entrepreneurship OR</td>
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<td>BAS 283</td>
<td>Principles of Management</td>
<td>3</td>
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<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>
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<td>CUL 299</td>
<td>Culinary Arts Cooperative Education Experience</td>
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**Technical or Support Courses**

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<tbody>
<tr>
<td>CUL 220</td>
<td>Advanced Baking and Pastry Arts</td>
<td>4</td>
</tr>
<tr>
<td>CUL 260</td>
<td>International and Classical Cuisine OR</td>
<td>4</td>
</tr>
<tr>
<td>CUL 235</td>
<td>Farm to Table OR</td>
<td>(4)</td>
</tr>
<tr>
<td>CUL 225</td>
<td>Professional Confection and Pastry Arts</td>
<td>(4)</td>
</tr>
<tr>
<td>CUL 298</td>
<td>Culinary Arts Practicum Experience OR</td>
<td>2-3</td>
</tr>
<tr>
<td>CUL 299</td>
<td>Culinary Arts Cooperative Education Experience</td>
<td>(2-3)</td>
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<tr>
<td><strong>Technical Support Total</strong></td>
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**Total Hours for Catering and Personal Chef**

**49-54**

### Certificates

#### Advanced Food and Beverage Management - 1205033089
*(Offered at ASC, BSC, ELC, JFC, MYC, SKY, SMC, WKC)*

<table>
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<th>Course Code</th>
<th>Course Title</th>
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<tr>
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<td>Introduction to Culinary Arts OR</td>
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<tr>
<td>BAS 170</td>
<td>Entrepreneurship OR</td>
<td>3</td>
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<td>BAS 283</td>
<td>Principles of Management</td>
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<td>BAS 282</td>
<td>Principles of Marketing</td>
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<tr>
<td>CUL 298</td>
<td>Culinary Arts Practicum Experience OR</td>
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<tr>
<td>CUL 299</td>
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**Technical or Support Courses**

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<td>CUL 105</td>
<td>Applied Introduction to Culinary Arts</td>
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<td>CUL 250</td>
<td>Garde Manger</td>
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<td>CUL 125</td>
<td>Sanitation and Safety</td>
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<td>CUL 211</td>
<td>Basic Food Production</td>
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<td>CUL 215</td>
<td>Basic Baking</td>
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<tr>
<td>CUL 230</td>
<td>Basic Nutrition OR</td>
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<td>CUL 240</td>
<td>Meats, Seafood, and Poultry</td>
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<td>CUL 270</td>
<td>Human Relations Management</td>
<td>3</td>
</tr>
<tr>
<td>CUL 280</td>
<td>Cost and Control</td>
<td>3</td>
</tr>
<tr>
<td>CUL 285</td>
<td>Front of the House OR</td>
<td>3</td>
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<tr>
<td>CUL 290</td>
<td>Front of the House/Catering</td>
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</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BAS 170</td>
<td>Entrepreneurship OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 282</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>CUL 298</td>
<td>Culinary Arts Practicum Experience OR</td>
<td>2-3</td>
</tr>
<tr>
<td>CUL 299</td>
<td>Culinary Arts Cooperative Education Experience</td>
<td>(2-3)</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td></td>
<td><strong>43-45</strong></td>
</tr>
</tbody>
</table>
### Advanced Catering - 1205033079
*(Offered at ASC, BSC, ELC, JFC, MYC, SKY, SMC, WKC)*
- Catering Certificate .................................................. 16
- CUL 211 Basic Food Production ........................................ 4
- CUL 220 Advanced Baking and Pastry Arts .......................... 4
- CUL 240 Meats, Seafood, Poultry ..................................... 4
- CUL 260 International and Classical Cuisine ........................ 4
- CUL 270 Human Relations Management .............................. 3
- CUL 280 Cost and Control ................................................ 3
- BAS 170 Entrepreneurship OR ......................................... 3
- BAS 160 Introduction to Business AND ............................. (3)
- BAS 283 Principles of Management .................................. (3)

**Total Hours** 41-44

### Advanced Culinary Arts - 1205033069
*(Offered at ASC, BSC, ELC, JFC, MYC, SKY, SMC, WKC)*
- Culinary Arts Technical Core ........................................... 32-36
- Culinary Arts Degree Track Courses ............................... 10-11

**Total Hours** 42-47

### Baking - 1205033109
*(Offered at ASC, JFC, MYC, SKY, SMC, WKC)*
- CUL 100 Introduction to Culinary Arts OR .......................... 2
- CUL 105 Applied Introduction to Culinary Arts ..................... (2)
- CUL 125 Sanitation and Safety ........................................... 2
- CUL 215 Basic Baking ..................................................... 4
- CUL 220 Advanced Baking ................................................ 4

**Total Hours** 12

### Catering - 1205033059
*(Offered at ASC, BSC, ELC, JFC, MYC, SKY, SMC, WKC)*
- CUL 100 Introduction to Culinary Arts OR .......................... 2
- CUL 105 Applied Introduction to Culinary Arts ..................... (2)
- CUL 250 Garde Manger .................................................... 4
- CUL 125 Sanitation and Safety ........................................... 2
- CUL 215 Basic Baking ..................................................... 4
- CUL 290 Front of the House/Catering ................................. 4

**Total Hours** 16

### Culinary Arts - 1205033049
*(Offered at ASC, ELC, MYC, SKY, SMC, WKC)*
- Culinary Arts Technical Core ........................................... 32-36

**Total Hours** 32-36

### Culinary Arts Professional Development - 1205033099
*(Offered at JFC, MYC, SKY, SMC, WKC)*
- Students may choose 12 credit hours from any Culinary Arts courses* ........................................... 12

**Total Hours** 12

*Prerequisites apply

### Farm to Table - 1205033119
*(Offered at ELC, JFC, SMC, WKC)*
- CUL 100 Introduction to Culinary Arts OR .......................... 2
- CUL 105 Applied Introduction to Culinary Arts ..................... (2)
- 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 235 Farm to Table .................................................... 4
- CUL 298 Culinary Arts Practicum Experience ......................... 2-3
- CUL 299 Culinary Arts Cooperative Education Experience ........ (2-3)

**Total Hours** 21-22

### Food and Beverage Management - 1205033039
*(Offered at ASC, BSC, ELC, JFC, MYC, SKY, SMC, WKC)*
- CUL 106 Introduction to Culinary Arts OR .......................... 2
- CUL 105 Applied Introduction to Culinary Arts ..................... (2)
- CUL 125 Sanitation and Safety ........................................... 2
- CUL 211 Basic Food Production .......................................... 4
- CUL 215 Basic Baking ..................................................... 4
- CUL 240 Meats, Seafood, and Poultry ................................ 4
- CUL 270 Human Relations Management .............................. 3
- CUL 280 Cost and Control ................................................ 3
- BAS 160 Introduction to Business AND ............................. (3)
- BAS 282 Principles of Marketing ....................................... 3
- BAS 283 Principles of Management .................................. 3
- Digital Literacy* ......................................................... 0-3

**Total Hours** 31-34

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

### Fundamentals of Culinary Arts - 1205033029
*(Offered at ASC, BSC, ELC, JFC, MYC, SKY, SMC, WKC)*
- CUL 100 Introduction to Culinary Arts OR .......................... 2
- CUL 105 Applied Introduction to Culinary Arts ..................... (2)
- CUL 250 Garde Manger .................................................... 4
- CUL 125 Sanitation and Safety ........................................... 2
- CUL 211 Basic Food Production .......................................... 4
- CUL 215 Basic Baking ..................................................... 4

**Total Hours** 16

### Professional Baking and Pastry Arts - 1205033129
*(Offered at ASC, WKC)*
- CUL 100 Introduction to Culinary Arts OR .......................... 2
- CUL 105 Applied Introduction to Culinary Arts ..................... (2)
- CUL 215 Basic Baking ..................................................... 4
- CUL 220 Advanced Baking ................................................ 4
- CUL 225 Professional Confection and Pastry Arts ..................... 4

**Total Hours** 16

### Dental Hygiene

The Dental Hygiene program prepares graduates to use their skill and knowledge as dental hygienists to fulfill the role of a licensed oral health professional who is responsible for preventing and treating oral diseases in a variety of settings. The curriculum includes courses in general education and in dental hygiene as required by the Commission on Dental Accreditation (CODA) and Kentucky state dental practice act. An AAS is awarded after completion of the total curriculum and a certificate is awarded after completion of each: DHP 120, DHP 135, and DHP 229. The Dental Hygiene curriculum is organized around a clearly defined, comprehensive educational experience that combines general education and dental hygiene courses through didactic, laboratory and clinical courses in order that students may apply scientific evidence-based knowledge in the performance of dental hygiene procedures. Students are also required to attend rotations through outside agencies for enrichment and must provide their own transportation.

Graduates are eligible to take state, regional and national board exams such as National Board Dental Hygiene Examination (NBDHE) and American Board of Dental Examiners (ADEX) clinical boards. Acceptance into the Dental Hygiene program is based on a selective admissions process. In order to be considered for admission, applicants must comply with college and program admission requirements prior to the online-posted deadline. Students enrolled in the Dental Hygiene program must achieve a minimum grade of "C" or better in each Dental Hygiene and approved biological science course. Documentation of
digital literacy as defined by KCTCS and Cardiopulmonary resuscitation (CPR) are required prior to admission to DHP courses.

Note: The Kentucky Board of Dentistry may deny a license to practice dental hygiene to graduates who have been convicted of a misdemeanor or felony that involves acts that bear directly on the qualifications of the graduate to practice dental hygiene.

Coronal Polishing Certificate

The Coronal Polishing Certificate offers students the opportunity to earn a credential demonstrating basic competency in the area of coronal polishing, a procedure that is the final stage of a dental prophylaxis on the clinical crown of a tooth. The certificate will be given after completion of DHP 120, which teaches all the requirements for Coronal Polishing training mandated in 201 KAR 8:571 by the Kentucky Board of Dentistry for registered dental assistants. It requires those who are unable to complete a degree in a way of demonstrating their level of proficiency. It requires current dental hygiene students a way to practice as a dental assistant until they receive a dental hygiene license.

Dental Radiography Certificate

The Dental Radiography Certificate offers students the opportunity to earn a credential demonstrating basic dental radiography safety and technique in order to take x-rays under the direct supervision of a licensed dentist. The certificate will be given after completion of DHP 135, which teaches all the requirements for Dental Radiography training mandated in 201 KAR 8:571 by the Kentucky Board of Dentistry for registered dental assistants. It requires those who are unable to complete a degree in a way of demonstrating their level of proficiency. It requires current dental hygiene students a way to practice as a dental assistant until they receive a dental hygiene license.

Local Anesthesia and Nitrous Oxide Sedation Certificate

The Local Anesthesia and Nitrous Oxide Sedation Certificate offers students the opportunity to earn a credential demonstrating basic competency in the administration of block and infiltration anesthesia and nitrous oxide analgesia under the direct supervision of a licensed dentist. This certificate will be given after completion of DHP 229 and the total curriculum when all the requirements for Local Anesthesia and Nitrous Oxide Sedation administration, as well as delivery and mastery of each method as mandated in 201 KAR 8:571 and described in KRS 313:060 Section 10 by the Kentucky Board of Dentistry for registered dental hygienists will be met. It requires those who complete the AAS in Dental Hygiene a formal certificate of completion to be used for purposes of licensure across the country.

Note: Hours Exception (68-72 for the A.A.S.) approved by the KCTCS Board of Regents in June 2020.
## Dental Assisting/Dental Hygiene Integrated Program

The Dental Assisting/Dental Hygiene Integrated Program prepares graduates to function as dental auxiliaries.

The Dental Assisting program prepares the student to function as a dental assistant under the supervision of a dentist. As a member of the dental health team, the dental assistant is responsible for providing such services as assisting the dentist with operative and surgical procedures, manipulation of dental materials, taking radiographs, providing oral health instructions and performing office management tasks.

Dental Assisting students will be awarded a Diploma in Dental Assisting and will be eligible to take the Dental Assisting National Board (DANB). Graduates will also be certified in radiation health and safety, coronal polishing and expanded duties (lab competency). The dental assisting curriculum includes courses in general education as well as dental assisting as required by the Commission on Dental Accreditation. The program provides comprehensive educational experiences through lectures, clinical externship rotations, laboratory and related study. Students must achieve a minimum grade of “C” in each Dental Assisting (DAS) course, Dental Assisting/Hygiene (DAH) course, and approved science courses.

The Dental Hygiene Program prepares the student to function as a dental hygienist on a dental auxiliary team under the supervision of a dentist. The curriculum includes content areas in general studies, biomedical sciences, dental sciences, clinical sciences, radiography, periodontology, and dental hygiene clinical experience. The program provides comprehensive educational experiences through lectures, clinical, and related study in order that graduates may apply scientific knowledge in the performance of dental hygiene procedures. Students must achieve a minimum grade of “C” in each Dental Hygiene (DHG) course, Dental Assisting/Hygiene (DAH) course, and approved science courses. Upon completion, graduates are eligible to apply to take the Dental Hygiene National Board Examination. As the only licensed dental auxiliaries, dental hygienists may be employed in dental offices, clinics, dental schools, public health and government agencies.

The programs are accredited by the Commission on Dental Accreditation, a specialized accrediting body of the American Dental Association. The commission is nationally recognized by the U.S. Department of Education to accredit dental and dental related educational programs at the post-secondary level.

### Associate in Applied Science

**Dental Hygiene - 5106027040**

*Offered in East Consortium – Credential granted by Big Sandy CTC but also taught at Somerset CC*

### General Education Classes:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENG 101</td>
<td>Writing 1</td>
<td>3</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I</td>
<td>4</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>BIO 225</td>
<td>Medical Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>PSY 110</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 101</td>
<td>Introductory Sociology</td>
<td>3</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra and Functions</td>
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**Subtotal** 30

### Integrated Classes:

**Dental Assisting Only Classes**

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</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>
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**Subtotal** 18

### Dental Hygiene Only Classes

<table>
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<td>DHG 120</td>
<td>Pre-Clinical Dental Hygiene</td>
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<tr>
<td>DHG 130</td>
<td>Clinical Dental Hygiene I</td>
<td>3</td>
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<tr>
<td>DHG 132</td>
<td>Pharmacology</td>
<td>2</td>
</tr>
<tr>
<td>DHG 134</td>
<td>Dental Nutrition</td>
<td>2</td>
</tr>
<tr>
<td>DHG 136</td>
<td>Periodontology</td>
<td>1</td>
</tr>
<tr>
<td>DHG 220</td>
<td>Clinical Dental Hygiene II</td>
<td>4</td>
</tr>
<tr>
<td>DHG 221</td>
<td>Local Anesthesia and Nitrous Oxide Sedation</td>
<td>2</td>
</tr>
<tr>
<td>DHG 226</td>
<td>Advanced Periodontology</td>
<td>2</td>
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<tr>
<td>DHG 228</td>
<td>Evidence-Based Practice for the Dental Hygienist</td>
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<tr>
<td>DHG 230</td>
<td>Clinical Dental Hygiene III</td>
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<tr>
<td>DHG 238</td>
<td>Community Dental Health Issues</td>
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**Subtotal** 25

**Total Credit Hours** 68

### Diploma

**Dental Assisting - 5106024019**

*Offered in West Consortium – Credential granted by ASC, BSC, WKY*

### General Education Classes:

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<tbody>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy &amp; Physiology with Laboratory</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>BIO 124</td>
<td>Materials in Dentistry</td>
<td>2</td>
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<tr>
<td>BIO 225</td>
<td>Medical Microbiology</td>
<td>4</td>
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<tr>
<td>PSY 110</td>
<td>General Psychology</td>
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*Required at Big Sandy CTC, recommended at West Kentucky CTC*

**Subtotal** 7-14

### Integrated Classes

**Dental Assisting Only Classes**

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<tr>
<td>DAS 125</td>
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<td>DAS 225</td>
<td>Dental Assisting II</td>
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<td>DAS 230</td>
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<tr>
<td>DAS 245</td>
<td>Preventive Dentistry</td>
<td>2</td>
</tr>
<tr>
<td>DAS 250</td>
<td>Clinical Externship</td>
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**Subtotal** 18

**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.

Associate in Applied Science
Diagnostic Medical Sonography - 5109107019
(Offered at BLC, ELC, HZC, WKC)

General Education:

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<th>Course</th>
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<tr>
<td>MAT 150</td>
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<td>Human Anatomy and Physiology I AND</td>
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<td>BIO 139</td>
<td>Human Anatomy and Physiology II OR</td>
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<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory</td>
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</tr>
<tr>
<td>PHY 151</td>
<td>Introductory Physics I OR</td>
<td>3</td>
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<td>PHY 152</td>
<td>Introductory Physics II OR</td>
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Supportive Courses:

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<td>AHS 120</td>
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<tr>
<td>NAA 100</td>
<td>Nursing Assistant Skills OR</td>
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<tr>
<td>MNA 100</td>
<td>Medicaid Nurse Aid AND</td>
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<tr>
<td>CPR 100</td>
<td>CPR for Healthcare Professionals OR</td>
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<td>HST 104</td>
<td>Healthcare Basic Skills I with Clinical</td>
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Cardiac Sonography Track – 510910708
(Offered at BLC, ELC)

<table>
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<tr>
<td>DMS 146</td>
<td>Cardiac Techniques I</td>
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<tr>
<td>DMS 147</td>
<td>Cardiac Clinical Education I</td>
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<tr>
<td>DMS 207</td>
<td>Cardiac Techniques II</td>
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<tr>
<td>DMS 216</td>
<td>Cardiac Techniques III</td>
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<tr>
<td>DMS 246</td>
<td>Cardiac Review</td>
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<tr>
<td>DMS 247</td>
<td>Cardiac Clinical Education II</td>
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<td>DMS 248</td>
<td>Cardiac Clinical Education III</td>
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Total 60-66

General Sonography Track - 510910706
(Offered at BLC, ELC, HZC)

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<td>HST 101</td>
<td>Health Care Basic Skills I</td>
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<td>DMS 111</td>
<td>Abdominal Sonography</td>
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<tr>
<td>DMS 116</td>
<td>OB/GYN Sonography</td>
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<tr>
<td>DMS 119</td>
<td>Ultrasonic Physics and Instrumentation</td>
<td>6</td>
</tr>
<tr>
<td>DMS 199</td>
<td>Online Physics Review</td>
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<tr>
<td>DMS 201</td>
<td>Online Abdomen Review</td>
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<tr>
<td>DMS 202</td>
<td>Online OB/GYN Review</td>
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Total 62-70

General/Vascular Sonography Track – 510910705
(Offered at BLC, ELC, HZC, WKC)

<table>
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<tr>
<td>DMS 109</td>
<td>Sonography I</td>
<td>7</td>
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<tr>
<td>DMS 113</td>
<td>Sonography II</td>
<td>6</td>
</tr>
<tr>
<td>DMS 119</td>
<td>Ultrasonic Physics and Instrumentation</td>
<td>6</td>
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<tr>
<td>DMS 255</td>
<td>Vascular Technology</td>
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<td>DMS 260</td>
<td>Vascular Clinical Education</td>
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Total 68-74

Vascular Sonography Track – 510910707
(Offered at BLC, ELC)

<table>
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<tr>
<td>DMS 117</td>
<td>Vascular Sonography I</td>
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<tr>
<td>DMS 118</td>
<td>Vascular Sonography II</td>
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</tr>
<tr>
<td>DMS 119</td>
<td>Ultrasonic Physics and Instrumentation</td>
<td>6</td>
</tr>
<tr>
<td>DMS 136</td>
<td>Vascular Clinical Education I</td>
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Total 61-66
Certificates

Basic Cardiac Ultrasound Technology - 5109103059
(Offered at SKY)
DMS 217 Basic Cardiac Ultrasound Technology ......................... 3
Total 3

Basic Vascular Sonography Technology – 5109103069
(Offered at)
DMS 280 Basic Vascular Sonography Technology ...................... 3
Total 3

Cardiac Sonography – 5109103079
(Offered at)
DMS 119 Ultrasonic Physics and Instrumentation ...................... 6
DMS 146 Cardiac Techniques I ............................................. 12
DMS 147 Cardiac Clinical Education I ................................. 1
DMS 207 Cardiac Techniques II ........................................ 7
DMS 216 Cardiac Techniques III ....................................... 3
DMS 246 Cardiac Review ................................................. 1
DMS 247 Cardiac Clinical Education II ............................ 2
DMS 248 Cardiac Clinical Education III ............................. 6
DMS 249 Cardiac Clinical Education IV ............................... 8
Total 46

General Sonography -5109103089
(Offered at)
DMS 111 Abdominal Sonography ....................................... 7
DMS 116 OB/GYN Sonography ........................................... 6
DMS 119 Ultrasonic Physics and Instrumentation .................. 6
DMS 199 Online Physics Review ....................................... 1
DMS 201 Online Abdomen Review .................................... 1
DMS 202 Online OB/GYN Review ..................................... 1
A total of 17 credit hours must be completed from the following clinical courses:
DMS 126 Clinical Education I ............................................. (3-4)
DMS 230 Clinical Education II ......................................... (5-8)
DMS 240 Clinical Education III ....................................... (5-8)
Total 39

Vascular Sonography– 5109103099
(Offered at)
DMS 117 Vascular Sonography I ........................................ 7
DMS 118 Vascular Sonography II ....................................... 6
DMS 119 Ultrasonic Physics and Instrumentation .................. 6
DMS 136 Vascular Clinical Education I ............................. 4
DMS 204 Online Vascular Review ..................................... 2
DMS 206 Online Vascular Sonography III ........................ 3
DMS 236 Vascular Clinical Education II ............................. 8
DMS 237 Vascular Clinical Education III ............................ 5
Total 41

Diesel Technology

Emphasizes the skills needed to analyze malfunctions and repair, rebuild and maintain construction equipment, agriculture equipment, or medium and heavy trucks in this program of study. Provides instruction and experience in systems such as diesel engines, fuel injection, onboard computers, transmissions, steering and suspension, and brakes.

A student must receive a grade of "C" or better to receive credit for successful completion of courses in the diesel technology curriculum.

Associate in Applied Science

Diesel Technology - 4706057039
(Offered at BLC, ELC, GTW, HPC, OWC, SEC, SKY)

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 .......... 2
- BEX 101 Basic Electricity Lab for Non-Majors OR 3
- 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
- FXP 100 Fluid Power AND ....................................... (3)
- FXP 101 Fluid Power Lab ........................................ (2)
- DIT 150 Power Trains .............................................. 2
- DIT 151 Power Trains Lab .......................................... 2
- DIT 190 Electrical Systems for Diesel Equipment AND 3
- DIT 191 Electrical Systems for Diesel Equipment Lab OR 2
- ADX 260 Electrical Systems AND ............................. (3)
- ADX 261 Electrical Systems Lab .................................... 2
Subtotal 8-10

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 course must be taken.

Agriculture Diesel Technician Track - 470605701
(Offered at ELC, HPC, OWC, SEC)

DIT 152 Powertrain for Construction Equipment ............ 3
DIT 153 Powertrain for Construction Equipment Lab .......... 2
DIT 121 Introduction to Maintenance Welding Lab OR .... 3
IMT 100 Welding for Maintenance AND ......................... (3)
IMT 101 Welding for Maintenance Lab OR ...................... (2)
WLD 120 Shielded Metal Arc Welding (SMAW) AND ...... (3)
WLD 121 Shielded Metal Arc Welding (SMAW) Lab .......... (2)
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
IMT 100 Welding for Maintenance AND ......................... (3)
IMT 101 Welding for Maintenance Lab OR ...................... (2)
WLD 120 Shielded Metal Arc Welding (SMAW) AND ...... (3)
WLD 121 Shielded Metal Arc Welding (SMAW) Lab .......... (2)
DIT 123 Undercarriage Lab ............................................. 3
DIT 152 Powertrain for Construction Equipment .......... 3
DIT 153 Powertrain for Construction Equipment Lab ...... 2
Subtotal 11-13

Total 65-67
Medium and Heavy Truck Technician Track - 470605703  
(Offered at BLC, ELC, GTW, OWC, SEC, SKY)

**General Education**

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**Subtotal** 10

**Recommended Technical Electives (Program Coordinator Approval required)**

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**Subtotal** 44-49

**Subtotal** 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 |

**Subtotal** 6

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**Subtotal** 47-52

**Subtotal** 53-58
### General Education

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### Recommended Technical Electives (Program Coordinator Approval required)

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(Or other courses as approved by the Program Coordinator that will prepare the student for entry into the workforce)

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### Certificate

**Medium and Heavy Truck Technician - 4706054049**

(Offered at ASC, BSC, ELH, GTW, HZC, MHC, OWC, SEC, SMC, WKC)

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**Construction Equipment Mechanic Helper - 4706053019**

(Offered at ASC, BSC, ELH, GTW, HZC, MHC, OWC, SEC, SKY, SMC, WKC)

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**Diesel Engine Mechanic - 4706053079**

(Offered at ASC, BSC, ELH, GTW, HZC, MHC, OWC, SEC, SKY, SMC, WKC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>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 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>
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<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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<td>DIT 153</td>
<td>Powertrain for Construction Equipment Lab</td>
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**Diesel Mechanics Assistant - 4706053189**

(Offered at BSC, ELH, GTW, MHC, OWC, SEC, SMC, WKC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>DIT 103</td>
<td>Preventive Maintenance Lab</td>
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<tr>
<td>DIT 110</td>
<td>Introduction to Diesel Engines</td>
<td>3</td>
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<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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<td>DIT 112</td>
<td>Diesel Engine Repair</td>
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<td>DIT 113</td>
<td>Diesel Engine Repair Lab</td>
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<tr>
<td>DIT 160</td>
<td>Steering and Suspension</td>
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<td>DIT 161</td>
<td>Steering and Suspension Lab</td>
<td>2</td>
</tr>
<tr>
<td>DIT 180</td>
<td>Brakes</td>
<td>3</td>
</tr>
<tr>
<td>DIT 181</td>
<td>Brakes Lab</td>
<td>2</td>
</tr>
<tr>
<td>DIT 190</td>
<td>Electrical Systems for Diesel Equipment</td>
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<td>DIT 191</td>
<td>Electrical Systems for Diesel Equipment Lab</td>
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**Diesel Steering & Suspension Mechanic - 4706053179**

(Offered at ASC, BSC, ELH, GTW, MHC, OWC, SEC, SKY, SMC, WKC)

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<th>Course Name</th>
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<tbody>
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<td>Steering and Suspension Lab</td>
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133
### Electrical/ Electronics Systems Mechanic - 4706053059
(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC, WKC)

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<thead>
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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>
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<tr>
<td>ADX 120</td>
<td>Basic Automotive Electricity AND</td>
<td>3</td>
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<tr>
<td>ADX 121</td>
<td>Basic Automotive Electricity Lab OR</td>
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<tr>
<td>ELT 110</td>
<td>Circuits I</td>
<td>5</td>
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<tr>
<td>DIT 190</td>
<td>Electrical Systems for Diesel Equipment AND</td>
<td>3</td>
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<tr>
<td>ADX 260</td>
<td>Electrical Systems AND</td>
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<tr>
<td>ADX 261</td>
<td>Electrical Systems Lab</td>
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### Fluid Power Mechanic - 4706053119
(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC, WKC)

<table>
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<tr>
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<td>DIT 140</td>
<td>Hydraulics</td>
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<td>FPX 101</td>
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### Heavy Duty Brake Mechanic - 4706053039
(Offered at ASC, BLC, BSC, ELC, GTW, HZC, MYC, OWC, SEC, SKY, SMC, WKC)

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### Heavy Duty Drive Train Mechanic - 4706053089
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, MYC, OWC, SEC, SKY, SMC, WKC)

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<td>Power Trains</td>
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### Medium and Heavy Truck Mechanic Helper - 4706053149
(Offered at ASC, BLC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SKY, SMC, WKC)

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<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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<tr>
<td>ELT 110</td>
<td>Circuits I</td>
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<tr>
<td>ADX 150</td>
<td>Engine Repair AND</td>
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</tr>
<tr>
<td>ADX 151</td>
<td>Engine Repair Lab OR</td>
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</tr>
<tr>
<td>DIT 110</td>
<td>Introduction to Diesel Engines AND</td>
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<td>DIT 111</td>
<td>Introduction to Diesel Engines Lab</td>
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<tr>
<td>ADX 260</td>
<td>Electrical Systems AND</td>
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<td>ADX 261</td>
<td>Electrical Systems Lab</td>
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<td>DIT 190</td>
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<tr>
<td>DIT 191</td>
<td>Electrical Systems for Diesel Equipment Lab</td>
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<td>DIT 112</td>
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<td>DIT 113</td>
<td>Diesel Engine Repair Lab</td>
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<td>Steering and Suspension</td>
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<td>DIT 161</td>
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<td>Brakes Lab</td>
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### Mobile Air Conditioning Mechanic - 4706053169
(Offered at ASC, BSC, ELC, GTW, HPC, HZC, MYC, OWC, SEC, SMC, WKC)

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<td>Climate Control Lab</td>
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### Preventive Maintenance Mechanic - 4706053199
(Offered at ASC, BSC, ELC, GTW, HPC, HZC, MYC, OWC, SEC, SMC, WKC)

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<td>DIT 103</td>
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### Undercarriage Mechanic - 4706053099
(Offered at ASC, BSC, ELC, GTW, HZC, MYC, OWC, SEC, SMC, WKC)

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>DIT 123</td>
<td>Undercarriage Lab</td>
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### Digital Printing Technology
The 3D Printing Technician – Level I certificate prepares individuals to design for and apply 3D printing technology, also known as additive manufacturing, towards a host of basic applications. Areas of study will incorporate a foundational understanding of the technology, the equipment, thermoplastics and other materials, design applications, related software, business applications, scanning technology, and other related concepts. Upon completion of the certificate, students will be versed in the broad impact of the technology and prepared for an entry level career within an industry that applies 3D printing technology in some fashion.

#### Certificate

**3D Printing Technician- Level I - 1506073059**
(Offered at ASC, SMC)

<table>
<thead>
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<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>DPT 100</td>
<td>Introduction to 3D Printing Technology OR</td>
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<tr>
<td>DPT 102</td>
<td>3D Printing Technology Fundamentals AND</td>
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<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
<td>3</td>
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<tr>
<td>BAS 160</td>
<td>Introduction to Business OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 170</td>
<td>Entrepreneurship</td>
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</tr>
<tr>
<td>DPT 150</td>
<td>Introduction to Engineering Mechanics for 3D Printing</td>
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<tr>
<td>DPT 280</td>
<td>Special Projects for 3D Printing, Level I</td>
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<tr>
<td>Elective: Any technical, entry level course within a 3D printing applications course</td>
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<tr>
<td>Elective: Any technical, entry level course within a 3D printing applications course</td>
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<td></td>
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<tr>
<td><strong>Total</strong></td>
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<td>16-18</td>
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</table>
Emergency Medical Services - Paramedic

Provides a comprehensive course of study that prepares the graduate for licensure as a Paramedic (EMTP). The curriculum is structured based on the National EMS Education Standards and regulations set forth by the Kentucky Board of Emergency Medical Services (KBEMS). The three-phase curriculum is designed to provide the student with the cognitive knowledge, psychomotor skills, and affective behaviors necessary to competently perform as a Paramedic. The EMS program prepares students to function in the emergency medical profession as a Paramedic in a variety of environments. Graduates primarily provide pre-hospital emergency care to acutely ill and/or injured individuals while working on an ambulance, mobile advanced life support unit, industrial on-site unit, fire department, emergency department, and other agencies.

Graduates are eligible to apply to take the National Registry Paramedic Exam. Students may earn either a Certificate or Associate in Applied Science Degree at the Paramedic level. Credit may be awarded to currently practicing paramedics towards the Associate in Applied Science Degree. Enrollment in this program is limited; therefore, a selective admissions process is followed. Students are required to hold current unrestricted certification as an EMT in Kentucky or hold current unrestricted registration with the National Registry EMT as an EMT to be eligible for paramedic program admission.

Acceptance into the EMS Paramedic Program is based upon a selective admissions process. In order to be considered for admission, applicants must comply with college and program admission requirements.

Applicants must present current, unrestricted state certification or proof of National Registry of EMT eligibility to become state certified. Licensed paramedics may receive credit towards the Associate of Applied Science in Emergency Medical Services – Paramedic. When eligible, the licensed paramedic will be awarded thirty-eight (38) semester credit hours upon the completion of: a) applying to the college of choice; b) submitting a letter of intent and a copy of the required licensure/certification document to the program coordinator with subsequent validation by the Registrar; and c) completing at least nine (9) credit hours from the degree-granting institution. Credit will be awarded as follows: 4 credit hours/EMS 200 Introduction to Paramedicine; AND 3 credit hours/EMS 210 Emergency Pharmacology; OR 6 credits EMS 201 Paramedicine I; 3 credit hours/EMS 240 Medical Emergencies I; AND 3 credit hours/EMS 250 Medical Emergencies II; OR 5 credit hours/EMS 202 Principles of Paramedicine I; 3 credit hours/EMS 220 Cardiovascular Emergencies; AND 3 credit hours/EMS 260 Special Populations; AND 1 credit hour/EMS 275 Seminar in ALS; OR 6 credits EMS 205 Principles of Paramedicine III; 4 credit hours/EMS 230 Traumatic Emergencies; AND 1 credit hour/EMS 270 EMS Operations; OR 6 credit hours/EMS 208 Principles of Paramedicine IV; OR 4 credit hours/EMS 208 Principles of Paramedicine IV-part 1 AND 2 credit hours/EMS 2082 Principles of Paramedicine IV-part 2; 5 credit hours/EMS 285 Field Internship & Summation; OR 6 credit hours/EMS 212 Practicum III Field AND Principles of Paramedicine V; 2 credit hours/EMS 211 Fundamentals Lab; OR 2 credit hour/EMS 204 Principles Lab I; 1 credit hour/EMS 221 Cardiac & Trauma Lab; OR 1 credit hour/EMS 207 Principles Lab II; 1 credit hour/EMS 231 Medical Lab; OR 2 credit hour/EMS 209 Principles Lab III; 1 credit hour/EMS 215 Clinical Experience I; OR 1 credit hour/EMS 203 Practicum I-Clinical; 1 credit hour/EMS 225 Clinical Experience II; AND 2 credit hours/EMS 235 Clinical Experience III; OR 3 credit hour/EMS 206 Practicum II-Clinical.

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.

Students can receive a certificate as an Electrocardiogram Technician by completing EMS 150. EMS 150 will prepare students to perform and interpret electrocardiograms in a hospital or clinical setting.
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 – 1517017010
(Offered at GTW)

<table>
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<th>Course</th>
<th>Credits</th>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
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<tr>
<td>MAT 110</td>
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<td>PHY 171</td>
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<td>PHY 172</td>
<td>Applied Physics OR</td>
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<td>ENG 101</td>
<td>Natural Sciences</td>
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<td>Heritage/Humanities</td>
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<td>MAT 110</td>
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Core
BAS 160 Introduction to Business ......................... 3
EET 150 Transformers ......................................... 2
EET 151 Transformers Lab ..................................... 1
ELT 110 Circuits I ........................................... 5
ETT 110 Voice and Data Installer Level I .................... 4
ISX 101 Introduction to Industrial Safety .................. 3
EGY 170 Energy Utility Technologies ...................... 4
EGY 120 Outside Plant Communications .................. 4
Digital Literacy (NOTE: Digital literacy must be demonstrated either by competency exam or by successfully completing a digital literacy course.) .......................... 0-3
Subtotal 26-29

Technical Electives
Any course listed below OR in the certificates listed below (not including courses in the technical core) OR as approved by the program coordinator ................................. 16
COE 199 Cooperative Education (up to 8 credit hours) ..... 4
DFT 122 Introduction Computer Aided Drafting .......... 4
APT 258 Lineman Technology II ............................. 4
APT 259 Lineman Technology II Laboratory ............... 4
Subtotal 16

Total Credits 60-64

Certificate
Energy Efficiency and Analysis – 1517013170
(Offered at BLC, BSC, GTW)
ACR 170 Heat Load / Duct Design ............................ 3
EGY 240 Energy Efficiency and Analysis .................. 4
Digital Literacy (NOTE: Digital literacy must be demonstrated either by competency exam or by successfully completing a digital literacy course.) .......................... 0-3
Total 7-10

Energy Efficiency Electrical Controls Technician – 1517013110
(Offered at GTW)
EET 154 Electrical Construction I ............................ 2
EET 155 Electrical Construction I Lab ........................ 2
EET 250 National Electric Code ............................. 4
EET 252 Electrical Construction II .......................... 2
EET 253 Electrical Construction II Lab ...................... 2
ELT 110 Circuits I ........................................... 5
EGY 220 Energy Efficiency Electrical Controls .......... 4
Total 21

Energy Utility Technician – 1517013130
(Offered at GTW)
EET 150 Transformers ......................................... 2
EET 151 Transformers Lab ..................................... 1
ELT 110 Circuits I ........................................... 5
ISX 101 Introduction to Industrial Safety .................. 3
EGY 170 Energy Utility Technologies ...................... 4
Digital Literacy (NOTE: Digital literacy must be demonstrated either by competency exam or by successfully completing a digital literacy course.) .......................... 0-3
Total 15-18

Lineman Technician – 1517013160
(Offered at GTW)
EES 101 Basic Electronics ..................................... 2
ETT 150 Transformers ......................................... 2
EET 151 Transformers Laboratory ............................ 1
EGY 170 Energy Utility Technologies ...................... 4
APT 258 Lineman Technology II ............................ 3
APT 259 Lineman Technology II Laboratory ............... 4
Total 16

Outside Plant Technician – 1517013120
(Offered at GTW)
ELT 110 Circuits I ........................................... 5
ETT 110 Voice and Data Installer Level I .................... 4
ISX 101 Introduction to Industrial Safety .................. 3
EGY 120 Outside Plant Communications .................. 4
Digital Literacy (NOTE: Digital literacy must be demonstrated either by competency exam or by successfully completing a digital literacy course.) .......................... 0-3
Total 16-19

Solar/Photovoltaic Technologies – 1517013150
(Offered at ASC, BLC, BSC, GTW)
EET 154 Electrical Construction I ............................ 2
EET 155 Electrical Construction I Lab ........................ 2
ELT 110 Circuits I ........................................... 5
EGY 230 Solar / Photovoltaic Technologies ................. 4
Total 13

Wind System Technologies – 1517013140
(Offered at BSC, BLC, GTW)
ELT 110 Circuits I ........................................... 5
IMT 150 Maintaining Industrial Equipment ................. 3
IMT 151 Maintaining Industrial Equipment Lab .......... 2
EGY 250 Wind / Turbine Technologies ...................... 4
Total 14

Engineering and Electronics Technology
The Engineering and Electronics Technology program provides course work, competencies and experiences to prepare the students for success in the areas of Engineering technology, electronics, computer maintenance, mechanical, industrial, computer aided design, robotics and automation, communications, instrumentation, and telephony.

Progress in the Engineering and Electronics Technology program is contingent upon achievement of a grade of “C” or better in each technical course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Associate in Applied Science
Engineering and Electronics Technology - 1503997019
(Offered at BLC, BSC, ELC, HPC, JFC, OWC, SKY, SMC)

General Education
MAT 150 College Algebra OR ................................. 3
MAT 126 Technical Algebra and Trigonometry OR ...... (3)
PHY 171 Higher Level Quantitative Reasoning Course .... (3)
APM 125 Applied Physics OR ................................. 4
Other Natural Sciences with Consent of Program Coordinator ......................................... (3)
ENG 101 Writing I ............................................... 3
Social/Behavioral Sciences .................................... 3
Oral Communications ........................................ 3
Heritage/Humanities .......................................... 3
Subtotal: 18-19
### Core:

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<td>CAD 100</td>
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</tr>
<tr>
<td>BRX 120</td>
<td>Basic Blueprint Reading OR</td>
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Equivalent Course with Consent of Program Coordinator (3-4) credits hours of elective credit not used in the selected track.

**Subtotal:** 24-25

### Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.

### Communications Track – 150399708

(Offered at BLC, ELC)

<table>
<thead>
<tr>
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<th>Title</th>
<th>Credits</th>
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<tr>
<td>ELT 214</td>
<td>Devices II</td>
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<td>ELT 240</td>
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Subtotal: 20

**Total:** 62-64

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.

### Computer Aided Design Track – 150399702

(Offered at HPC, JFC)

<table>
<thead>
<tr>
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<td>CAD 200</td>
<td>Intermediate Computer Aided Drafting</td>
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<tr>
<td>CAD 201</td>
<td>Advanced 3D Modeling</td>
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Subtotal: 20

**Total:** 62-64

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.

### Computer Maintenance Track – 150399703

(Offered at BLC, ELC, JFC, SMC)

<table>
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<td>Computer Hardware Maintenance AND</td>
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<td>ELT 232</td>
<td>Computer Software Maintenance OR</td>
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<td>CIT 111</td>
<td>Computer Hardware and Software</td>
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<td>ELT 220</td>
<td>Digital II</td>
<td>3</td>
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<td>CIT 160</td>
<td>Introduction to Networking Concepts OR</td>
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<td>CIT 161</td>
<td>Introduction to Networks</td>
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Subtotal: 18-20

**Total:** 60-64

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.

### Electronics Track – 150399707

(Offered at BLC, BSC, ELC, HPC, JFC, OWC, SMC)

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<td>ELT 220</td>
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Subtotal: 20

**Total:** 62-64

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.

### Industrial Track – 150399704

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

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<td>ELT 220</td>
<td>Digital II</td>
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<td>ELT 244</td>
<td>Electrical Machinery and Controls OR</td>
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<td>ELT 250</td>
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<td>EET 277</td>
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Technical Electives * | 5

Subtotal: 20

**Total:** 62-64

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.

### Instrumentation Track – 150399709

(Offered at BSC, ELC, JFC)

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<td>ISM 102</td>
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<td>Fundamentals of Process Control</td>
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Technical Electives * | 7

Subtotal: 18

**Total:** 60-62

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.

### Mechanical Track – 150399706

(Offered at JFC, OWC)

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<td>IMT 150</td>
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<td>IMT 151</td>
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<td>EET 265</td>
<td>Applied Fluid Power OR</td>
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<td>FPX 100</td>
<td>Fluid Power AND</td>
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<td>FPX 101</td>
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<tr>
<td>CAD 200</td>
<td>Intermediate Computer Aided Drafting</td>
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Technical Electives * | 8

Subtotal: 19-22

**Total:** 61-66

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.
Robotics and Automation Track — 150399705
(Offered at BLC, BSC, ELC, HPC, JFC, OW, SKY)

ELT 265  Applied Fluid Power OR ............................................ (3)
FPX 100  Fluid Power AND ....................................................... (3)
FPX 101  Fluid Power Lab ............................................................ (2)
ELT 260  Robotics and Industrial Automation  .................................. (5)
ELT 244  Electrical Machinery and Controls OR ................................. (4)
EET 270  Electrical Motor Controls I AND ........................................ (2)
EET 271  Electrical Motor Controls I Lab ............................................. (2)
ELT 250  Programmable Logic Controllers OR ................................. (3)
EET 276  Programmable Logic Controllers AND ................................ (2)
EET 277  Programmable Logic Controllers Lab ................................... (2)
Technical Electives * ................................................................. 4
Subtotal: 20-22

Total 62-66

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.

Diplomas

Apprenticeship- 1503994059
(Offered at)

General Education:
Area 1: Written Communication or Oral Communications .......................... 3
AND
Area 2: MAT 150 College Algebra OR ......................................................... 3
MAT 126 Technical Algebra and Trigonometry OR ........................................... (3)
Higher Level Quantitative Reasoning Course ............................................... (3)
Subtotal: 6

Core:
ELT 110 Circuits I OR ................................................................. 5
IMT 110 Industrial Maintenance Electrical Principles AND ........................... (3)
IMT 111 Industrial Maintenance Electrical Principles Lab .......................... (2)
ELT 114 Circuits II ................................................................. 5
ELT 210 Devices I ........................................................................ 4
ELT 120 Digital I ........................................................................ 3
CAD 100 Introduction to Computer Aided Design OR ................................ (3)
BRX 120 Basic Blueprint Reading OR .................................................... (3)
ELT 289 Engineering and Electronics Technology Capstone Course............ 1
Digital Literacy ........................................................................ 3
NOTE: If a student takes CAD 100 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track............................................................ (3)
COED 198 Practicum OR ................................................................. 1-2
COE 199 Cooperative Education OR ...................................................... (1-2)
Equivalent Course with Consent of Program Coordinator .......................... (1-2)
Subtotal: 25-27

APS 201 Apprenticeship Studies ............................................................... 24
Subtotal: 24

Total 55-57

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.

Communications – 1503994029
(Offered at BLC, JFC, OW, SEC, SMG)

General Education:
Area 1: Written Communication or Oral Communications .......................... 3
AND
Area 2: MAT 150 College Algebra OR ......................................................... 3
MAT 126 Technical Algebra and Trigonometry OR ........................................... (3)
Higher Level Quantitative Reasoning Course ............................................... (3)
Subtotal: 6

Core:
ELT 110 Circuits I OR ................................................................. 5
IMT 110 Industrial Maintenance Electrical Principles AND ........................... (3)
IMT 111 Industrial Maintenance Electrical Principles Lab .......................... (2)
ELT 114 Circuits II ................................................................. 5
ELT 210 Devices I ........................................................................ 4
ELT 120 Digital I ........................................................................ 3
CAD 100 Introduction to Computer Aided Design OR ................................ (3)
BRX 120 Basic Blueprint Reading OR .................................................... (3)
ELT 289 Engineering and Electronics Technology Capstone Course............ 1
Digital Literacy ........................................................................ 3
NOTE: If a student takes CAD 100 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track............................................................ (3)
COED 198 Practicum OR ................................................................. 1-2
COE 199 Cooperative Education OR ...................................................... (1-2)
Equivalent Course with Consent of Program Coordinator .......................... (1-2)
Subtotal: 25-27

ELT 234 Computer Hardware Maintenance AND .................................. 3
ELT 232 Computer Software Maintenance OR ........................................ 3
CIT 111 Computer Hardware and Software ............................................. (4)
ELT 220 Digital II ....................................................................... 3
CIT 160 Introduction to Networking Concepts OR .................................. 4
CIT 161 Introduction to Networks ............................................................ (4)
Technical Electives * ................................................................. 9
Subtotal: 20-22

Total 51-55

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.
**Digital Telephony - 1503994109**  
*(Offered at)*

**General Education:**

**Area 1:** Written Communication or Oral Communications ................. 3
AND

**Area 2:**

- MAT 150 College Algebra OR .................................................. 3
- MAT 126 Technical Algebra and Trigonometry OR ....................... (3)
- Higher Level Quantitative Reasoning Course ......................... (3)

**Subtotal:** 6

**Core:**

- ELT 110 Circuits I OR .......................................................... 5
- IMT 110 Industrial Maintenance Electrical Principles AND .......... (3)
- IMT 111 Industrial Maintenance Electrical Principles Lab ........... (2)
- ELT 114 Circuits II ................................................................ 5
- ELT 210 Devices I ................................................................. 4
- ELT 120 Digital I ................................................................. 3
- CAD 100 Introduction to Computer Aided Design OR ............... 3
- BRX 120 Basic Blueprint Reading OR .................................... (3)

**Equivalent Course with Consent of Program Coordinator (3-4)**

**ELT 289 Engineering and Electronics Technology Capstone Course .... 1**

**Digital Literacy ....................................................... 3**

**COED 198 Practicum OR ........................................................ 1-2**

**COE 199 Cooperative Education OR ........................................ (1-2)**

**Equivalent Course with Consent of Program Coordinator (1-2)**

**Subtotal:** 25-27

**Subtotal:**

**Total 46-49**

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.*

**Electronics – 1503994019**  
*(Offered at BLC, BSC, ELC, HPC, JFC, OWC, SEC, SMC)*

**General Education:**

**Area 1:** Written Communication or Oral Communications ................. 3
AND

**Area 2:**

- MAT 150 College Algebra OR .................................................. 3
- MAT 126 Technical Algebra and Trigonometry OR ....................... (3)

**Subtotal:** 6

**Core:**

- ELT 110 Circuits I OR .......................................................... 5
- IMT 110 Industrial Maintenance Electrical Principles AND .......... (3)
- IMT 111 Industrial Maintenance Electrical Principles Lab ........... (2)
- ELT 114 Circuits II ................................................................ 5
- ELT 210 Devices I ................................................................. 4
- ELT 120 Digital I ................................................................. 3
- CAD 100 Introduction to Computer Aided Design OR ............... 3
- BRX 120 Basic Blueprint Reading OR .................................... (3)
- ELT 289 Engineering and Electronics Technology Capstone Course .... 1

**Digital Literacy ....................................................... 3**

**COED 198 Practicum OR ........................................................ 1-2**

**COE 199 Cooperative Education OR ........................................ (1-2)**

**Equivalent Course with Consent of Program Coordinator (1-2)**

**Subtotal:** 25-27

**Subtotal:** 6

**Total 54-57**

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.*

**Industrial Electronics – 1503994079**  
*(Offered at)*

**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)

**Subtotal:** 6

**Subtotal:** 6

**Total 51-53**

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.*

**Engineering Design Technician – 1503994089**  
*(Offered at JFC)*

**General Education:**

**Area 1:** Written Communication or Oral Communications ................. 3
AND

**Area 2:**

- MAT 150 College Algebra OR .................................................. 3
- MAT 126 Technical Algebra and Trigonometry OR ....................... (3)
- Higher Level Quantitative Reasoning Course ......................... (3)

**Subtotal:** 6

**Core:**

- ELT 110 Circuits I OR .......................................................... 5
- IMT 110 Industrial Maintenance Electrical Principles AND .......... (3)
- IMT 111 Industrial Maintenance Electrical Principles Lab ........... (2)
- ELT 114 Circuits II ................................................................ 5
- ELT 210 Devices I ................................................................. 4
- ELT 120 Digital I ................................................................. 3
- CAD 100 Introduction to Computer Aided Design OR ............... 3
- BRX 120 Basic Blueprint Reading OR .................................... (3)

**Equivalent Course with Consent of Program Coordinator (3-4)**

**ELT 289 Engineering and Electronics Technology Capstone Course .... 1**

**Digital Literacy ....................................................... 3**

**COED 198 Practicum OR ........................................................ 1-2**

**COE 199 Cooperative Education OR ........................................ (1-2)**

**Equivalent Course with Consent of Program Coordinator (1-2)**

**Subtotal:** 25-27

**Subtotal:** 6

**Subtotal:**

**Total 54-57**

NOTE: If a student takes CAD 100 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track.  

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.*
### Core:

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<thead>
<tr>
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**NOTE:** If a student takes CAD 100 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track. (Offered at ELC)

### Area 1:

**Written Communication or Oral Communications**

<table>
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<tr>
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**Equivalent Course with Consent of Program Coordinator**

**Subtotal:** 25-27

**Total:** 55-57

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD 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 |

**Area 2:**

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<td>1-2</td>
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**Equivalent Course with Consent of Program Coordinator**

**Subtotal:** 25-27

**Total:** 55-57

### Core:

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**NOTE:** If a student takes CAD 100 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track. (Offered at ELC)

**COE 198** Practicum OR | 1-2 |
**COE 199** Cooperative Education OR | 1-2 |

**Equivalent Course with Consent of Program Coordinator**

**Subtotal:** 25-27

**Total:** 55-57

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.*

### Mechanical – 1503994069

*(Offered at JFC, OWC)*

### General Education:

**Area 1:**

| Written Communication or Oral Communications | 3 |

**Area 2:**

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**Equivalent Course with Consent of Program Coordinator**

**Subtotal:** 6

**Total:** 5-53

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.*

### Robotics and Automation – 1503994039

*(Offered at BL, BSC, HPC, JFC, OWC, SKY)*

### General Education:

**Area 1:**

| Written Communication or Oral Communications | 3 |

**Area 2:**

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**Equivalent Course with Consent of Program Coordinator**

**Subtotal:** 6
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<td>BRX 120</td>
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Digital Literacy | 3 |

Equivalent Course with Consent of Program Coordinator | (1-2) |

Subtotal: 25-27 |

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Subtotal: 21 |

Total 52-54 |

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator

Certificates

Automation Technician – 1503993229
(Offered at BLC, BSC, HEC, HPC, JFC, OWC, SEC, SKY)

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Total 16 |

CAD Technician – 1503993239
(Offered at ELC, HPC, JFC, OWC, SEC, SKY)

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Total Credits 7 |

Communications Technician – 1503993039
(Offered at BLC, BSC, ELT, HEC, HPC, JFC, OWC, SEC, SMN)

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Total 27 |

Computer Maintenance Technician – 1503993029
(Offered at BLC, BSC, ELT, HEC, HPC, JFC, OWC, SEC, SMN)

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Digital Telephony Technician – 1503993119
(Offered at BSC, OWC, SEC)

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Total 17 |

Electronics Technician – 1503993069
(Offered at BLC, BSC, HPC, JFC, OWC, SEC, SKY, SMN)

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Total 17 |

Digital Literacy | 3 |

Industrial Electronics Technician I – 1503993129
(Offered at BLC, BSC, HPC, JFC, OWC, SEC, SKY)

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Total 17 |

Electronics Tester – 1503993089
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Total 17 |

Industrial Electronics Technician II – 1503993139
(Offered at BLC, BSC, HPC, JFC, OWC, SEC, SKY)

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Environmental Science Technology

This program includes specialized environmental science courses in addition to general education coursework to provide individuals the background necessary for understanding the ecological relationships of the environment. Coursework also emphasizes the application of scientific principles to pollution control problems in accordance with state and federal regulations. Practical lab and field experience in sampling and analysis will be stressed. Emphasis is placed on developing the students’ ability to function effectively in a variety of job situations.

Graduates of this program will be prepared to sample and analyze air, water and soil in accordance with state and federal regulations. Environmental technicians may be responsible for such job duties as air pollution surveillance, analysis of water and wastewater samples, ground water and surface water assessment, field sampling, data interpretation, and other support services to engineering and science professionals.

Graduates in this field may be employed as technicians by federal, state and local governmental units as well as utilities, private industry, and environmental engineering consulting firms.

Admissions Requirements

The following information has been taken from the Rules of the Senate and is subject to change without notice. All applicants meeting the appropriate academic requirements shall be considered equally for admission to Bluegrass Community and Technical College or to any academic program thereof regardless of economic or social status, and without discrimination on the basis of race, color, religion, sex, marital status, beliefs, age, national origin, sexual orientation, or physical or mental disability.

In order to be admitted to the Environmental Science Technology (EST) Program, each student must be admitted to Bluegrass Community and Technical College.

In order to be admitted to the Environmental Science Technology Program, a student must:

1. Complete EST 150, EST 160, and MA 109 with a passing grade or transfer credit from an accredited institution for comparable courses (to be assessed by EST Coordinator), and
2. Attend a pre-admission conference with the EST Program coordinator or the coordinator's designee.

Associate in Applied Science

Environmental Science Technology - 1505077019

(Offered at BLC)

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<tr>
<td>COM 252</td>
<td>Intro to Interpersonal Communications*</td>
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<tr>
<td>BIO 112</td>
<td>Introduction to Biology*</td>
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<td>EST 150</td>
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Environmental Technology

The environmental technology program has been developed in concert with various regulatory agencies, state universities and businesses and industries. Environmental Technicians conducts tests and field investigations to obtain data for use by environmental, engineering, and scientific personnel in determining sources and methods of controlling pollutants in air, water and soil, by utilizing knowledge of agriculture, chemistry, meteorology, engineering principles and applied technologies.

Certificates

Hazardous Materials Technician - 1505073019

(Offered at BLC)

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Electives:

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<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>
<tr>
<td>ENV 297</td>
<td>Special Problems III</td>
<td>(3)</td>
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</table>

Total Credits: 37

Wastewater Treatment Plant Attendant – 1505073039

(Offered at an institution)

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CPU 100</td>
<td>Introduction to Computers</td>
<td>3</td>
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<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>
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</tr>
<tr>
<td>ENV 120</td>
<td>Environmental Chemistry</td>
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<tr>
<td>ENV 121</td>
<td>Environmental Chemistry Lab</td>
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<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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</tr>
<tr>
<td>ENV 270</td>
<td>Treatment and Disposal Technologies</td>
<td>3</td>
</tr>
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<td>ENV 290</td>
<td>Wastewater Treatment Technology</td>
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Electives:

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<tr>
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<td>(1)</td>
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<td>ENV 295</td>
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Total Credits: 20

Waste Processing Attendant – 1505073029

(Offered at BSC)

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<tr>
<td>ENV 260</td>
<td>Hazardous Materials</td>
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<td>ENV 261</td>
<td>Hazardous Materials Lab</td>
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Total Credits: 61

Water Treatment Plant Operator - 1505073049

(Offered at an institution)

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<thead>
<tr>
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<tr>
<td>CPU 100</td>
<td>Introduction to Computers</td>
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<tr>
<td>ENV 100</td>
<td>Environmental Mathematics</td>
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<tr>
<td>ENV 110</td>
<td>Introduction to Environmental Technology</td>
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<tr>
<td>ENV 121</td>
<td>Environmental Chemistry Lab</td>
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<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>
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<tr>
<td>ENV 270</td>
<td>Treatment and Disposal Technologies</td>
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<td>TEC 200</td>
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Electives:

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<tr>
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Total Credits: 36

Water Treatment Plant Attendant – 1505073059

(Offered at BSC)

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<td>Water Treatment Technology Lab</td>
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Electives:

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<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENV 293</td>
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<td>(1)</td>
</tr>
<tr>
<td>ENV 295</td>
<td>Special Problems II</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: 20
Equine Studies

The Equine Studies Program prepares students for entrance into the equine workforce with a focus on the thoroughbred racing, breeding and sales 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, bloodstock, 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 expectation of employers in the equine/Thoroughbred industries that provide the basic foundational skills for entry or mid-level employment in the industry.

Other Certificates:

The Equine Industry Workforce Certificate will prepare students for entry to mid-level careers in the equine industry such as a track groom or barn foreman. Students will learn technical skills related to the care and handling of horses through laboratory courses as well as learn the basics of equine anatomy and physiology, equine health and the Thoroughbred industry through lecture classes.

The Exercise Rider Certificate will provide students with the basic skills and techniques to prepare them for a career as a professional exercise rider in the Thoroughbred industry. Students will learn technical skills necessary to ride a racehorse through laboratory courses as well as apply those skills in a co-op at a Thoroughbred breaking and/or training operation.

The Veterinary Assistant Certificate will prepare students for a career as a veterinary assistant in the equine industry. Students will learn technical skills related to the care and handling of horses through laboratory courses as well as learn equine anatomy and physiology, health and lameness through lecture courses. In addition, students will apply competencies in a co-op at a local veterinary clinic/hospital or equine rehabilitation center.

Total Credits: 36
Exercise Science

The Personal Trainer Certificate Program is comprised of American Council on Exercise (ACE) curricula, and will provide real-world experiences, skills, and knowledge needed to assess, design, and implement a personalized exercise program for clients. Graduates are eligible to take the ACE Personal Trainer Exam to become ACE-certified personal trainers.

CPR and Standard First Aid requirements must be obtained and kept current by completing program approved CPR and Standard First Aid courses prior to completing the certificate.

Certificate

Personal Trainer – 5109993029

(Offered at BSC)

MIT 103 Medical Office Terminology OR ......................... 3
CL A 131 Medical Terminology from Greek and Latin OR .... (3)
A HS 115 Medical Terminology .............................................. (3)
CPR 100 CPR for the Healthcare Professional .................... 1
SFA 100 Safety and First Aid .................................................. 1
BAS 200 Small Business Management OR ....................... 1
BAS 288 Personal and Organizational Leadership ................ (3)
MSG 100 Musculoskeletal Anatomy and Physiology OR ....... 4
BIO 135 Basic Anatomy and Physiology with Laboratory ..... (4)
KHP 150 Personal Health Behavior .................................... 3
KHP 160 Personal Nutrition and Fitness .............................. 3
KHP 225 Exercise Techniques and Physical Training ............ 3
KHP 235 Personal Trainer Practicum ................................. 2

Total Credits 23

Fermentation Science

The Fermentation Science program provides the educational foundation and practicum for careers in brewing with a specific emphasis on the development of craft beers. The coursework covers a broad spectrum of knowledge and competencies required throughout the brewing process and in a modern brewing facility including chemistry, biology, fermentation, materials, recipe formulation, sensory evaluation, packaging, quality management, equipment maintenance, facilities maintenance, and accounting. Students are also introduced to electrical theory and mechanical concepts that are applied when working with brewing equipment and facilities. Students will work in commercial breweries to gain practical application relative to classes taken throughout the course of study.

The Fermentation Science program will prepare students to sit for the Institute of Brewing and Distilling (IBD) General Certificate in Brewing exam that is recognized by the Master Brewer’s Association of the Americas (MBAA).

Certificates are embedded within the Fermentation Science A.A.S. program but are not stand alone certificates and may only be acquired while seeking the degree.
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 HZC, OWC)

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
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<tr>
<td>SPA 101</td>
<td>Elementary Spanish</td>
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</tr>
<tr>
<td>QMS 201</td>
<td>Customer Service Improvement Skills</td>
<td>3</td>
</tr>
<tr>
<td>OST 235</td>
<td>Business Communication Technology OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>BAS 120</td>
<td>Personal Finance OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 294</td>
<td>Money and Financial Institutions</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
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<td>13</td>
</tr>
</tbody>
</table>

Fire Science Technology

If you are interested in a career in the fire service, the Fire Science Technology Program will prepare you for the challenges facing today’s emergency responders. In the program you will learn skills related to fire suppression, 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. The AAS Fire Science Technology will offer students additional built-in options for: Fire Chief Diploma, Academic Certificates, and a Fire/Emergency Services Higher Education (FESHE) track that will allow students the option of applying credit toward certain bachelor programs at the university level. Fire Chief Diploma:

This diploma may be awarded after students complete 48-51 credit hours of basic and advanced firefighter courses; fire officer courses; administrative and academic courses; and general education requirements. Students that successfully complete this program of study will possess the basic skills to lead a fire department.

Fire Service Administrator Certificate:

Available to students that have completed the advanced firefighting courses and the fire officer courses. Prepares students for entry-level officer or administrative positions in a fire department.

Advanced Firefighter Certificate:

Available to students that complete 21 credit hours of technical firefighting courses and will allow students to be prepared for certification testing and employment as a firefighter in a private or public fire department setting.

Basic Firefighter Certificate:

Available to students that complete 12 credit hours of basic technical firefighting courses and will allow students to be prepared for entry-level employment as a firefighter and subsequent on-the-job training in either private industry or with a public fire department.

Basic Fire Protection Certificate:

This certificate may be awarded after students complete 18 credit hours of study in Fire/Emergency Services Higher Education (FESHE) based courses. These courses focus on the core concepts related to academic fields such as fire protection engineering.

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 an academic 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.

Emergency Medical Responder Certificate:

Students in the Emergency Medical Responder 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. Students successfully completing the course and its requirements will be awarded an academic certificate for Emergency Medical Responder, and will be eligible to sit for the certification examination as administered by the National Registry of Emergency Medical Technicians.

Hazardous Materials Technician Certificate:

Available to students that complete the Hazardous Materials Technician course which will allow students to be prepared for certification testing and/or initial employment as a responder to Hazardous Materials incidents in private industry or public fire department setting.
Associate in Applied Science

Fire Science Technology - 4302037019

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

General Education:
- Heritage/Humanities .................................................. 3
- Quantitative Reasoning ................................................... 3
- Natural Sciences ............................................................ 3
- Social/Behavioral Sciences ............................................... 3
- Written Communication .................................................. 3

Subtotal ................................................................. 15

Technical or Support Courses:

Core Technical Courses:

- Digital Literacy ........................................................ 0-3
- FIR 101 Basic Firefighting I ......................................... 3
- FIR 102 Basic Firefighting II ........................................ 3
- FIR 103 Basic Firefighting III .................................... 3
- FIR 104 Basic Firefighting IV .................................... 3
- FIR 105 Fire Suppression ........................................... 3
- FIR 106 Intro to Special Response ................................. 3
- FIR 107 Intro to Rescue & Patient Care ............................ 3
- FIR 230 Emergency Medical Technician OR .................. 6
- FIR 215 Emergency Medical Responder AND .................. (3)
- FIR 200-Level Elective .............................................. (3)

Subtotal ................................................................. 27-30

Electives:

Complete a total of 18 credit hours of electives

- FIR 198 Practicum ....................................................... 6
- FIR 202 Fire Instructor I .............................................. 3
- FIR 203 Fire Instructor II ............................................ 3
- FIR 205 Fire Officer I .................................................. 3
- FIR 206 Fire Officer II ................................................ 3
- FIR 210 Aircraft Rescue Firefighting ............................. 3
- FIR 212 Driver/Operator - Pumper ............................... 3
- FIR 213 Driver/Operator - Aerial .................................. 3
- FIR 225 Special Topics in Fire Science ......................... 1-3
- FIR 230 Emergency Medical Technician ...................... 6
- FIR 260 Principles of Emergency Services .................... 3
- FIR 261 Building Construction ..................................... 3
- FIR 262 Fire Behavior and Combustion .......................... 3
- FIR 263 Fire Service Safety & Wellness .......................... 3
- FIR 264 Fire Prevention .................................................. 3
- FIR 265 Fire Protection Systems .................................. 3
- FIR 280 Fire Service Legal Aspects ............................. 3
- FIR 281 Fire Service Administration ............................ 3
- FIR 282 Strategy and Tactics ....................................... 3

Subtotal ................................................................. 18

Total Credits ............................................................ 60-63

NOTE: All FIR courses are available in modules; see course description section.

Diploma

Fire Chief - 4302034039

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

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

Subtotal ................................................................. 6

Technical Courses:

- FIR 101 Basic Firefighting I ......................................... 3
- FIR 102 Basic Firefighting II ........................................ 3
- FIR 103 Basic Firefighting III .................................... 3
- FIR 104 Basic Firefighting IV .................................... 3
- FIR 105 Fire Suppression ........................................... 3
- FIR 106 Intro to Special Responses ................................. 3
- FIR 107 Intro to Rescue & Patient Care ............................ 3
- FIR 198 Practicum ....................................................... 6
- FIR 205 Fire Officer I .................................................. 3
- FIR 206 Fire Officer II ................................................ 3
- FIR 280 Fire Service Legal Aspects ............................. 3
- FIR 281 Fire Service Administration ............................ 3
- FIR 282 Strategy and Tactics ....................................... 3

Subtotal ................................................................. 42

Total Credits ............................................................ 48-51

NOTE: All FIR courses are available in modules; see course description section.

Certificate

Advanced Firefighter - 4302033029

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

FIR 101 Basic Firefighting I ......................................... 3
FIR 102 Basic Firefighting II ........................................ 3
FIR 103 Basic Firefighting III .................................... 3
FIR 104 Basic Firefighting IV .................................... 3
FIR 105 Fire Suppression ........................................... 3
FIR 106 Intro to Special Responses ................................. 3
FIR 107 Intro to Rescue & Patient Care ............................ 3
FIR 280 Fire Service Legal Aspects ............................. 3
FIR 281 Fire Service Administration ............................ 3
FIR 282 Strategy and Tactics ....................................... 3

Subtotal ................................................................. 21

Total Credits ............................................................ 21

NOTE: All FIR courses are available in modules; see course description section.

Basic Firefighter - 4302033019

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

FIR 101 Basic Firefighting I ......................................... 3
FIR 102 Basic Firefighting II ........................................ 3
FIR 103 Basic Firefighting III .................................... 3
FIR 104 Basic Firefighting IV .................................... 3

Total Credits ............................................................ 12

NOTE: All FIR courses are available in modules; see course description section.

Basic Fire Protection - 4302033079

(Offered HPC, MDC)

Select any six of the following 3 credit hour courses to complete 18 hours:

FIR 260 Principles of Emergency Services ............................ 3
FIR 261 Building Construction .......................................... 3
FIR 262 Fire Behavior and Combustion .................................. 3
FIR 263 Fire Service Safety & Wellness ............................. 3
FIR 264 Fire Prevention .................................................. 3
FIR 265 Fire Protection Systems .................................. 3
FIR 280 Fire Service Legal Aspects ............................. 3
FIR 281 Fire Service Legal Administration ............................ 3
FIR 282 Strategy and Tactics ....................................... 3

Total Credits ............................................................ 18

Emergency Medical Responder - 4302033059

(Offered at HPC, MDC)

FIR 215 Emergency Medical Responder ............................ 3

Total Credits ............................................................ 3
### Fire Science Administration - 4302033049
*(Offered at HPC, MDC)*

<table>
<thead>
<tr>
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<td>Fire Suppression</td>
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<td>FIR 106</td>
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<td>FIR 107</td>
<td>Intro to Rescue &amp; Patient Care</td>
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<td>FIR 205</td>
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<td>Fire Officer II OR</td>
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<td>FIR 280</td>
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**NOTE:** All FIR courses are available in modules, see course description section.

### Hazardous Materials Technician - 4302033069
*(Offered at HPC, MDC)*

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<tbody>
<tr>
<td>FIR 220</td>
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<tr>
<td><strong>Total Credits</strong></td>
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</table>

### Fixed Wing Flight Training

Professional Fixed Wing pilots are highly trained and competent aircraft operators who are not only responsible for the safety of their passengers and cargo but also for the operation of sophisticated and expensive equipment. Pilots must meet FAA medical standards. Graduates of the Fixed Wing Flight Training degree program will have completed all academic training required for the Commercial Pilot (Fixed Wing) and flight instructor certificates. Pilots with (Fixed Wing) Commercial Pilot Certificate and/or instructor credentials may find employment in a variety of Fixed Wing applications such as corporate flight operations, charter or cargo airlift, agricultural services, surveying, law enforcement, search and rescue, emergency medical evacuation, flight training, or with numerous government agencies or military services. Non-flying positions are also available with the Federal Aviation Administration or other federal, state, and local aviation agencies.

### FAA: Private Pilot Ground School – Fixed Wing- 4901023010
*(Offered at MDC)*

<table>
<thead>
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<tr>
<td>GEO 251</td>
<td>Writing I</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra</td>
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<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
<td>3</td>
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<td>FWT 101</td>
<td>Private Pilot Fixed Wing Ground School</td>
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### FAA: Private Pilot Certification – Fixed Wing- 4901023020
*(Offered at MDC)*

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<thead>
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<th>Course Title</th>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
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<tr>
<td>FWT 102</td>
<td>Private Pilot Fixed Wing Flight Lab</td>
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<tr>
<td>GEO 251</td>
<td>Weather &amp; Climate</td>
<td>3</td>
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<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
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### FAA: Instrument Pilot Ground School – Fixed Wing- 4901023030
*(Offered at MDC)*

<table>
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<tr>
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<tr>
<td>FWT 102</td>
<td>Private Pilot Fixed Wing Flight Lab</td>
<td>2</td>
</tr>
<tr>
<td>FWT 103</td>
<td>Fixed Wing Aircraft Instrument Pilot Ground School</td>
<td>4</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

### FAA: Instrument Pilot Certification – Fixed Wing- 4901023040
*(Offered at MDC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>FWT 102</td>
<td>Private Pilot Fixed Wing Flight Lab</td>
<td>2</td>
</tr>
<tr>
<td>FWT 104</td>
<td>Fixed Wing Instrument Pilot Fixed Wing Lab</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td></td>
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</table>

### FAA: Commercial Pilot Ground School – Fixed Wing- 4901023050
*(Offered at MDC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FWT 105</td>
<td>Fixed Wing Commercial Pilot Ground School</td>
<td>3</td>
</tr>
<tr>
<td>FWT 104</td>
<td>Fixed Wing Instrument Pilot Flight Lab</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
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</table>

### FAA: Commercial Pilot Certificate – Fixed Wing - 4901023060
*(Offered at MDC)*

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>FWT 106</td>
<td>Commercial Flight Lab</td>
<td>2</td>
</tr>
<tr>
<td>FWT 105</td>
<td>Fixed Wing Commercial Pilot Ground School</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td></td>
<td><strong>11</strong></td>
</tr>
</tbody>
</table>
The Associate in Applied Science degree in General Occupational/Technical Studies provides flexible alternatives for meeting student and employer needs. This program serves two general purposes: 1) Individualized program – provides a flexible curriculum that can be designed to meet specific student and workplace needs, and 2) Degree completion – provides a structure through which credit may be granted for significant prior learning experiences in occupational/technical areas.

Credit earned through certificate and diploma program completion will be applicable toward the Associate in Applied Science in General Occupational/Technical Studies degree when consistent with the objectives of the student’s individual plan of study. This heavily advisor-driven model can combine certificates and/or diplomas in different disciplines for meeting employer needs for unique skill combinations for which there is no established degree program. As much as twenty hours of credit for experiential learning may be applied toward degree completion. KCTCS certificate and diploma credit and acceptable credit transferred from other colleges may also be applied to a student’s program completion plan. At least 25 percent of the approved curriculum credits must be completed at the KCTCS institution granting the degree.

### Associate in Applied Science

**General Occupational/Technical Studies - 30999701**

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

Available Completely Online

#### General Education Component Minimum

<table>
<thead>
<tr>
<th>Category</th>
<th>Minimum Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantitative Reasoning</td>
<td>3</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Heritage/Humanities</td>
<td>3</td>
</tr>
<tr>
<td>Written Communication</td>
<td>3</td>
</tr>
<tr>
<td>Additional General Education</td>
<td>0–5</td>
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</table>

**Subtotal** 15–20

#### Technical Component Minimum

<table>
<thead>
<tr>
<th>Category</th>
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<tbody>
<tr>
<td>Computer/Digital Literacy</td>
<td>0–3</td>
</tr>
<tr>
<td>Technical Courses</td>
<td>45–50</td>
</tr>
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</table>

**Subtotal** 45–53

**Total Credits** 60–68

**NOTE:**

1. If computer/digital literacy is demonstrated by a competency exam, an additional three credit hour course is required.

2. The student must have a plan of study on file in the academic affairs office.

3. A combination of general education and technical courses should not exceed 68 credits.

### Geospatial Technology

The rapidly growing field of Geospatial Technologies (GST) enables users of spatial data the ability to make informed decisions. GST utilizes both time and place as analysis factors. GST is recognized by the U.S. Department of Labor as a high growth, high wage, green industry with a bright outlook. Completers of the certificate will have the skills for employment in GST or associated fields such as Unmanned Aircraft System, agriculture, remote sensing, geospatial intelligence, environmental science, crime analysis, and/or demographics.

#### Certificate

**Applications of Geospatial Technology - 4507023029**

(Offered at JFC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTT 125</td>
<td>Introduction to GIS</td>
<td>3</td>
</tr>
<tr>
<td>CTT 225</td>
<td>GIS Software Tools</td>
<td>3</td>
</tr>
<tr>
<td>GIS 145</td>
<td>Remote Sensing</td>
<td>3</td>
</tr>
<tr>
<td>GIS 255</td>
<td>Geospatial Programming</td>
<td>3</td>
</tr>
<tr>
<td>GIS 260</td>
<td>Geospatial Web Mapping</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits** 15
Global Studies

The Associate of Applied Science Degree in Global Studies (Transfer) is designed to prepare students to be more globally aware and globally literate employees and citizens of the Commonwealth of Kentucky, the United States, and the world. It exposes students to a diverse set of courses and competencies which will prepare them to live and work in settings with diverse ethnic and cultural populations and to function more effectively as members of an increasingly interconnected world.

**Associate in Applied Science**

**Global Studies - 3020017019**

(Offered at JFC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I AND</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II OR</td>
<td>3</td>
</tr>
<tr>
<td>ENG 105</td>
<td>Writing: An Accelerated Course¹ and,</td>
<td>(3)</td>
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<tr>
<td></td>
<td>Global Studies Humanities/Fine Arts²</td>
<td></td>
</tr>
<tr>
<td>MAT 146</td>
<td>Contemporary College Mathematics¹ OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra¹</td>
<td>(3)</td>
</tr>
<tr>
<td>COM 254</td>
<td>Introduction to Intercultural Communication¹</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Foreign Language¹</td>
<td></td>
</tr>
<tr>
<td></td>
<td>One Study Abroad/Overseas Experience course</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(HRS 200, IES 235 or other Study Abroad course</td>
<td></td>
</tr>
<tr>
<td></td>
<td>from a non-KCTCS accredited higher education</td>
<td></td>
</tr>
<tr>
<td></td>
<td>institution)</td>
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</tr>
<tr>
<td></td>
<td>Global Studies Heritage¹</td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td>Global Studies Humanities/Fine Arts²</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Computer/Digital Literacy¹</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Global Studies Natural Science/Business¹</td>
<td>(3)</td>
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<tr>
<td>GBS 290</td>
<td>Global Studies Capstone Course</td>
<td>3</td>
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</table>

**Total** 62-64

¹ General Education
² Select from Global Studies Humanities/Fine Arts list.
³ Students who pass the computer/digital literacy exam in lieu of completing an approved computer/digital literacy course must take an additional three (3) credits of Global Studies credit from the approved Global Studies course lists.
⁴ Select from Global Studies Heritage list.
⁵ Select from Global Studies Natural Science list.
⁶ Select from Global Studies Social Interaction list.

**Certificate**

**Global Studies - 3020013010**

(Offered at 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>
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<tr>
<td></td>
<td>Foreign Language</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Global Studies Heritage</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Global Studies Humanities/Fine Arts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Global Studies Natural Science/Business</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Global Studies Social Interaction</td>
<td></td>
</tr>
</tbody>
</table>

**Total** 19

¹ Select from Global Studies Humanities/Fine Arts list.
² Select from Global Studies Heritage list.
³ Select from Global Studies Natural Science list.
⁴ Select from Global Studies Social Interaction list.

**Graphic Design and Library Technology**

The Graphic Design and Library Technology program prepares students for careers in various industries utilizing cutting-edge technology within graphic design, video game design, and library professions. Students can choose from AAS degrees in three tracks and certificates in four areas.

The Graphic Design track provides the concepts and skills needed to create and produce design projects such as brochures, flyers, newsletters, logos, product packaging, photo restorations and manipulations, multimedia presentations, simple illustrations, and web sites using industry-standard techniques and graphic design applications. The courses within the Graphic Design track will assist with preparation for Adobe Certifications. A two-year AAS degree is available in Graphic Design, and a 15-hour certificate is also offered.

The Library Information Technology (LIT) track prepares graduates for paraprofessional library work, and the courses in this track may be used to meet Kentucky public library certification requirements. A two-year AAS degree is offered in LIT, and a 15-hour certificate is also available. This certificate prepares students for paraprofessional jobs in libraries. Upon completion of the academic certificate, students will be able to perform basic library reference services using print and online sources, plan and produce library services and programs, demonstrate information literacy skills, and describe the role of libraries as agencies for information services.

The Video Game Design track prepares students to design, develop, and market digital games and simulations. This track focuses on artistic and multimedia game design and development. A two-year AAS degree is available in Video Game Design, and a 15-hour certificate is also offered. A 12-hour Digital Video certificate is also available, and provides skills in digital video editing and visual effects.

All Library Information Technology, Graphic Design, Video Game Design, and Digital Video courses are available as web-based distance learning courses. Students can complete the degree or certificate 100% online.

**Associate in Applied Science**

**Graphic Design and Library Technology - 1108017019**

(Offered at BLC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I*</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II*</td>
<td>3</td>
</tr>
<tr>
<td>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>
</tr>
<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>
<td></td>
</tr>
<tr>
<td>COE 199</td>
<td>Coop Education OR</td>
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</tr>
<tr>
<td>IMD 271</td>
<td>Internship</td>
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**Subtotal** 21

**Core Content:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMD 100</td>
<td>Digital Information and Communications Technologies</td>
<td>3</td>
</tr>
<tr>
<td>IMD 133</td>
<td>Beginning Web Design</td>
<td></td>
</tr>
<tr>
<td>IMD 126</td>
<td>Introduction to Desktop Publishing</td>
<td></td>
</tr>
<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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</table>

**Subtotal (General Education & Core Content)** 39

* Satisfies General Education requirement for the AAS degree
### Video Game Design Track - 110801702
*(Offered at BLC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
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<tbody>
<tr>
<td>IMD 127</td>
<td>Vector Design with Adobe Illustrator</td>
<td>3</td>
</tr>
<tr>
<td>IMD 128</td>
<td>Raster Design with Adobe Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>IMD 180</td>
<td>Intermediate Web Design</td>
<td>3</td>
</tr>
<tr>
<td>IMD 226</td>
<td>Advanced Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>IMD 280</td>
<td>Portfolio Practicum: Graphic Design</td>
<td>3</td>
</tr>
<tr>
<td>IMD 277</td>
<td>Typography</td>
<td>3</td>
</tr>
<tr>
<td>IMD 228</td>
<td>Advanced Photoshop OR</td>
<td>3</td>
</tr>
<tr>
<td>IMD 229</td>
<td>Advanced Illustrator</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>21</strong></td>
</tr>
</tbody>
</table>

**Subtotal: 21**

### Library Information Technology Track - 110801704
*(Offered at BLC)*

**Available Completely Online**

- **LIT 115**  Introduction to Reference Services ................................ 3
- **LIT 124**  Library Administration .................................................... 3
- **LIT 132**  Library Technical Services ................................................ 3
- **LIT 243**  Library Services for Children OR ......................................... 3
- **LIT 245**  Library Services for Young Adults OR .................................... 3
- **LIT 247**  Library Services for Adults **.............................................. 3
- **IMD 210**  Microsoft Office Applications ........................................... 3
- **LIT 285**  History of Libraries ............................................................ 3
- **LIN 175**  Information Literacy ............................................................ 3
- **LIT 299**  Selected Topics in Library Information Management (may be repeated for up to 6 hours) ........................................... 1-3

**Choose a total of 9 hours from the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</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 **</td>
<td>3</td>
</tr>
<tr>
<td>IMD 210</td>
<td>Microsoft Office Applications</td>
<td>3</td>
</tr>
<tr>
<td>LIT 285</td>
<td>History of Libraries</td>
<td>3</td>
</tr>
<tr>
<td>LIN 175</td>
<td>Information Literacy</td>
<td>3</td>
</tr>
</tbody>
</table>
| LIT 299     | Selected Topics in Library Information Management (may be repeated for up to 6 hours) ........................................... 1-3
| **Total**   |                                                                              | **21**|

**Subtotal: 21**

### Video Game Design Track - 110801705
*(Offered at BLC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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</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/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><strong>Video Game Design Track Course</strong></td>
<td>3</td>
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</tbody>
</table>

**Choose from Video Game Design Track Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>ENG 203</td>
<td>Business Writing</td>
<td>3</td>
</tr>
<tr>
<td>IMD 180</td>
<td>Intermediate Web Design with Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>IMD 240</td>
<td>Multimedia Development for the Web</td>
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</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><strong>Total</strong></td>
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</table>

**Digital Video – 1108013049
*(Offered at BLC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMD 128</td>
<td>Raster Design with Adobe Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>IMD 250</td>
<td>Digital Video Editing I</td>
<td>3</td>
</tr>
<tr>
<td>IMD 255</td>
<td>Digital Video Editing II</td>
<td>3</td>
</tr>
<tr>
<td>IMD 258</td>
<td>Visual Effects for Video</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
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</tr>
</tbody>
</table>

**Graphic Design – 1108013029
*(Offered at BLC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMD 115</td>
<td>Introduction to Graphic Design</td>
<td>3</td>
</tr>
<tr>
<td>IMD 126</td>
<td>Introduction to Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>IMD 127</td>
<td>Vector Design with Adobe Illustrator</td>
<td>3</td>
</tr>
<tr>
<td>IMD 128</td>
<td>Raster Design with Adobe Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>IMD 226</td>
<td>Advanced Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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<td><strong>15</strong></td>
</tr>
</tbody>
</table>

**Video Game Design – 1108013059
*(Offered at BLC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMD/CIT124</td>
<td>Introduction to Game Development</td>
<td>3</td>
</tr>
<tr>
<td>IMD/CIT221</td>
<td>Computer Graphics</td>
<td>3</td>
</tr>
<tr>
<td>IMD/CIT222</td>
<td>3D Modeling for Video Games</td>
<td>3</td>
</tr>
<tr>
<td>IMD/CIT223</td>
<td>Computer Animation</td>
<td>3</td>
</tr>
<tr>
<td>IMD/CIT273</td>
<td>Game Production</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

**Certificate**

### Library Information Technology Track - 1108013019
*(Offered at BLC)*

**Required:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
</table>
| LIT 115     | Introduction to Reference Services ................................................................ 3
| LIN 175     | Information Literacy                                                         ................................................................ 3

**Students will select one course from each of the following groups:**

1. **Library Procedures**

   - **LIT 124**  Library Administration OR .................................................... 3
   - **LIT 132**  Library Technical Services .................................................... 3

2. **Library Services**

   - **LIT 120**  Readers’ Advisory Services .................................................... 3
   - **LIT 243**  Library Services for Children OR ........................................... 3
   - **LIT 245**  Library Services for Young Adults OR ...................................... 3
   - **LIT 247**  Library Services for Adults **................................................ 3

3. **Library Information Technology Elective**

   - **LIT elective: any LIT course above LIT 115 ......................................... 3

**Total: 15**

**Digital Video – 1108013049
*(Offered at BLC)*

- **IMD 128**  Raster Design with Adobe Photoshop ......................................... 3
- **IMD 250**  Digital Video Editing I ........................................................... 3
- **IMD 255**  Digital Video Editing II .......................................................... 3
- **IMD 258**  Visual Effects for Video .......................................................... 3

**Total: 12**

**Graphic Design – 1108013029
*(Offered at BLC)*

- **IMD 115**  Introduction to Graphic 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: 15**

**Video Game Design – 1108013059
*(Offered at BLC)*

- **IMD/CIT124**  Introduction to Game Development ........................................... 3
- **IMD/CIT221**  Computer Graphics .................................................................... 3
- **IMD/CIT222**  3D Modeling for Video Games .................................................. 3
- **IMD/CIT223**  Computer Animation ................................................................... 3
- **IMD/CIT273**  Game Production ........................................................................ 3

**Total: 15**
### 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, HZC, JFC, SEC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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<tbody>
<tr>
<td>HST 101</td>
<td>Health Care Basic Skills 1 OR</td>
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<tr>
<td>HST 104</td>
<td>Health Care Basic Skills I with Clinical</td>
<td>3.5</td>
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<tr>
<td>HST 102</td>
<td>Health Care Delivery &amp; Management</td>
<td>3</td>
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<td>HST 103</td>
<td>Health Care Communication</td>
<td>2</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology</td>
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**Health Care Foundations-Intermediate - 5139023219**
*(Offered at JFC)*

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<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>
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<tr>
<td>HST 102</td>
<td>Health Care Delivery &amp; Management</td>
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<tr>
<td>HST 103</td>
<td>Health Care Communication</td>
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<td>Medical Terminology</td>
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<tr>
<td>HST 121</td>
<td>Pharmacology</td>
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<td>HST 122</td>
<td>Clinical Pathophysiology</td>
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<td>HST 123</td>
<td>Health Care Basic Skills II</td>
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### 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, MDC)*

<table>
<thead>
<tr>
<th>Core:</th>
<th>Description</th>
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<tbody>
<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
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<td>AHS 115</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
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<td>BIO 135</td>
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**Clinician/Practitioner Consultant Track – 510707302**
*(Offered at HZC, MDC)*

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<thead>
<tr>
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<th>Description</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>
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<tr>
<td>HCS 220</td>
<td>Working with Health IT Systems</td>
<td>1</td>
</tr>
<tr>
<td>HCS 290</td>
<td>Leadership in Health IT</td>
<td>1</td>
</tr>
<tr>
<td>HCS 295</td>
<td>Health IT Capstone</td>
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**Implementation Manager Track – 510707303**
*(Offered at HZC, MDC)*

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<th>Description</th>
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<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>
</tr>
<tr>
<td>HCS 145</td>
<td>Health IT Terminology</td>
<td>1</td>
</tr>
<tr>
<td>HCS 150</td>
<td>Health IT Analysis &amp; Quality</td>
<td>2</td>
</tr>
<tr>
<td>HCS 280</td>
<td>Project Management &amp; Teams</td>
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<tr>
<td>HCS 290</td>
<td>Leadership in Health IT</td>
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<td>HCS 295</td>
<td>Health IT Capstone</td>
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<tr>
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**Implementation Support Specialist Track – 510707305**
*(Offered at HZC, MDC)*

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<td>HCS 145</td>
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<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>
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<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>
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<td>1</td>
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**Practice Workflow/Redesign Specialist Track – 510707301**
*(Offered at HZC, MDC)*

<table>
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<td>Culture of Healthcare</td>
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<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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<td>HCS 165</td>
<td>Health Management Systems</td>
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<td>HCS 180</td>
<td>Usability &amp; Human Factors</td>
<td>1</td>
</tr>
<tr>
<td>HCS 200</td>
<td>Health IT Computer Systems</td>
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</tr>
<tr>
<td>HCS 295</td>
<td>Health IT Capstone</td>
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**Technical Software Support Specialist Track – 510707304**
*(Offered at HZC, MDC)*

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<tbody>
<tr>
<td>HCS 145</td>
<td>Health IT Terminology</td>
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<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>
</tr>
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<td>HCS 295</td>
<td>Health IT Capstone</td>
<td>1</td>
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<tr>
<td><strong>Total</strong></td>
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**Training Specialist Track – 510707306**
*(Offered at HZC, MDC)*

<table>
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<td>HCS 100</td>
<td>Public Health Care in the US</td>
<td>2</td>
</tr>
<tr>
<td>HCS 110</td>
<td>Culture of Healthcare</td>
<td>1</td>
</tr>
<tr>
<td>HCS 145</td>
<td>Health IT Terminology</td>
<td>1</td>
</tr>
<tr>
<td>HCS 165</td>
<td>Health Management Systems</td>
<td>2</td>
</tr>
<tr>
<td>HCS 180</td>
<td>Usability &amp; Human Factors</td>
<td>1</td>
</tr>
<tr>
<td>HCS 260</td>
<td>Health IT Instructional Design</td>
<td>1</td>
</tr>
<tr>
<td>HCS 281</td>
<td>Health IT Customer Service</td>
<td>1</td>
</tr>
<tr>
<td>HCS 295</td>
<td>Health IT Capstone</td>
<td>1</td>
</tr>
<tr>
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Healthcare Facilities Leadership

The Healthcare Facilities Leadership program prepares students for a highly innovative and rapidly changing professional career as a Healthcare Facilities Leader/Manager. Students receive an education in office and hospital procedures, client relations and communications, leadership, finances, energy management, public speaking, construction, infection control, maintenance operations, and codes and compliance. This knowledge can be used to gain employment locally, regionally, or nationally. Overall, the students in this program receive an education that provides marketable skills, preparing them to be employed in a high demand profession.

**Associate in Applied Science**

**Healthcare Facilities Leadership – 4604017019**

(Offered at OWC)

**General Education Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra OR</td>
<td>3</td>
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<tr>
<td>MAT 126</td>
<td>Technical Algebra and Trigonometry OR</td>
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<td>MAT 146</td>
<td>Contemporary College Math</td>
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<tr>
<td>PHI 110</td>
<td>Medical Ethics</td>
<td>3</td>
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<tr>
<td>HFL 100</td>
<td>Introduction to Healthcare Facility Management</td>
<td>3</td>
</tr>
<tr>
<td>HFL 110</td>
<td>Introduction to Healthcare Industry</td>
<td>2</td>
</tr>
<tr>
<td>HFL 120</td>
<td>Infection Control and Prevention</td>
<td>2</td>
</tr>
<tr>
<td>HFL 130</td>
<td>Compliance, Codes, and Standards I</td>
<td>3</td>
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<tr>
<td>HFL 140</td>
<td>Maintenance and Operations I</td>
<td>3</td>
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<tr>
<td>HFL 150</td>
<td>Planning, Design, and Construction I</td>
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<td>CHE 170</td>
<td>General College Chemistry I AND</td>
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<td>CHE 175</td>
<td>General College Chemistry I Lab OR</td>
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<tr>
<td>BIO 112</td>
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<tr>
<td>BIO 113</td>
<td>Introduction to Biology Lab</td>
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<tr>
<td>COM 181</td>
<td>Basic Public Speaking</td>
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<tr>
<td>CAD 100</td>
<td>Introduction to Computer Aided Design (Digital Literacy)</td>
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<tr>
<td>HFL 240</td>
<td>Maintenance and Operations II</td>
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<td>HFL 250</td>
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<td>HFL 270</td>
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<tr>
<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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<tr>
<td>BAS 212</td>
<td>Introduction to Financial Management</td>
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<td>ECO 201</td>
<td>Principles of Microeconomics</td>
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<tr>
<td>BAS 288</td>
<td>Personal and Organizational Leadership</td>
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**Total Credits** 62-63

**Diploma**

**Healthcare Facilities Leadership - 4604014029**

(Offered at OWC)

**General Education Requirements**

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<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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<tr>
<td>HFL 140</td>
<td>Maintenance and Operations I</td>
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<td>HFL 150</td>
<td>Planning, Design, and Construction I</td>
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<td>ECO 201</td>
<td>Principles of Microeconomics</td>
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**Digital Literacy** 0-3

**Total Credits** 43-46

Certificate

**Healthcare Facilities Foundation - 4604013119**

(Offered at OWC)

<table>
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<tr>
<th>Course</th>
<th>Title</th>
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<tr>
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<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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**Total Credits** 16

Health Information Technology

This program prepares the graduate to take an active role in the field of health information management. Graduates will interact with physicians, health professionals, and financial and administrative staffs to ensure the protection of information systems. Graduates will help determine health information budgets, resources and policies, utilizing current and accurate data. The curriculum includes course work in the supporting sciences and general education areas. Classroom instruction is supplemented with learning experiences in the campus laboratory and in area health care facilities. Students enrolled in the Health Information Program are required to achieve a minimum grade of “C” in each course in the program.

Health Information Technicians are employed in hospitals, medical clinics, nursing homes, other health care facilities and industry. Graduates with the AAS degree are qualified to write the American Health Information Management Association’s / Commission on Certification for Health Informatics and Information Management (CCHIIM) Registered Health Information Technician examination and the CCA coding examination. Graduates of the medical records coding specialist certificate may write the American Health Information Management Association’s CCA coding examination and the American Academy of Professional Coders’ CPC-A (and others as qualified) coding examinations.

For students completing the AAS in Health Information Technology, documentation of computer literacy as defined by KCTCS is required prior to enrolling in the first HIT course.

The Associate in Applied Science Degree Health Information Technology is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM) at each college. Additional information may be found at CAHIIM’s website URL: [http://cahiim.org](http://cahiim.org).

Associate in Applied Science

**Health Information Technology - 5107077019**

(Offered at GTH, HZC, JFC)

**General Education Requirements**

<table>
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<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
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</tr>
<tr>
<td>BIO 135</td>
<td>Human Anatomy and Physiology with laboratory OR</td>
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</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy and Physiology I AND</td>
<td>(4)</td>
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<tr>
<td>BIO 139</td>
<td>Human Anatomy and Physiology II</td>
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<tr>
<td>MAT 110</td>
<td>Applied Mathematic OR</td>
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<td>PSY 110</td>
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<td>SOC 101</td>
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**Heritage/Humanities** 3

**Total Credits** 43-46

**Subtotal** 16-20

(Offered at GTW, HZC, JFC)
Technical Course Requirements:

- CIT 105 Introduction to Computers OR .................................... 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 Advanced Microsoft Applications .............................. 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

Certificate

HIT Coding – 5107073089

(Offered at 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 & Physiology I AND .......................... 4
- BIO 139 Human Anatomy & 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 OR ................................................. 4
- HIT 2151 Clinical Practicum I .................................................... 2

Total Credits 31-37

Release of Information Data Specialist – 5107073099

(Offered at 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 & 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

Total Credits 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 wishing to broaden skills for career enhancement. Graduates will possess marketable skills sets for direct services as well as the foundation needed to understand current health care delivery. Many of the general education and core courses are required for completion of varied professional health programs. Examples include diagnostic medical sonography, medical assisting, nursing, physical therapy assistant, radiography, respiratory care, and surgical technology. The HST provides a smooth transition or career pathway to an Allied Health or nursing selective admission program once a student is accepted.

A grade of “C” or better is required in each biological science and quantitative reasoning course.

Associate in Applied Science

Health Science Technology – 5100007019

(Offered at ASC, BSC, BLC, ELC, GTW, HEC, HPC, JFC, MDC, WKC)

General Education

- 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
- Social/Behavioral Sciences .................................................... 3
- Heritage/Humanities .............................................................. 3
- Oral Communications ........................................................... 3

Subtotal 25-29

Technical Core:

- CLA 131 Medical Terminology from Greek or Latin OR ............. 3
- AHS 115 Medical Terminology OR .......................................... 3
- MIT 103 Medical Office Terminology OR ................................... 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
Phlebotomy for the Healthcare Worker
Pharmacy Technician I

Medical Coding
Advanced Nursing Assistant

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 103 OST 110 PLW 140
- AHS 203 COM 181 HST 104 PHY 152 TEC 200
- BAS 120 COM 252 HST 121 PHY 171 WPP 200

155
**Heavy Equipment Operation**

Designed to instruct students in the safe operation of heavy equipment, e.g., bulldozers, backhoes, front-end loaders, hydraulic excavators and graders. Instruction in digging, ditching, sloping, stripping, grading, back filling, clearing trees and rubble, and foundation excavating is provided as well as instruction in the proper care and maintenance of equipment.

**Diploma**

**Operating Engineer - 490204029**

*(Offered at HZC)*

**General Education:**

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

**Technical Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIT 103</td>
<td>Preventive Maintenance Lab</td>
</tr>
<tr>
<td>HEO 125</td>
<td>Motor Grader Operator</td>
</tr>
<tr>
<td>HEO 130</td>
<td>Power Shovel Backhoe</td>
</tr>
<tr>
<td>HEO 131</td>
<td>Bulldozer Operator</td>
</tr>
<tr>
<td>HEO 132</td>
<td>Utility Tractor Loader</td>
</tr>
<tr>
<td>HEO 133</td>
<td>Motor Grader Operator</td>
</tr>
<tr>
<td>HEO 134</td>
<td>Hydraulic Excavator</td>
</tr>
<tr>
<td>HEO 141</td>
<td>Heavy Equipment Operating I</td>
</tr>
<tr>
<td>HEO 211</td>
<td>Heavy Equipment Operator II</td>
</tr>
<tr>
<td>HEO 215</td>
<td>Heavy Equipment Operations</td>
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<tr>
<td>HEO 225</td>
<td>Special Problems II</td>
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<tr>
<td>HEO 231</td>
<td>Heavy Equipment Operator III</td>
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<tr>
<td>ISX 100</td>
<td>Industrial Safety</td>
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</table>

**Total Technical Credits**

**Total Credits**

---

**Certificates**

**Backhoe Operator - 4902023069**

*(Offered at HZC, WKC)*

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>HEO 130</td>
<td>Power Shovel Backhoe</td>
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<tr>
<td>DIT 103</td>
<td>Preventive Maintenance Lab</td>
</tr>
<tr>
<td>HEO 125</td>
<td>Special Problems I</td>
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</table>

**Total Credits**

---

**Bulldozer Operator- 4902023029**

*(Offered at HZC, WKC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HEO 131</td>
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<tr>
<td>DIT 103</td>
<td>Preventive Maintenance Lab</td>
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<tr>
<td>HEO 125</td>
<td>Special Problems I</td>
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</table>

**Total Credits**

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**Front-End Loader Operator - 4902023079**

*(Offered at HZC, WKC)*

<table>
<thead>
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<tbody>
<tr>
<td>HEO 132</td>
<td>Utility Tractor Loader</td>
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<tr>
<td>DIT 103</td>
<td>Preventive Maintenance Lab</td>
</tr>
<tr>
<td>HEO 125</td>
<td>Special Problems</td>
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</table>

**Total Credits**

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**Hydraulic Excavator Operator - 4902023089**

*(Offered at HZC, WKC)*

<table>
<thead>
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<tbody>
<tr>
<td>HEO 134</td>
<td>Hydraulic Excavator</td>
</tr>
<tr>
<td>DIT 103</td>
<td>Preventive Maintenance Lab</td>
</tr>
<tr>
<td>HEO 125</td>
<td>Special Problems</td>
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</table>

**Total Credits**

---

**Motor-Grader Operator - 4902023049**

*(Offered at HZC, WKC)*

<table>
<thead>
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<th>Course</th>
<th>Credits</th>
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</thead>
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<tr>
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<td>Motor Grader Operator</td>
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<tr>
<td>DIT 103</td>
<td>Preventive Maintenance Lab</td>
</tr>
<tr>
<td>HEO 125</td>
<td>Special Problems</td>
</tr>
</tbody>
</table>

**Total Credits**

---

**Helicopter Flight Training**

Professional helicopter pilots are highly trained and competent aircraft operators who are not only responsible for the safety of their passengers and cargo but also for the operation of sophisticated and expensive equipment. Pilots must meet FAA medical standards. Graduates of the Helicopter Flight Training degree program will have completed all academic training required for the Commercial Pilot (Helicopter) and flight instructor certificates. Pilots with a rotorcraft (helicopter) Commercial Pilot Certificate and/or instructor credentials may find employment in a variety of helicopter applications such as corporate flight operations, charter or cargo airlift, agricultural services, surveying, law enforcement, search and rescue, on-demand media, emergency medical evacuation, flight training, or with numerous government agencies or military services. Non-flying positions are also available with the Federal Aviation Administration or other federal, state, and local aviation agencies.

**Associate in Applied Science**

**Helicopter Flight Training – 4901087020**

*(Offered at MDC)*

**General Education:**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking</td>
</tr>
<tr>
<td>GEO 251</td>
<td>Weather &amp; Climate</td>
</tr>
<tr>
<td>Heritage/Humanities</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td>3</td>
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</table>

**Subtotal**

**Technical Core:**

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<th>Credits</th>
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<tbody>
<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
</tr>
<tr>
<td>HFT 101</td>
<td>Private Helicopter Pilot</td>
</tr>
<tr>
<td>HFT 102</td>
<td>Private Pilot Helicopter Flight Lab</td>
</tr>
<tr>
<td>HFT 103</td>
<td>Helicopter Instrument Pilot</td>
</tr>
<tr>
<td>HFT 104</td>
<td>Helicopter Instrument Pilot Lab</td>
</tr>
<tr>
<td>HFT 105</td>
<td>Helicopter Commercial Pilot</td>
</tr>
<tr>
<td>HFT 106</td>
<td>Commercial Helicopter Flight Lab</td>
</tr>
<tr>
<td>HFT 107</td>
<td>Certified Helicopter Flight Instructor</td>
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<tr>
<td>HFT 208</td>
<td>Certified Helicopter Flight Instructor Lab</td>
</tr>
<tr>
<td>HFT 209</td>
<td>Certified Helicopter Flight Instructor Instrument</td>
</tr>
<tr>
<td>HFT 210</td>
<td>Certified Helicopter Flight Instructor Instrument Flight Lab</td>
</tr>
<tr>
<td>COED 198</td>
<td>Co-Ed Practicum</td>
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<tr>
<td>Elective</td>
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<td>Elective</td>
<td></td>
</tr>
</tbody>
</table>

**Total Hours**

---

156
### Certificates

**FAA: Private Pilot Ground School - Helicopter- 4901083120**
*(Offered at MDC)*
- GEO 251 Weather & Climate .................................................. 3
- MAT 150 College Algebra ...................................................... 3
- CIT 105 Introduction to Computers ......................................... 3
- HFT 101 Private Helicopter Pilot ........................................... 4

Total Hours: 13

**FAA: Private Pilot Certification - Helicopter- 4901083130**
*(Offered at MDC)*
- ENG 101 Writing I .......................................................... 3
- HFT 102 Private Pilot Helicopter Flight Lab ................................. 2
- GEO 251 Weather & Climate .................................................. 3
- CIT 105 Introduction to Computers ......................................... 3

Total Hours: 12

**FAA: Instrument Pilot Ground School - Helicopter- 4901083140**
*(Offered at MDC)*
- HFT 102 Private Pilot Helicopter Flight Lab ................................. 2
- HFT 103 Helicopter Instrument Pilot ......................................... 4
- ENG 101 Writing I .......................................................... 3

Total Hours: 10

**FAA: Instrument Pilot Certification - Helicopter- 4901083150**
*(Offered at MDC)*
- COM 181 Basic Public Speaking ........................................... 3
- HFT 102 Private Pilot Helicopter Flight Lab ................................. 2
- HFT 104 Helicopter Instrument Pilot Flight Lab ............................... 2

Total Hours: 12

**FAA: Commercial Pilot Ground School - Helicopter- 4901083160**
*(Offered at MDC)*
- HFT 105 Helicopter Commercial Pilot ....................................... 4
- HFT 104 Helicopter Instrument Pilot Flight Lab ............................... 2
- ENG 101 Writing I .......................................................... 3

Total Hours: 12

**FAA: Commercial Pilot Certificate - Helicopter- 4901083170**
*(Offered at MDC)*
- COM 181 Basic Public Speaking ........................................... 3
- HFT 106 Commercial Helicopter Flight Lab .................................... 2
- HFT 105 Helicopter Commercial Pilot ......................................... 4

Total Hours: 12

**FAA: Certified Flight Instructor Ground - Helicopter- 4901083180**
*(Offered at MDC)*
- COM 181 Basic Public Speaking ........................................... 3
- HFT 106 Commercial Helicopter Flight Lab .................................... 2
- HFT 107 Certified Helicopter Flight Instructor ................................ 4

Total Hours: 12

### Certificates

**FAA: Flight Instructor Instrument Certification- Helicopter- 4901083210**
*(Offered at MDC)*
- GEO 251 Weather & Climate .................................................. 3
- HFT 109 Certified Helicopter Flight Instructor Instrument ............... 4
- ENG 101 Writing I .......................................................... 3

Total Hours: 12

**FAA: Flight Instructor Instrument Ground - Helicopter- 4901083200**
*(Offered at MDC)*
- GEO 251 Weather & Climate .................................................. 3
- HFT 109 Certified Helicopter Flight Instructor Instrument ............... 4

Total Hours: 13

### Historic Preservation Technology

The program will focus on the study of preservation theory coupled with hands-on skill training to meet the needs of entry level individuals and prospective employers involved in the historic preservation field. Researching the background of structures designated as historic properties will enhance the learning experience while applying the Secretary of the Interior’s standards for the rehabilitation of historic structures.

**Certificates**

**Historic Preservation Technology – 3012013019**
*(Offered at JFC)*
- BRX 220 Blueprint Reading for Construction ................................ 3
- ACH 120 Theory and History of Architecture I .......................... 3
- HIS 240 History of Kentucky .................................................. 3
- HPT 100 Introduction to Historic Preservation ................................ 3
- HPT 101 Introduction to Historic Preservation Lab ...................... 2
- ISX 100 Industrial Safety OR ................................................. 3
- ISX 101 Introduction to Industrial Safety .................................... 3

*Technical Electives: Select a minimum of 8 credit hours*
- HPT 120 Traditional Woodworking ............................................ 2
- HPT 200 Masonry Repointing and Repair .................................... 2
- HPT 202 Window Restoration and Repair .................................... 2
- HPT 204 Roof Restoration and Repair ....................................... 2
- HPT 298 Field Experience Practicum ........................................ 2

Total: 25
The Horticulture program provides students with knowledge and skills needed for careers in greenhouse, nursery, and landscape operations. Students acquire practical experience in turf and landscape maintenance, design, plant production, and business management.

**Associate in Applied Science**

**Horticulture - 0106017019**

*(Offered at)*

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

*Subtotal* 15

**Technical Core:**
- Computer/Digital Literacy* ........................................ 0-3
- HRT 110 Nursery Management ........................................ 4
- HRT 120 Turf Management OR ......................................... 4
- HRT 160 Retail Floral Design AND .................................. 4
- HRT 161 Retail Floral Design Lab .................................. 2
- HRT 130 Landscape Maintenance ...................................... 3
- HRT 131 Landscape Maintenance Lab ............................... 2
- HRT 150 Horticulture Business Management ....................... 3
- HRT 210 Landscape Design ............................................. 4
- HRT 240 Greenhouse Management .................................... 4
- HRT 241 Greenhouse Management Lab ................................ 2

*Subtotal* 26-31

*Must meet computer/digital literacy requirement.*

**Business Track - 010601702**

*(Offered at)*

- COE 199 Cooperative Education OR ................................ 2
- COED 198 Practicum .................................................. (2)
- ACT 101 Fundamentals of Accounting I ............................... 3
- BAS 200 Small Business Management ................................ 3
- BMO 170 Introduction to Business Management .................... 3
- OST 215 Office Procedures ............................................ 3
- BAS 267 Introduction to Business Law ................................ 3

*Electives (Horticulture Course List including COE198) .................. 3

*Subtotal* 20

**Total Business Track Credits** 61-66

**Science Track - 010601701**

*(Offered at)*

- 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

**Diploma**

**Landscape Technology - 0106014009**

*(Offered at)*

**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:**
- COE 199 Cooperative Education OR ................................ 6
- COED 198 Practicum .................................................. (6)
- HRT 104 Introduction to Herbaceous Plants ........................... 4
- HRT 108 Introduction to Woody Plants ................................ 4
- HRT 120 Turf Management OR ........................................ 4
- HRT 160 Retail Floral Design AND .................................... 4
- HRT 161 Retail Floral Design Lab .................................... 2
- HRT 130 Landscape Maintenance ........................................ 3
- HRT 131 Landscape Maintenance Lab .................................. 2
- HRT 210 Landscape Design ............................................. 4

*Subtotal* 30-32

**Total** 36-38

*If computer/digital literacy is met by the competency exam, an additional 3 credit hours of general education or program elective must be taken.*

**Ornamental Horticulture - 0106014029**

*(Offered at MYC)*

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

*Subtotal* 6

**Technical:**
- COE 199 Cooperative Education OR ................................ 3
- COED 198 Practicum .................................................. (3)
- HRT 104 Introduction to Herbaceous Plants ........................... 4
- HRT 108 Introduction to Woody Plants ................................ 4
- HRT 110 Nursery Management .......................................... 4
- HRT 120 Turf Management OR ........................................ 4
- HRT 160 Retail Floral Design AND .................................... 4
- HRT 161 Retail Floral Design Lab .................................... (2)
- HRT 130 Landscape Maintenance ........................................ 3
- HRT 131 Landscape Maintenance Lab .................................. 2
- HRT 210 Landscape Design ............................................. 4

*Subtotal* 48-50

**Total** 54-56

**Certificates**

**Greenhouse Operations - 0106013029**

*(Offered at MYC)*

- HRT 240 Greenhouse Management .................................... 4
- HRT 241 Greenhouse Management Lab ................................ 2

*Electives (Horticulture Course List) ..................................... 6

**Total Credits** 12
### Horticulture Course List

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>HRT 104</td>
<td>Introduction to Woody Plants</td>
<td>4</td>
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<tr>
<td>HRT 104</td>
<td>Introduction to Woody Plants (4)</td>
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</tr>
<tr>
<td>HRT 120</td>
<td>Turf Management</td>
<td>4</td>
</tr>
<tr>
<td>HRT 160</td>
<td>Retail Floral Design AND</td>
<td>4</td>
</tr>
<tr>
<td>HRT 161</td>
<td>Retail Floral Design Lab</td>
<td>2</td>
</tr>
<tr>
<td>HRT 130</td>
<td>Landscape Maintenance</td>
<td>3</td>
</tr>
<tr>
<td>HRT 131</td>
<td>Landscape Maintenance Lab</td>
<td>2</td>
</tr>
<tr>
<td>Electives</td>
<td>(Horticulture Course List including COE198)</td>
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</tr>
</tbody>
</table>

**Total Credits:** 18

### Human Services

This program prepares individuals for entry level positions in agencies and institutions which provide social, community, educational and mental health services. The curriculum provides an opportunity for the student to develop the knowledge and skills necessary for entry level employment. Included in the curriculum is a core of human services courses, general education courses, and technical courses with a specific human services emphasis. Application of human services principles and skills is provided through a clinical experience in an appropriate setting.

Upon completion of the program the graduate is prepared to seek employment in various areas which may include child care facilities, mental health settings, chemical dependency settings, hospitals, educational institutions, correctional facilities, geriatric settings, child and youth centers, and social service agencies. Students obtain a “C” or better in all core classes (HMS 101, HMS 102, HMS 103, HMS 104 and (HMS 248 OR HMS 251) and also in the two technical courses that have been selected to complete the core requirements.

### Associate in Applied Science

**Human Services - 4400007000**

(Offered at BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC)

#### General Education:

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
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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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</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>PSY 110</td>
<td>General Psychology</td>
<td>3</td>
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<tr>
<td>PSY 223</td>
<td>Developmental Psychology</td>
<td>3</td>
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<tr>
<td>SOC 101</td>
<td>Introduction to Sociology</td>
<td>3</td>
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<tr>
<td>HMS 101</td>
<td>Values of Human Services in a Contemporary Society</td>
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<tr>
<td>HMS 102</td>
<td>Theories and Techniques in Human Services</td>
<td>3</td>
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<tr>
<td>HMS 104</td>
<td>Group Dynamics for Human Services</td>
<td>3</td>
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<tr>
<td>HMS 248</td>
<td>Foundational Skills in Para-Professional Practice OR</td>
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<tr>
<td>HMS 251</td>
<td>Clinical Practice in Human Services OR</td>
<td>3</td>
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<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
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**Total Credits:** 27

#### Technical Core:

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<tr>
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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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<td>HMS 102</td>
<td>Values of Human Services in a Contemporary Society</td>
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<td>HMS 103</td>
<td>Theories and Techniques in Human Services</td>
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<td>HMS 104</td>
<td>Group Dynamics for Human Services</td>
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<tr>
<td>HMS 248</td>
<td>Foundational Skills in Para-Professional Practice OR</td>
<td></td>
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<tr>
<td>HMS 251</td>
<td>Clinical Practice in Human Services OR</td>
<td></td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
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**Total Credits:** 33

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**Greenhouse Production – 010613019**

(Offered at MYC)

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<tbody>
<tr>
<td>HRT 131</td>
<td>Landscape Maintenance Lab</td>
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<tr>
<td>HRT 130</td>
<td>Landscape Maintenance</td>
<td>3</td>
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<td>(Horticulture Course List including COE198)</td>
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**Total Credits:** 15-18

**Landscape Installation - 010613049**

(Offered at MYC)

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<tr>
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<td>Introduction to Woody Plants</td>
<td>4</td>
</tr>
<tr>
<td>HRT 104</td>
<td>Introduction to Woody Plants (4)</td>
<td></td>
</tr>
<tr>
<td>HRT 130</td>
<td>Landscape Maintenance</td>
<td>3</td>
</tr>
<tr>
<td>HRT 131</td>
<td>Landscape Maintenance Lab</td>
<td>2</td>
</tr>
<tr>
<td>Electives</td>
<td>(Horticulture Course List including COE198)</td>
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</tbody>
</table>

**Total Credits:** 12

**Landscape Planning - 010613059**

(Offered at MYC)

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>HRT 104</td>
<td>Introduction to Woody Plants</td>
<td>4</td>
</tr>
<tr>
<td>HRT 108</td>
<td>Introduction to Woody Plants (4)</td>
<td></td>
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<tr>
<td>HRT 130</td>
<td>Landscape Maintenance</td>
<td>3</td>
</tr>
<tr>
<td>HRT 131</td>
<td>Landscape Maintenance Lab</td>
<td>2</td>
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<tr>
<td>HRT 210</td>
<td>Landscape Design</td>
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**Total Credits:** 22

**Lawn Maintenance - 010613069**

(Offered at MYC)

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<tbody>
<tr>
<td>HRT 120</td>
<td>Turf Management</td>
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<td>HRT 130</td>
<td>Landscape Maintenance</td>
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<td>HRT 131</td>
<td>Landscape Maintenance Lab</td>
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**Total Credits:** 10

**Nursery Operations - 010613089**

(Offered at MYC)

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</thead>
<tbody>
<tr>
<td>HRT 108</td>
<td>Introduction to Woody Plants</td>
<td>4</td>
</tr>
<tr>
<td>HRT 110</td>
<td>Nursery Management</td>
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<tr>
<td>Electives</td>
<td>(Horticulture Course List including COE198)</td>
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</table>

**Total Credits:** 13

**Nursery Production - 010613079**

(Offered at MYC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HRT 108</td>
<td>Introduction to Woody Plants</td>
<td>4</td>
</tr>
<tr>
<td>HRT 110</td>
<td>Nursery Management</td>
<td>4</td>
</tr>
<tr>
<td>HRT 240</td>
<td>Greenhouse Management</td>
<td>4</td>
</tr>
<tr>
<td>Electives</td>
<td>(Horticulture Course List including COE198)</td>
<td>8</td>
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</tbody>
</table>

**Total Credits:** 20
Technical Courses: Choose six hours

CRJ 100 Introduction to Criminal Justice ........................................... 3
CRJ 208 Delinquency and the Juvenile Justice System ........................... 3
EDP 203 Teaching Exceptional Learners in Regular Classrooms ............... 3
FAM 252 Introduction to Family Science .......................................... 3
FAM 253 Human Sexuality: Development, Behavior and Attitudes .......... 3
HMS 210 Drugs, Society, and Human Behavior .................................. 3
HMS/SWK 200 Dynamics of Human Behavior ..................................... 3
HMS/SWK 211/255 Introduction to Addictions ...................................... 3
HMS/SWK 212/260 Crisis Intervention .............................................. 3
HMS/SWK 220 Cultural Diversity in Human Services ............................ 3
HMS/SWK 235/250 Teaching Persons with Mental Retardation ............... 3
HMS 240 Service Coordination for Human Services Professionals ......... 3
HMS 245 Psychiatric Mental Health Technician .................................. 3
HMS 265 Working with Disabilities in Human Services ........................ 3
HMS 299 Special Topics in Human Services ...................................... 1-3
IEC 130 Early Childhood Development ............................................ 3
IEC 200 Child Guidance .................................................................... 3
MNA 100 Medicaid Nurse Aide OR ............................................. 3
NAA 100 Nursing Assistant Skills I .................................................. 3
PSY 180 Human Relations ............................................................. 3
PSY 185 Human Potential ............................................................... 3
PSY 230 Psychosocial Aspects of Death and Dying ............................ 3
SED 101 American Sign Language I .................................................. 3
SED 102 American Sign Language II ................................................ 3
SOC 220 The Community ................................................................. 3
SWK 124 Introduction to Social Services .......................................... 3
SWK 222 Development of Social Welfare ......................................... 3
SWK 180 Introduction to Gerontology .............................................. 3
SWK 269 Juvenile Delinquency ........................................................ 3
SWK 275 The Family ...................................................................... 3
SWK 280 Methods of Working with the Aged ..................................... 3
SWK 281 Psychology of Aging ........................................................ 3

Murray State University Courses:

SWK 120 Group Preparation and Selection for Foster and Adoptive Parents .... 2
SWK 121 Child Sexual Abuse for Foster and Adoptive Parents .............. 2

Eastern Kentucky University Courses:

COR 106 Foundations of Youth Work ............................................... 3
COR 423* Reclaiming Our Prodigal Sons and Daughters ....................... 3
COR 423* Life Space Crisis Intervention .......................................... 3

* Special Topics course at EKU; different section numbers indicate different topic content

Eastern Kentucky University Courses:

SWK 106 Food Benefits ................................................................. 3

Certificates

Aging Services – 4400003049
(Offers at BLC, BSC, ELC, HEC, HPC, HZC, SEC)

HMS 102 Values of Human Services in a Contemporary Society ........... 3
HMS 265 Working with Disabilities in Human Services ........................ 3
MNA 100 Medicaid Nurse Aide OR ............................................. 3
NAA 100 Nursing Assistant Skills I .................................................. 3
SWK 275 The Family OR ............................................................... 3
FAM 252 Introduction to Family Science ........................................ 3
SWK 281 Psychology of Aging ........................................................ 3

Total Credits 18

Client Service Coordinator – 4400003079
(Offers at BLC, BSC, ELC, HEC, HPC, HZC, MDC)

HMS 101 Human Services Survey .................................................. 3
HMS 102 Values of Human Services in a Contemporary Society ........... 3
HMS 103 Theories and Techniques in Human Services ........................ 3
HMS 104 Group Dynamics ............................................................. 3
HMS/SWK 260 Crisis Intervention .................................................. 3
HMS 240 Service Coordination for Human Services Professionals ....... 3
HMS 248 Foundational Skills in Para-Professional Practice OR ......... 3
SWK 275 The Family OR ............................................................... 3
FAM 252 Introduction to Family Science ........................................ 3

Total Credits 24

Direct Support Work - 4400003039
(Offers at BLC, BSC, ELC, GTW, HPC, HZC, SEC)

Avialable Completely Online

HMS 102 Values of Human Services in a Contemporary Society ........... 3
HMS 265 Working with Disabilities in Human Services ........................ 3
MNA 100 Medicaid Nurse Aide OR ............................................. 3
NAA 100 Nursing Assistant Skills I .................................................. 3
SWK 275 The Family OR ............................................................... 3
FAM 252 Introduction to Family Science ........................................ 3

Electives – choose one course from the following list:

HMS/SWK 235/250 Teaching Persons with Mental Retardation ............... 3
SWK 180 Introduction to Gerontology ............................................ 3
PSY 230 Psychosocial Aspects of Death and Dying ............................ 3
HMS/SWK 200 Dynamics of Human Behavior .................................. 3

Total Credits 15

Psychiatric Mental Health Technician –4400003069
(Offers at BLC, BSC, ELC, HEC, HPC, MDC, SEC)

HMS 101 Human Services Survey .................................................. 3
HMS 102 Values of Human Services in a Contemporary Society ........... 3
HMS 103 Theories and Techniques in Human Services ........................ 3
HMS 104 Group Dynamics ............................................................. 3
HMS 210 Drugs, Society and Human Behavior .................................. 3
MNA 100 Medicaid Nurse Aide OR ............................................. 3
NAA 100 Nursing Assistant Skills I .................................................. 3
PSY 230 Psychosocial Aspects of Death and Dying ............................ 3

Total Credits 27

Technical Electives:

HMS/SWK 211/255 Introduction to Addictions .................................. 3
HMS/SWK 212/260 Crisis Intervention .............................................. 3
HMS/SWK 200 Dynamics of Human Behavior .................................. 3
HMS/SWK 220 Cultural Diversity in Human Services ........................... 3
HMS 265 Working with Disabilities in Human Services ....................... 3
SWK 180 Introduction to Gerontology ............................................ 3
SWK 276 Criminology ................................................................. 3
SWK 281 Psychology of Aging ........................................................ 3

Recovery Coach – 4400003089
(Offers at BLC, BSC, ELC, GTW, HEC, HPC, HZC, SEC, WKC)

HMS 101 Human Services Survey .................................................. 3
HMS 102 Values of Human Services in a Contemporary Society ........... 3
HMS 103 Theories and Techniques in Human Services ........................ 3
HMS 104 Group Dynamics ............................................................. 3
HMS 210 Drugs, Society and Human Behavior .................................. 3
HMS/SWK 211/255 Introduction to Addictions .................................. 3
HMS/SWK 212/260 Crisis Intervention .............................................. 3
SWK 275 The Family OR ............................................................... 3
FAM 252 Introduction to Family Science ........................................ 3

Total Credits 24
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

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>
</tr>
<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>
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<tr>
<td></td>
<td>Oral Communications</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Social/Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Heritage/Humanities</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>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 Analysis</td>
<td>4</td>
</tr>
<tr>
<td>ICT 196</td>
<td>Process Technology Operations</td>
<td>4</td>
</tr>
<tr>
<td>ICT 194</td>
<td>Process Technology Systems</td>
<td>4</td>
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<tr>
<td>ICT 196</td>
<td>Process Technology Operations</td>
<td>4</td>
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<tr>
<td>ICT 200</td>
<td>Process Troubleshooting</td>
<td>4</td>
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<td>ICT 230</td>
<td>Health, Safety, &amp; Environmental Practices OR</td>
<td>3</td>
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<tr>
<td>ISX 101</td>
<td>Introduction to Industrial Safety</td>
<td>(3)</td>
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<td>ICT 280</td>
<td>Capstone in Industrial Chemical Technology</td>
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<tr>
<td>ITE 250</td>
<td>Team Dynamics and Problem Solving</td>
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<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
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<tr>
<td>PHY 171</td>
<td>Applied Physics OR</td>
<td>4</td>
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<tr>
<td>PHY 152</td>
<td>Introductory Physics II AND</td>
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<tr>
<td>PHY 162</td>
<td>Introductory Physics II Lab</td>
<td>(1)</td>
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<tr>
<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 Credits 61-67

Insurance Risk Management

The Certificate program in Insurance and Risk Management is a four-course (12 credit hour) credential. Students will learn the foundations of insurance production and multiple lines insurance production. Students will also master the fundamentals of operating an agency and managing sales. Completers of this certificate program will be eligible to sit for the national Accredited Advisor in Insurance (AAI) Certification exam.

Certificate

Insurance and Risk Management – 5217013019

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INS 100</td>
<td>Introduction to Insurance and Risk Management</td>
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<tr>
<td>INS 181</td>
<td>Foundations of Insurance Production</td>
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<tr>
<td>INS 182</td>
<td>Multiple Lines Insurance Production</td>
<td>3</td>
</tr>
<tr>
<td>INS 183</td>
<td>Agency Operations and Sales Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits 12

Integrated Engineering Technology

The Integrated Engineering Technology Program offers students the opportunity to build a career maintaining integrated manufacturing systems found in advanced manufacturing, with an emphasis on automotive manufacturing. The program leads students through a mechatronics approach to maintaining and troubleshooting highly-automated, complex manufacturing systems that include programmable logic controllers, robots, various types of drives, sensors, phototeys, 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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
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<tr>
<td>MAT 126</td>
<td>Technical Algebra and Trigonometry OR</td>
<td>3</td>
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<tr>
<td></td>
<td>Higher Level Quantitative Reasoning Course</td>
<td>(3)</td>
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<td></td>
<td>Social/Behavioral Sciences</td>
<td>3</td>
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<td>Heritage/Humanities</td>
<td>3</td>
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<td>Natural Sciences</td>
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<td>Oral Communications</td>
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Total Credits 64

Diploma

Integrated Engineering Technology – 1442014019

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<tr>
<td>Area 2</td>
<td>Technical Algebra and Trigonometry OR</td>
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<td>Higher Level Quantitative Reasoning Course</td>
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Total Credits 64

Technical Courses:

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<td>IET 104</td>
<td>Preventive Maintenance</td>
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<td>IET 107</td>
<td>Basic Electricity/Electronics</td>
<td>3</td>
</tr>
<tr>
<td>IET 108</td>
<td>Mechanical Drive Systems</td>
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<td>IET 109</td>
<td>Safety</td>
<td>3</td>
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<td>IET 110</td>
<td>Welding and Fabrication</td>
<td>4</td>
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<td>IET 120</td>
<td>Machine Tool Operations</td>
<td>4</td>
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<tr>
<td>IET 201</td>
<td>Electrohydraulics/Pneumatics</td>
<td>6</td>
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<tr>
<td>IET 203</td>
<td>Programmable Logic Controllers</td>
<td>5</td>
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<tr>
<td>IET 205</td>
<td>Robot Maintenance</td>
<td>4</td>
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<tr>
<td>IET 206</td>
<td>Controls and Instrumentation</td>
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Total Credits 47

Subtotal 64

(Offered at BLC)
Certificate

Electrical Engineering Technology – 1442013029
(Offered 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

Mechanical Engineering Technology – 1442013019
(Offered at BLC)

IET 102 Preventive Maintenance ............................................. 2
IET 108 Mechanical Drive Systems ......................................... 5
IET 201 Electrohydraulics/Pneumatics .................................. 6
IET 110 Welding and Fabrication ........................................... 4
IET 120 Machine Tool Operations ......................................... 4
Total Credits ................................................................. 21

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, SEC)

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
Natural Sciences ........................................................... 3-4
Quantitative Reasoning .................................................. 3
Subtotal ............................................................................ 21-22

Technical Core Courses

Digital Literacy course OR demonstrated competency ............... 0-3
IEC 101 Orientation to Early Childhood Education ................... 3
IEC 102 Foundations of Early Childhood Education .................. 3
IEC 130 Early Childhood Development .................................. 3
IEC 170 Observation & Assessment ..................................... 3
IEC 180 Approaches to Early Childhood Education Curriculum .... 3
IEC 200 Child Guidance ................................................... 3
IEC 216 Literacy and Language in IECE ................................. 3
IEC 221 Creative Expressions in IECE .................................... 3
IEC 231 Literacy and Language in IECE .................................. 3
IEC 235 Introduction to Inclusive Education ......................... 3
IEC 246 Sciences and Mathematics for IECE ......................... 3
IEC 291 IECE Practicum/Cooperative Education .................... 3
IEC 292 IECE Practicum/Cooperative Education .................... 3
IEC 293 IECE Practicum/Cooperative Education .................... 3
IEC 294 IECE Practicum/Cooperative Education .................... 3
IEC 295 IECE Practicum/Cooperative Education .................... 3
IEC 296 IECE Practicum/Cooperative Education .................... 3

Choose 6 hours from the following approved technical support elective courses:
IEC 210 Families & Communities in Early Childhood Education ... 3
IEC 230 Business Administration of ECE Programs OR ............ 3
BAS 200 Small Business Management .................................. (3)
IEC 240 Administration of Early Childhood Education .............. 3
IEC 250 School Age Child Care ......................................... 3
IEC 260 Infant and Toddler Education and Programming ........... 3
Subtotal ............................................................................ 6

Total Credits ................................................................. 60-64

Diploma

Interdisciplinary Early Childhood Education - 1907094019
(Offered at ASC, BLC, ELC, GTW, HEC, HPC, HZC, MDC, MYC, OWC, SEC)

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

IEC 101 Orientation to Early Childhood Education .................. 3
IEC 102 Foundations of Early Childhood Education .................. 3
IEC 130 Early Childhood Development .................................. 3
IEC 170 Observation & Assessment ..................................... 3
IEC 180 Approaches to Early Childhood Education Curriculum .... 3
IEC 200 Child Guidance ................................................... 3
IEC 216 Literacy and Language in IECE .................................. 3
IEC 221 Creative Expressions in IECE .................................... 3
IEC 235 Introduction to Inclusive Education ......................... 3
IEC 246 Sciences and Mathematics for IECE ......................... 3
IEC 291 IECE Practicum/Cooperative Education .................... 3
IEC 292 IECE Practicum/Cooperative Education .................... 3
IEC 293 IECE Practicum/Cooperative Education .................... 3
IEC 294 IECE Practicum/Cooperative Education .................... 3
IEC 295 IECE Practicum/Cooperative Education .................... 3
IEC 296 IECE Practicum/Cooperative Education .................... 3

Choose two of the following approved technical support elective courses:
IEC 230 Business Administration of ECE Programs OR .......... 3
BAS 200 Small Business Management .................................. (3)
IEC 240 Administration of Early Childhood Education .............. 3
IEC 250 School Age Child Care ......................................... 3
IEC 260 Infant and Toddler Education and Programming ........... 3
Subtotal ............................................................................. 6

Total Credits ................................................................. 45-48

Certificate

Child Care Assistant - 1907093039
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, SEC)

Required:
IEC 101 Orientation to Early Childhood Education .................. 3
IEC 102 Foundations of Early Childhood Education .................. 3
Any IEC three (3) hour course with the exception of IEC 230, IEC 250, IEC 291, and BAS 200 ............... 3

Total Credits ....................................................................... 9
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.
Logistics and Operations Management

The Logistics and Operations Management program is designed to teach students about the sourcing, procurement, conversion, and logistics concepts associated with the production and delivery of goods and services.

Associate in Applied Science

Logistics and Operations Management – 5202037019

(Offered at WKC)

General Education Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics or Higher General Education</td>
<td>3</td>
</tr>
<tr>
<td>LOM 100</td>
<td>Introduction to Logistics Management</td>
<td>3</td>
</tr>
<tr>
<td>LOM 101</td>
<td>Quantitative Reasoning course</td>
<td>3</td>
</tr>
<tr>
<td>LOM 102</td>
<td>Natural Sciences</td>
<td>3</td>
</tr>
<tr>
<td>LOM 180</td>
<td>Project Management OR</td>
<td>3</td>
</tr>
<tr>
<td>TEC 200</td>
<td>Technical Communications OR</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing II</td>
<td>(3)</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
<td>(3)</td>
</tr>
<tr>
<td>TOTAL</td>
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Technical or Support Courses

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<tbody>
<tr>
<td>ACC 201</td>
<td>Financial Accounting</td>
<td>3</td>
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<tr>
<td>ACC 202</td>
<td>Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BAS 256</td>
<td>International Business</td>
<td>3</td>
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<tr>
<td>BAS 282</td>
<td>Principles of Marketing</td>
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</tr>
<tr>
<td>BAS 283</td>
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</tr>
<tr>
<td>BAS 287</td>
<td>Supervisory Management</td>
<td>(3)</td>
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<tr>
<td>BAS 289</td>
<td>Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>TEC 200</td>
<td>Technical Communications OR</td>
<td>3</td>
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<tr>
<td>ENG 102</td>
<td>Writing II</td>
<td>(3)</td>
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<tr>
<td>LOM 100</td>
<td>Introduction to Logistics Management</td>
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<tr>
<td>LOM 101</td>
<td>Transportation</td>
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<tr>
<td>LOM 102</td>
<td>Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>LOM 180</td>
<td>Project Management OR</td>
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<tr>
<td>LOM 210</td>
<td>Lean for Logistics</td>
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<tr>
<td>LOM 202</td>
<td>Applied Supply Chain Management</td>
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Total Credits 61-66

Manufacturing Engineering Technology

The Manufacturing Engineering Technology degree offers students the opportunity to build a career in advanced manufacturing. It is focused on producing graduates to work as engineering technicians and first-line supervisors in manufacturing firms. The degree provides a broad foundation across many facets of operations management and manufacturing technologies. Graduates will be able to assist in leading projects across multiple disciplines in advanced manufacturing firms. They will possess an understanding of manufacturing operations and possess the interpersonal skills to lead work groups. They will be able to work in almost any manufacturing setting from discrete manufacturing to continuous flow and assembly line operations.

Associate in Applied Science

Manufacturing Engineering Technology - 1506137029

(Offered at GTW,HZC)

General Education

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
<td>COM 181</td>
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<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
<td>(3)</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra</td>
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<tr>
<td>MAT 155</td>
<td>Trigonometry</td>
<td>3</td>
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<tr>
<td>STA 220</td>
<td>Statistical Method OR</td>
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<tr>
<td>MAT 170</td>
<td>Brief Calculus with Applications</td>
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### Technical Core

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<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
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<tr>
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<td>Lean Operations</td>
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<tr>
<td>ELT 110</td>
<td>Circuits I</td>
<td>5</td>
</tr>
<tr>
<td>ELT 201</td>
<td>Statics and Strengths of Materials</td>
<td>4</td>
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<tr>
<td>BAS 289</td>
<td>Operations Management OR</td>
<td>3</td>
</tr>
<tr>
<td>MFG 256</td>
<td>Production Management</td>
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<tr>
<td>MFG 135</td>
<td>Fundamentals of Mechatronics</td>
<td>6</td>
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<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
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Subtotal: 25-29

### Technical Electives: A minimum of fourteen (14) credit hours must be taken from the approved technical elective list.

Other courses may be taken with the approval of the program coordinator.

<table>
<thead>
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<th>Course</th>
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<td>3</td>
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<td>BAS 288</td>
<td>Personal and Organizational Leadership</td>
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<td>BRX 120</td>
<td>Basic Blueprint Reading</td>
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<td>BRX 120</td>
<td>Basic Blueprint Reading</td>
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<td>CAD 102</td>
<td>Drafting Fundamentals OR</td>
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<td>CAD 112</td>
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<td>DFT 152</td>
<td>Intermediate Computer Aided Drafting</td>
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<td>Electrical Construction I</td>
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<td>EET 155</td>
<td>Electrical Construction I Lab</td>
<td>2</td>
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<td>EET 264</td>
<td>Rotating Machinery</td>
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<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>Electrical Motor Controls II</td>
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<tr>
<td>EET 276</td>
<td>Programmable Logic Controllers</td>
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<td>Programmable Logic Controllers Lab</td>
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<td>ELT 110</td>
<td>Circuits I</td>
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<td>ELT 114</td>
<td>Circuits II</td>
<td>5</td>
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<td>ETT 260</td>
<td>Robotics and Industrial Automation</td>
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<td>FPX 100</td>
<td>Fluid Power</td>
<td>3</td>
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<td>FPX 101</td>
<td>Fluid Power Lab</td>
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<tr>
<td>IMT 150</td>
<td>Maintaining Industrial Equipment</td>
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<td>IMT 151</td>
<td>Maintaining Industrial Equipment Lab</td>
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<tr>
<td>MFG 145</td>
<td>Manufacturing Processes OR</td>
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<tr>
<td>CMM 110</td>
<td>Fundamentals of Machine Tool – A</td>
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<td>CMM 112</td>
<td>Fundamentals of Machine Tool – B</td>
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<td>CMM 118</td>
<td>Metrology and Control Charts</td>
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<td>CMM 130</td>
<td>Manual Programming</td>
<td>3</td>
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<tr>
<td>CMM 132</td>
<td>CAD/CAM/CNC</td>
<td>3</td>
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<td>MFG 256</td>
<td>Production Management</td>
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<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
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<tr>
<td>QMS 220</td>
<td>Quality Audits</td>
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<tr>
<td>QMS 240</td>
<td>Statistics for Quality I (if ST 291 is not taken in the core)</td>
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Subtotal: 14

Total Credits: 63-67

### Certificates

#### Enhanced Operator I – 1506133129

(Offered at BLC, GTW, HZC)

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<thead>
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<td>Soft Skills</td>
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<tr>
<td>ISX 1001</td>
<td>Safety &amp; Universal Precaution</td>
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<tr>
<td>MFG 175</td>
<td>Lean Operations</td>
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<tr>
<td>IET 200</td>
<td>General Tools</td>
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<tr>
<td>IET 1304</td>
<td>Problem Solving</td>
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Total: 6

#### Enhanced Operator II – 1506133139

(Offered at BLC, GTW, HZC)

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<thead>
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<td>Basic Blueprint Reading</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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Total: 8

#### Fundamentals of Mechatronics - 1506003219

(Offered at BSC, GTW, HZC)

<table>
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<tr>
<th>Course</th>
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<td>MFG 125</td>
<td>Special Topics in Engineering Technology: Fundamentals of Mechatronics – A AND</td>
<td>(3)</td>
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<td>MFG 130</td>
<td>Special Topics in Engineering Technology: Fundamentals of Mechatronics – B</td>
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Total: 6

#### Integrated Manufacturing Technologies - 1506133069

(Offered at BSC, GTW, HZC)

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<tbody>
<tr>
<td>FPX 100</td>
<td>Fluid Power</td>
<td>3</td>
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<tr>
<td>FPX 101</td>
<td>Fluid Power Lab</td>
<td>2</td>
</tr>
<tr>
<td>ELT 110</td>
<td>Circuits I</td>
<td>5</td>
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<tr>
<td>IMT 150</td>
<td>Maintaining Industrial Equipment</td>
<td>3</td>
</tr>
<tr>
<td>IMT 151</td>
<td>Maintaining Industrial Equipment Lab</td>
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<td>EET 270</td>
<td>Electrical Motor Controls I</td>
<td>2</td>
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<td>EET 271</td>
<td>Electrical Motor Controls I Lab</td>
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Total Credits: 19

#### Operations Management - 5202013369

(Offered at BSC, GTW, HZC)

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<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>3</td>
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Subtotal: 3

#### General Education

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<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
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<tr>
<td>BAS 287</td>
<td>Supervisory Management OR</td>
<td>3</td>
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<tr>
<td>BAS 288</td>
<td>Personal and Organizational Leadership OR</td>
<td>3</td>
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<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>(3)</td>
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<tr>
<td>BAS 289</td>
<td>Operations Management OR</td>
<td>3</td>
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<td>MFG 256</td>
<td>Production Management</td>
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Total: 12

#### Quality Control - 1506133049

(Offered at GTW, HZC)

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<td>Basic Public Speaking OR</td>
<td>3</td>
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<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
<td>(3)</td>
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<tr>
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Subtotal: 6

#### Core

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<td>Blueprint Reading for Machinists OR</td>
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<td>BRX 120</td>
<td>Basic Blueprint Reading OR</td>
<td>(3)</td>
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<tr>
<td>CAD 102</td>
<td>Drafting Fundamentals OR</td>
<td>4</td>
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<td>CAD 112</td>
<td>Engineering Graphics</td>
<td>(4)</td>
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<td>CMM 118</td>
<td>Metrology and Control Charts</td>
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<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
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<tr>
<td>QMS 220</td>
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<td>Statistics OR</td>
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Subtotal: 15-16

Total: 21-22
### MIT: Electrical Technology

The Electrical Technology Program focuses on preparing students for various entry-level electrical positions in industry and the building trades. The study of electrical theory in the classroom and the practical application of that theory in labs provide the foundation of this program. This program is versatile in offering different tracks within the Associate of Applied Science degree. A variety of certificates and diplomas serve as pathways to the AAS degree tracks or as meeting specific training needs.

Students enrolled in the Electrical Technology program are required to achieve a minimum grade of "C" in the technical core and in those courses selected as technical electives.

### Associate in Applied Science

**Electrical Technology - 4603027039**

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

**General Education:**
- ENG 101 Writing I ......................................................... 3
- MAT 116 Technical Mathematics OR .................................. 3
- MAT 126 Technical Algebra & Trigonometry OR ................. (3)
- Higher Level Quantitative Reasoning Course ....................... 3
- Natural Sciences ......................................................... 3
- Social/Behavioral Sciences ........................................... 3
- Heritage/Humanities ................................................... 3

Subtotal 15

**Technical Core:**

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<td>EET 110</td>
<td>Circuits I OR ........................................... (5)</td>
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<td>EET 250</td>
<td>National Electric Code .................................... 4</td>
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<tr>
<td>EET 270</td>
<td>Electrical Motor Controls I AND ..................... 2</td>
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<tr>
<td>EET 271</td>
<td>Electrical Motor Controls I Lab AND ................. 2</td>
</tr>
<tr>
<td>EET 264</td>
<td>Rotating Machinery AND .................................. 2</td>
</tr>
<tr>
<td>EET 265</td>
<td>Rotating Machinery Lab AND ............................ 2</td>
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<tr>
<td>EET 272</td>
<td>Motor Controls II AND ................................... 2</td>
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<tr>
<td>EET 273</td>
<td>Motor Controls II Lab OR ................................ 2</td>
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<tr>
<td>EET 268</td>
<td>Rotating Machinery and Electrical Motor Controls I AND .................................... (3)</td>
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<td>Rotating Machinery and Electrical Motor Controls I Lab AND (4)</td>
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<td>EET 273</td>
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<td>Electrical Motor Controls I Lab AND ................. (2)</td>
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<td>EET 266</td>
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<td>EET 267</td>
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<td>EET 273</td>
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<td>EET 275</td>
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<td>EET 264</td>
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<td>EET 265</td>
<td>Rotating Machinery Lab .................................... (2)</td>
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<tr>
<td>EET 127</td>
<td>Electrical Capstone ......................................... 1</td>
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<tr>
<td>Digital Literacy OR ................................................. 3</td>
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</table>

If any student successfully tests out of Digital Literacy, he/she must take an additional Technical Course approved by the Electrical Program Coordinator .......... (3)

Subtotal 24-27

### Total Credits

62-66

### Technical Electives for the Automated Industrial Controls Technician Track

<table>
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<tr>
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<tbody>
<tr>
<td>EET 276</td>
<td>Programmable Logic Controllers .................... 2</td>
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<td>EET 277</td>
<td>Programmable Logic Controllers Lab ................ 2</td>
</tr>
<tr>
<td>FPX 100</td>
<td>Fluid Power AND ......................................... 3</td>
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<tr>
<td>FPX 101</td>
<td>Fluid Power Lab OR ..................................... 2</td>
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<td>ELT 265</td>
<td>Applied Fluid Power ..................................... (3)</td>
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<td>Technical Electives ............................................. 16</td>
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Subtotal 23-25

### Total Credits

62-66

### Construction Electrician Track - 460302702

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

<table>
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<td>EET 154</td>
<td>Electrical Construction I AND ..................... 2</td>
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<tr>
<td>EET 155</td>
<td>Electrical Construction I Lab AND ................ 2</td>
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<tr>
<td>EET 252</td>
<td>Electrical Construction II AND ..................... 2</td>
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<td>EET 253</td>
<td>Electrical Construction II Lab OR .................. 2</td>
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<td>EET 254</td>
<td>Electrical Construction AND .......................... (3)</td>
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<td>EET 255</td>
<td>Electrical Construction Lab ............................ (4)</td>
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Subtotal 23-24

### Total Credits

62-66

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.
### Technical Electives for Construction Electrician Track

**EET**  All EET Prefix Courses
- **ACR** 100 Refrigeration Fundamentals ........................................ 3
- **ACR** 101 Refrigeration Fundamentals Lab .................................. 2
- **ACR** 130 Electrical Components ........................................... 3
- **ACR** 131 Electrical Components Lab ....................................... 2
- **BBT** 100 Introduction to HFC/Cable-TV ................................ 3
- **BBT** 200 Introduction to Cellular Technology ......................... 2
- **BRX** 110 Basic Blueprint Reading for Machinist ...................... 2
- **BRX** 120 Basic Blueprint Reading ........................................... 3
- **BRX** 220 Basic Blueprint Reading for Construction .................. 3
- **CAD** 100 Introduction to Computer Aided Design ................. 3
- **CMM** 114 Fundamentals of Machine Tools ................................. 6
- **ELT** 103 Introduction to Engineering .................................... 3
- **ELT** 110 Circuits I .................................................................. 5
- **ELT** 114 Circuits II .............................................................. 5
- **ELT** 120 Digital I ................................................................. 3
- **ELT** 210 Devices I ................................................................. 4
- **ELT** 214 Devices II ............................................................... 4
- **ELT** 220 Digital II ................................................................. 3
- **ELT** 260 Robotics and Industrial Automation ......................... 5
- **EET** 154 Electrical Construction I AND ..................................... 2
- **EET** 155 Electrical Construction I Lab AND ............................ 2
- **EET** 252 Electrical Construction II AND ................................. 2
- **EET** 253 Electrical Construction II Lab OR ............................. 2
- **EET** 254 Electrical Construction AND .................................... (3)
- **EET** 255 Electrical Construction Lab ........................................ (4)
- **EET** 276 Programmable Logic Controllers .................................. 2
- **EET** 277 Programmable Logic Controllers Lab ....................... 2
- **Subtotal** .......................... 26
- **Total Credits** .......................... 65-68

### Technical Electives for Industrial Automation and Robotics

**Technician Track**
- **EET**  All EET Prefix Courses
- **IMT**  All IMT Prefix Courses
- **ACR** 100 Refrigeration Fundamentals ........................................ 3
- **ACR** 101 Refrigeration Fundamentals Lab .................................. 2
- **ACR** 130 Electrical Components ........................................... 3
- **ACR** 131 Electrical Components Lab ....................................... 2
- **BFX** 100 Basic Fluid Power .................................................... 3
- **BFX** 101 Basic Fluid Power Lab .............................................. 3
- **ISX** 101 Introduction to Industrial Safety ................................. 3
- **ISM** 102 Fundamentals of Instrumentation ................................. 4
- **ISM** 210 Fundamentals of Process Control ................................. 4
- **ISX** 101 Introduction to Industrial Safety ................................. 3
- **ISX** 102 Fundamentals of Instrumentation ................................. 4
- **ISM** 210 Fundamentals of Process Control ................................. 4
- **EET** 265 Applied Fluid Power ................................................... 3
- **EET** 276 Programmable Logic Controllers ................................. 2
- **EET** 277 Programmable Logic Controllers Lab ....................... 2
- **Technical Electives** ................................................................. 9
- **Subtotal** .......................... 26
- **Total Credits** .......................... 65-68

### Industrial Automation and Process Control Technician Track – 460302705

(Offered at BLC, ELC, OWC, WKC)
- **ISM** 102 Fundamentals of Instrumentation ................................. 4
- **ISM** 210 Fundamentals of Process Control ................................. 4
- **BFX** 100 Fluid Power ............................................................. 3
- **BFX** 101 Fluid Power Lab ...................................................... 2
- **EET** 276 Programmable Logic Controllers ................................. 2
- **EET** 277 Programmable Logic Controllers Lab ....................... 2
- **Technical Electives** ................................................................. 9
- **Subtotal** .......................... 26
- **Total Credits** .......................... 65-68

### Industrial Automation and Robotics Technician Track – 460302706

(Offered at BLC, ELC, WKC)
- **EET** 290 Troubleshooting Industrial Controls and Motors ........... 4
- **EET** 200 Robotic Systems I AND .............................................. 2
- **EET** 201 Robotic Systems I OR ................................................. 2
- **IMT** 200 Industrial Robotics and Robotic Maintenance ............. 4
- **EET** 202 Robotic Maintenance .................................................. 2
- **EET** 203 Robotic Vision Systems ................................................ 2
- **EET** 276 Programmable Logic Controllers .................................. 2
- **EET** 277 Programmable Logic Controllers Lab ....................... 2
- **Technical Electives** ................................................................. 10
- **Subtotal** .......................... 26
- **Total Credits** .......................... 65-68

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

### Technical Electives for Industrial Electrician Track

**Technician Track**
- **EET**  All EET Prefix Courses
- **IMT**  All IMT Prefix Courses
- **ACR** 100 Refrigeration Fundamentals ........................................ 3
- **ACR** 101 Refrigeration Fundamentals Lab .................................. 2
- **ACR** 130 Electrical Components ........................................... 3
- **ACR** 131 Electrical Components Lab ....................................... 2
- **BFX** 100 Basic Fluid Power .................................................... 3
- **BFX** 101 Basic Fluid Power Lab .............................................. 3
- **ISX** 101 Introduction to Industrial Safety ................................. 3
- **ISM** 102 Fundamentals of Instrumentation ................................. 4
- **ISM** 210 Fundamentals of Process Control ................................. 4
- **EET** 254 Electrical Construction AND .................................... (3)
- **EET** 255 Electrical Construction Lab ........................................ (4)
- **EET** 276 Programmable Logic Controllers .................................. 2
- **EET** 277 Programmable Logic Controllers Lab ....................... 2
- **Technical Electives** ................................................................. 14
- **Subtotal** .......................... 25-26
- **Total Credits** .......................... 64-68

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.
Diploma

Technical Electives for Automated Industrial Controls

Technician Track

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NOTE: Digital Literacy must be demonstrated either by competency exam or by completing a digital literacy course.

Automated Industrial Controls Technician Track- 460302404

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

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Total Credits 50-58

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

Technical Electives for Construction Electrician Track

<table>
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<td>EET 120</td>
<td>Circuits I OR</td>
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<tr>
<td>EET 121</td>
<td>Circuits II OR</td>
</tr>
<tr>
<td>EET 122</td>
<td>Digital I OR</td>
</tr>
<tr>
<td>EET 123</td>
<td>Digital II OR</td>
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<tr>
<td>EET 124</td>
<td>Devices I OR</td>
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<td>EET 125</td>
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<td>EET 126</td>
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Total Credits 50-58

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

Technical Electives for Construction Electrician Track

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<td>Refrigeration Fundamentals Lab</td>
</tr>
<tr>
<td>ACR 130</td>
<td>Electrical Components</td>
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<tr>
<td>ACR 131</td>
<td>Electrical Components Lab</td>
</tr>
<tr>
<td>BBT 100</td>
<td>Introduction to HFC/Cable-TV</td>
</tr>
<tr>
<td>BBT 200</td>
<td>Introduction to Cellular Technology</td>
</tr>
<tr>
<td>BRX 110</td>
<td>Basic Blueprint Reading for Machinist</td>
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<td>BRX 120</td>
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<td>BRX 220</td>
<td>Basic Blueprint Reading for Construction</td>
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<tr>
<td>CAD 100</td>
<td>Introduction to Computer Aided Design</td>
</tr>
<tr>
<td>CMM 114</td>
<td>Fundamentals of Machine Tools</td>
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<td>ELT 103</td>
<td>Introduction to Engineering</td>
</tr>
<tr>
<td>ELT 110</td>
<td>Circuits I</td>
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<tr>
<td>ELT 114</td>
<td>Circuits II</td>
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<td>ELT 120</td>
<td>Digital I</td>
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<td>ELT 210</td>
<td>Devices I</td>
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<td>ELT 214</td>
<td>Devices II</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. 

Technical Electives for Automated Industrial Controls Technician Track

<table>
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<th>Course</th>
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<td>EET 270</td>
<td>Electrical Motor Controls I AND</td>
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NOTE: Digital Literacy must be demonstrated either by competency exam or by completing a digital literacy course.

Automated Industrial Controls Technician Track- 460302404

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

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<td>Technical Electives</td>
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Total Credits 50-58

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.
Industrial Automation and Process Control Track – 460302405

(Offered at BLC, ELC, OWC, WKC)

ISM 102 Fundamentals of Instrumentation .......................................................... 4
ISM 210 Fundamentals of Process Control .......................................................... 4
FPX 100 Fluid Power ......................................................................................... 3
FPX 101 Fluid Power Lab ................................................................................. 2
EET 276 Programmable Logic Controllers ...................................................... 2
EET 277 Programmable Logic Controllers Lab ................................................. 2
Technical Electives ............................................................................................ 6

Subtotal ............................................................................................................. 23

Total Credits .................................................................................................... 54-60

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

Technical Electives for Industrial Automation and Process Control Technician Track

EET All EET Prefix Courses
IMT All IMT Prefix Courses
ELT 103 Introduction to Engineering ................................................................ 3
ELT 110 Circuits I .............................................................................................. 5
ELT 114 Circuits II ............................................................................................ 5
ELT 120 Digital I .............................................................................................. 3
ELT 210 Devices I ............................................................................................ 4
ELT 214 Devices II ........................................................................................... 4
ELT 220 Digital II ............................................................................................ 3
ELT 260 Robotics and Industrial Automation .................................................... 5

Industrial Automation and Robotics Technician Track - 460302406

(Offered at BLC, ELC, WKC)

EET 290 Troubleshooting Industrial Controls and Motors ................................ 4
EET 200 Robotic Systems I AND ................................................................. 2
EET 201 Robotic Systems II OR ..................................................................... 2
IMT 200 Industrial Robotics and Robotic Maintenance ..................................... (4)
EET 202 Robotic Maintenance .......................................................................... 2
EET 203 Robotic Vision Systems ...................................................................... 2
EET 276 Programmable Logic Controllers ..................................................... 2
EET 277 Programmable Logic Controllers Lab ............................................... 2
Technical Electives ............................................................................................ 7

Subtotal ............................................................................................................. 23

Total Credits .................................................................................................... 54-60

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

Technical Electives for Industrial Automation and Robotics Technician Track

EET All EET Prefix Courses
IMT All IMT Prefix Courses
FPX 100 Fluid Power .......................................................................................... 3
FPX 101 Fluid Power Lab .................................................................................. 2

Industrial Electrician Track- 460302401

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

EET 154 Electrical Construction I AND .......................................................... 2
EET 155 Electrical Construction I Lab AND .................................................... 2
EET 252 Electrical Construction II AND .......................................................... 2
EET 253 Electrical Construction II Lab OR ..................................................... 2
EET 254 Electrical Construction AND ............................................................ (3)
EET 255 Electrical Construction Lab ............................................................... (4)
EET 276 Programmable Logic Controllers ..................................................... 2
EET 277 Programmable Logic Controllers Lab ................................................. 2
Technical Electives* ......................................................................................... 11

Subtotal ............................................................................................................. 22-23

Total Credits .................................................................................................... 53-60

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

Technical Electives for Industrial Electrician Track

EET All EET Prefix Courses
MT All IMT Prefix Courses
ACR 100 Refrigeration Fundamentals .............................................................. 3
ACR 101 Refrigeration Fundamentals Lab ....................................................... 2
ACR 130 Electrical Components ..................................................................... 3
ACR 131 Electrical Components Lab .............................................................. 2
BTT 100 Introduction to HFC/Cable-TV ......................................................... 3
BTT 200 Introduction to Cellular Technology ................................................ 3
BRX 110 Basic Blueprint Reading for Machinist ............................................. 2
BRX 120 Basic Blueprint Reading ................................................................. (3)
BRX 220 Basic Blueprint Reading for Construction ....................................... 3
CAD 100 Introduction to Computer Aided Design ........................................... 3
CMM 114 Fundamentals of Machine Tools ..................................................... 6
ELT 103 Introduction to Engineering ................................................................. 3
ELT 110 Circuits I .............................................................................................. 5
ELT 114 Circuits II ........................................................................................... 5
ELT 120 Digital I .............................................................................................. 3
ELT 210 Devices I ............................................................................................ 4
ELT 214 Devices II ........................................................................................... 4
ELT 220 Digital II ............................................................................................ 3
ELT 232 Computer Software Maintenance ...................................................... 3
ELT 234 Computer Hardware Maintenance .................................................... 3
ELT 260 Robotics and Industrial Automation .................................................... 5
ELT 265 Applied Fluid Power ......................................................................... 3
ESP 101 Introduction to Energy Systems ......................................................... 3
FPX 100 Fluid Power ........................................................................................ 3
FPX 101 Fluid Power Lab ................................................................................ 2
ISX 101 Introduction to Industrial Safety ......................................................... 3
ISX 102 Fundamentals of Instrumentation ...................................................... 4
ISM 210 Fundamentals of Process Control ...................................................... 4
WLD 140 Gas Metal Arc Welding ................................................................. (2)
WLD 141 Gas Metal Arc Welding Lab ............................................................. (3)
WLD 151 Basic Welding A ............................................................................. (2)
WLD 152 Basic Welding B ............................................................................. (5)
### Certificates

**Electrical Construction - 4603023029**

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

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**Total Credits** 31-36

### Technical Electives for Electrical Construction Certificate

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<td>Electrical Components</td>
<td>3</td>
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<td>ACR 131</td>
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<tr>
<td>BBT 100</td>
<td>Introduction to HFC/Cable TV</td>
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<td>BRX 110</td>
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<td>Circuits II</td>
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<td>ELT 210</td>
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<td>ELT 214</td>
<td>Devices I</td>
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<td>Digital II</td>
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<td>ELT 232</td>
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<tr>
<td>ELT 234</td>
<td>Computer Hardware Maintenance</td>
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<td>ELT 260</td>
<td>Robotics and Industrial Automation</td>
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<tr>
<td>ELT 265</td>
<td>Applied Fluid Power</td>
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<tr>
<td>ESP 101</td>
<td>Introduction to Energy Systems</td>
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<td>FPX 100</td>
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<td>FPX 101</td>
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<td>ISX 100</td>
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<td>ISX 101</td>
<td>Introduction to Industrial Safety</td>
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### Electrical Motor Control Level I - 4603023079

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

<table>
<thead>
<tr>
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<tr>
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<tr>
<td>EET 119</td>
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<td>(5)</td>
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<td>4</td>
</tr>
<tr>
<td>EET 270</td>
<td>Electrical Motor Controls I AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 271</td>
<td>Electrical Motor Controls I Lab AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 264</td>
<td>Rotating Machinery AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 265</td>
<td>Rotating Machinery Lab OR</td>
<td>2</td>
</tr>
<tr>
<td>EET 268</td>
<td>Rotating Machinery Electrical Motor Controls I AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 269</td>
<td>Rotating Machinery Electrical Motor Controls I Lab OR</td>
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<tr>
<td>EET 270</td>
<td>Electrical Motor Controls I AND</td>
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<td>3</td>
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<tr>
<td>EET 274</td>
<td>Electrical Motor Controls AND</td>
<td>3</td>
</tr>
<tr>
<td>EET 275</td>
<td>Electrical Motor Controls Lab AND</td>
<td>4</td>
</tr>
<tr>
<td>EET 264</td>
<td>Rotating Machinery AND</td>
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<tr>
<td>EET 265</td>
<td>Rotating Machinery Lab</td>
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**Total Credits** 19-23

### Electrical Motor Control Level II - 4603023089

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

<table>
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<tr>
<td>EET 270</td>
<td>Electrical Motor Controls I AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 271</td>
<td>Electrical Motor Controls I Lab AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 264</td>
<td>Rotating Machinery AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 265</td>
<td>Rotating Machinery Lab OR</td>
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</tr>
<tr>
<td>EET 268</td>
<td>Rotating Machinery Electrical Motor Controls I AND</td>
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</tr>
<tr>
<td>EET 269</td>
<td>Rotating Machinery Electrical Motor Controls I Lab AND</td>
<td>(4)</td>
</tr>
<tr>
<td>EET 270</td>
<td>Electrical Motor Controls I AND</td>
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</tr>
<tr>
<td>EET 274</td>
<td>Rotating Machinery Electrical Motor Controls AND</td>
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</tr>
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<td>EET 275</td>
<td>Rotating Machinery and Transformers AND</td>
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<td>EET 277</td>
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<td>EET 278</td>
<td>Rotating Machinery Electrical Motor Controls I Lab AND</td>
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<tr>
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<td>Rotating Machinery Electrical Motor Controls II AND</td>
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<td>EET 283</td>
<td>Rotating Machinery Electrical Motor Controls II Lab AND</td>
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**Total Credits** 31-36

### Electrician Trainee Level I - 4603023039

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

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<td>EET 265</td>
<td>Rotating Machinery 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>EET 265</td>
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</table>

**Total Credits** 27-30

If any student successfully tests out of Digital Literacy, he/she must take an additional Technical Course approved by the Electrical Program Coordinator. ........................ (3)

### Total Credits

31-36

---

If any student successfully tests out of Digital Literacy, he/she must take an additional Technical Course approved by the Electrical Program Coordinator. ........................ (3)

### Total Credits

19-23

---

If any student successfully tests out of Digital Literacy, he/she must take an additional Technical Course approved by the Electrical Program Coordinator. ........................ (3)

### Total Credits

31-36

---

If any student successfully tests out of Digital Literacy, he/she must take an additional Technical Course approved by the Electrical Program Coordinator. ........................ (3)

### Total Credits

27-30

---

If any student successfully tests out of Digital Literacy, he/she must take an additional Technical Course approved by the Electrical Program Coordinator. ........................ (3)

### Total Credits

8
## Electrician Trainee Level I - 4603023059

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

<table>
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<tr>
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<td>EET 154</td>
<td>Electrical Construction I AND</td>
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<td>EET 155</td>
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### Technical Electives for Electrician Trainee Level I and II Certificates

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<td>EET 254</td>
<td>Electrical Construction AND</td>
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## Voice and Data Wiring Installer Level I - 4603023099

(Offered at ASC, BLC, GTW, HPC, SKY, SMC)

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<td>EET 154</td>
<td>Electrical Construction I AND</td>
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<td>EET 155</td>
<td>Electrical Construction I Lab OR</td>
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<tr>
<td>EET 254</td>
<td>Electrical Construction AND</td>
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<td>EET 255</td>
<td>Electrical Construction Lab</td>
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<td>EET 110</td>
<td>Voice and Data Installer Level I</td>
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<tr>
<td>EET 112</td>
<td>Basic Electrical Theory AND</td>
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<td>EET 119</td>
<td>Basic Electrical OR</td>
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<tr>
<td>EET 110</td>
<td>Circuits I OR</td>
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<td>IMT 110</td>
<td>Industrial Maintenance Electrical Principles AND</td>
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<tr>
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## Voice and Data Wiring Installer Level II - 4603023109

(Offered at BLC, GTW, HPC, SMC)

<table>
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<td>EET 252</td>
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<td>Electrical Construction II Lab OR</td>
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<td>EET 254</td>
<td>Electrical Construction AND</td>
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</tr>
<tr>
<td>EET 255</td>
<td>Electrical Construction Lab</td>
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<td>ETT 114</td>
<td>Voice and Data Installer Level 2</td>
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<td>ETT 116</td>
<td>Fiber Optics Systems</td>
<td>3</td>
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<td>ETT 118</td>
<td>Residential Network Wiring</td>
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<tr>
<td>Total</td>
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</tbody>
</table>
MIT: Industrial Maintenance Technology

Advanced Manufacturing Technician Track

Advanced Manufacturing requires demonstrating multiple skills and competencies. Students accepted into this program gain valuable workplace experience, working three (3) days in a manufacturing environment and two (2) days on campus in a manufacturing-based classroom. Critical conceptual components of the track include embedded Safety Culture, Workplace Organization (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 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 Tool and Die Technician Track

The Advanced Manufacturing Tool and Die Technician Track is a program designed to provide a student with a well-rounded skill set that is needed to obtain a career in the advanced manufacturing industry sector. This apprenticeship style program provides the students the opportunity to work in an advanced manufacturing environment and learn in an advanced manufacturing-based classroom setting. Graduates from this program will have been introduced to critical maintenance skills, positive safety practices, and manufacturing core exercises with an emphasis on the knowledge needed to gain employment in the presswork and die maintenance field.

Progression in the Advanced Manufacturing Tool and Die Technician Track is contingent upon achievement of a grade of “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).

Industrial Maintenance Track:

An understanding of the requirements and opportunities in maintenance, good safety practices, pride in workmanship, and an understanding of the principles and accepted practices of the maintenance trade are covered in this program. Students are trained to hold positions in factories, hospitals, hotels, etc., where multi-skilled maintenance personnel are needed. Included are courses in air conditioning, carpentry, electricity, machine tool, metal fabrication, and welding.

Progression in the Industrial Maintenance Technology program is contingent upon achievement of a grade of “C” or better in each technical course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Associate in Applied Science

Industrial Maintenance Technology - 4703037019

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

General Education Core:

ENG 101 Writing I ................................. 3
MAT 116 Technical Mathematics OR Higher .................. 3
Digital Literacy ........................................ 0-3
Oral Communications ............................ 3
Social/Behavioral Sciences ..................... 3
Total Credits .............................. 18

Advanced Manufacturing Technician Track - 470303702

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

Technical Core:

BRX 120 Basic Blueprint Reading ..................... 3
CMM 110 Fundamentals of Machine Tools – A .............. 3
EET 270 Electrical Motor Controls I AND .............. 2
EET 271 Electrical Motor Controls I Lab ................ 2
EET 272 Electrical Motor Controls II AND ............ 2
EET 273 Electrical Motor Controls Lab II ................ 2
EET 276 Programmable Logic Controllers AND ...... 2
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 200 Industrial Robotics and Robotic Maintenance .... 4
IMT 289 Industrial Maintenance Technology Capstone ........ 1
Total Credits ........................................ 48-51

*Note: Only Integrated Engineering Technology (IET) courses are approved for substitution into the Advanced Manufacturing Technician Track.
*Note: Minimum of 1,824 hours of Industry Sponsored Internship.
Automotive Manufacturing Technical Education Collaborative (AMTEC)  
Track- 470303703  
(Offered at BSC, BLC, ELC, HPC, JFC, OWC, SMC, WKC)  

Technical Core:  
- Digital Literacy……………………………………0-3  
- BRX 120 Basic Blueprint Reading OR…………..3  
- BRX 110 Basic Blueprint Reading for Machinist OR…………..(2)  
- EET 102 Blueprint Reading……………………2  
- FPX 100 Fluid Power AND……………………………3  
- FPX 101 Fluid Power Lab………………………………2  
- EET 265 Applied Fluid Power…………………………3  
- IMT 110 Industrial Maintenance Electrical Principles AND…………3  
- IMT 111 Industrial Maintenance Electrical Principles Lab OR…………2  
- ELT 110 Circuits I OR…………………………………(5)  
- EET 119 Basic Electricity…………………………………………………5  
- IMT 150 Maintaining Industrial Equipment I AND…………3  
- IMT 151 Maintaining Industrial Equipment I Lab…………………2  
- IMT 220 Industrial Maintenance Electrical Motor Controls I AND…………3  
- IMT 221 Industrial Maintenance Electrical Motor Controls I Lab OR…………2  
- EET 270 Electric Motor Controls I AND…………………..(2)  
- EET 271 Electric Motor Controls I Lab OR…………………..(2)  
- ELT 244 Electrical Machinery and Controls OR……………(4)  
- IMT 120 Industrial Maintenance Rotating Machinery AND…………3  
- IMT 121 Industrial Maintenance Rotating Machinery Lab OR…………2  
- EET 264 Rotating Machinery AND……………………2  
- EET 265 Rotating Machinery Lab……………………………2  
- IMT 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…………………………………..(3)  
- IMT 289 Industrial Maintenance/Technology Capstone……………1  
- IET 109 Safety………………………………………………3  
- IET 120 Machine Tool Operations……………………………4  
- IET 203 Programmable Logic Controllers……………………5  
- IET 205 Robot Maintenance……………………………………4  
- IET 1301 Safety Culture OR……………………………………1  
- IET 1302 SS OR……………………………………………………1  
- IET 1303 Total Production System Maintenance OR……………….1  
- IET 1304 Problem Solving OR…………………………………1  
- IET 1305 Maintenance Reliability……………………………(1)  

Subtotal 42-49  

Total Credits 60-67  

Advanced Manufacturing Tool and Die Technician Track - 470303704  
(Offered at BLC, JFC, WKC)  

Technical Core:  
- Digital Literacy………………………………………0-3  
- BRX 110 Basic Blueprint Reading for Machinist OR…………..2  
- BRX 120 Basic Blueprint Reading OR……………………………3  
- EET 102 Blueprint Reading……………………………………(3)  
- ELT 265 Applied Fluid Power……………………………………3  
- FPX 100 Fluid Power AND……………………………………2  
- FPX 101 Fluid Power Lab………………………………………2  
- IMT 150 Maintaining Industrial Equipment AND…………….3  
- IMT 151 Maintaining Industrial Equipment Lab…………………2  
- IMT 289 Industrial Maintenance/Technology Capstone……………1  
- IMT 100 Welding for Maintenance AND………………………3  
- IMT 101 Welding for Maintenance Lab…………………………2  
- CMM 110 Fundamentals of Machine Tool A………………………3  
- IMT 260 Presswork and Die Maintenance………………………7  
- IET 1301 Safety Culture………………………………………1  
- IET 1302 SS………………………………………………………1  
- IET 1303 Total Production System Maintenance…………………1  
- IET 1304 Problem Solving………………………………………1  
- IET 1305 Maintenance Reliability……………………………1  

Subtotal 29-37  

Total Credits 60-68  

Industrial Maintenance Track- 470303701  
(Offered at ASC, BSC, BLC, ELC, GTW, HEC, HPC, JFC, OWC, SKY, SMC, WKC)  

Technical Core:  
- Digital Literacy………………………………………0-3  
- BRX 110 Basic Blueprint Reading for Machinist OR…………..2  
- BRX 120 Basic Blueprint Reading OR……………………………3  
- EET 102 Blueprint Reading OR……………………………………(2)  
- CAD 100 Introduction to Computer Aided Design…………………(3)  
- FPX 100 Fluid Power AND……………………………………2  
- FPX 101 Fluid Power Lab………………………………………2  
- EET 265 Applied Fluid Power……………………………………3  
- IMT 110 Industrial Maintenance Electrical Principles AND…………3  
- IMT 111 Industrial Maintenance Electrical Principles Lab OR…………2  
- IMT 110 Circuits I OR……………………………………………………5  
- EET 119 Basic Electricity………………………………………………5  
- IMT 150 Maintaining Industrial Equipment I AND…………….3  
- IMT 151 Maintaining Industrial Equipment I Lab…………………2  
- IMT 220 Industrial Maintenance Electrical Motor Controls I AND…………3  
- IMT 221 Industrial Maintenance Electrical Motor Controls I Lab OR…………2  
- EET 270 Electric Motor Controls I AND…………………………2  
- EET 271 Electric Motor Controls I Lab OR…………………………2  
- ELT 244 Electrical Machinery and Controls OR…………………(4)  
- IMT 120 Industrial Maintenance Rotating Machinery AND…………3  
- IMT 121 Industrial Maintenance Rotating Machinery Lab OR…………2  
- EET 264 Rotating Machinery AND……………………………(2)  
- EET 265 Rotating Machinery Lab……………………………………(2)  
- EET 266 Rotating Machinery Lab……………………………………(2)  
- IMT 120 Industrial Maintenance Rotating Machinery AND…………3  
- IMT 121 Industrial Maintenance Rotating Machinery Lab OR…………2  
- EET 264 Rotating Machinery AND……………………………(2)  
- EET 265 Rotating Machinery Lab……………………………………(2)  
- IMT 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 OR…………………(2)  
- IMT 203 Programmable Logic Controllers OR………………………(5)  
- IMT 250 Programmable Logic Controllers…………………………(4)  
- 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………………………………………(3)  
- IMT 289 Industrial Maintenance/Technology Capstone……………1  
- IET 109 Safety………………………………………………3  
- IET 120 Machine Tool Operations……………………………4  
- IET 203 Programmable Logic Controllers……………………5  
- IET 205 Robot Maintenance……………………………………4  
- IET 1301 Safety Culture OR……………………………………1  
- IET 1302 SS OR……………………………………………………1  
- IET 1303 Total Production System Maintenance OR……………….1  
- IET 1304 Problem Solving OR…………………………………1  

Subtotal 29-37  

Total Credits 60-68  

Technical Electives:  
Thirteen (13) credit hours of electives must be taken from the approved list. The list is not all inclusive. Other technical elective courses may be taken with approval of the program instructor/advisor.  

Subtotal 13  

Total Credits 60-68  

OE 2011 Technical Education Collaborative, 2011
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IMT 100 Welding for Maintenance AND ........................................ 3
IMT 101 Welding for Maintenance Lab OR .................................... 2
WLD 120 Shielded Metal Arc-Welding AND .................................... (2)
WLD 121 Shielded Metal Arc-Welding Fillet Lab OR ........................ (3)
WLD 140 Gas Metal Arc Welding AND ......................................... (2)
WLD 141 Gas Metal Arc Welding Fillet Lab OR ................................. (3)
WLD 152 Basic-Welding B ........................................................ (5)
IMT 289 Industrial Maintenance Technology Capstone ...................... 1

Subtotal 29-37

Technical Electives:
Thirteen (13) credit hours of electives must be taken from the approved list. The list is not all inclusive. Other technical elective courses may be taken with approval of the program instructor/advisor.

Subtotal 13

Total Credits 48-56

Certificates

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
ITE 250 Team Dynamics and Problem Solving .................................... 3
ISX 100 Industrial Safety ............................................................... 3
MAT 116 Technical Mathematics ..................................................... 3
PHX 150 Introduction to Physics ..................................................... 3
QMS 101 Introduction to Quality Systems ......................................... 3
TEC 200 Technical Communications ................................................. 3
Digital Literacy ............................................................................ 0-3

Total Credits 27-30

Controls and Automation Technician – 4703033249
(Offered at BLC, ELC, HPC, OWC, SKY)
IMT 110 Industrial Maintenance Electrical Principles AND ................. 3
IMT 111 Industrial Maintenance Electrical Principles Lab OR ............. 2
ELT 110 Circuits I OR ....................................................................... (5)
EET 119 Basic Electricity .................................................................... (5)
IMT 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
ELT 244 Electrical Machinery and Controls OR ................................. (4)
IMT 120 Industrial Maintenance Rotating Machinery AND .................. (3)
IMT 121 Industrial Maintenance Rotating Machinery Lab ........................ (2)
IMT 222 Industrial Maintenance Electrical Motor Controls II AND ..... 2
IMT 223 Industrial Maintenance Electrical Motor Controls II Lab OR 2
EET 272 Electrical Motor Controls II and ........................................... (2)
EET 273 Electrical Motor Controls II Lab ............................................ (2)
IMT 230 Industrial Maintenance of PLCs AND .................................. 5
IMT 231 Industrial Maintenance of PLCs Lab OR ................................. 2
IMT 280 Advanced Programmable Logic Controllers AND ............. (3)
IMT 281 Programmable Logic Controllers Lab OR ............................ (2)
EET 276 Programmable Logic Controllers AND ............................... (2)
EET 277 Programmable Logic Controllers Lab OR ...........................(2)
IET 203 Programmable Logic Controllers OR .................................. (5)
IMT 250 Programmable Logic Controllers ......................................... (4)
IMT 282 PLC Programming Languages .............................................. 3
IMT 200 Industrial Robotics and Robotic Maintenance OR .................. 4
ELT 260 Robotics and Industrial Automation ...................................... (5)

Total Credits 24-29

Electro-fluidic Technician - 4703033169
(Offered at BLC, HPC, JFC, MYC, OWC, SMC)
IMT 110 Industrial Maintenance Electrical Principles AND ................. 3
IMT 111 Industrial Maintenance Electrical Principles Lab OR ............. 2
ELT 110 Circuits I OR ....................................................................... (5)
EET 119 Basic Electricity .................................................................... (5)
FPX 100 Fluid Power AND ................................................................ (3)
FPX 101 Fluid Power Lab OR ......................................................... 2
ELT 265 Applied Fluid Power ............................................................ (3)
MST 206 Electro-fluidic ..................................................................... 3
MST 207 Electro-fluidic Lab .............................................................. 2

Total Credits 13-15

Fluid Power Mechanic - 4703033129
(Offered at BLC, BSC, HEC, HPC, MYC, OWC, SMC)
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 220 Industrial Maintenance Electrical Principles Lab OR 2
ELT 110 Circuits I OR ....................................................................... (5)
EET 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 271 Electrical Motor Controls I Lab OR ..................................... 2
EET 272 Electrical Motor Controls I Lab ............................................ (2)
EET 277 Programmable Logic Controllers Lab OR ............................ (2)
IET 203 Programmable Logic Controllers OR .................................. (5)
EET 250 Programmable Logic Controllers ......................................... (4)

Total Credits 8-10

Industrial Maintenance Electrical Mechanic - 4703033159
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)
FPX 100 Fluid Power AND ............................................................... 3
FPX 101 Fluid Power Lab OR ......................................................... 2
ELT 265 Applied Fluid Power ............................................................ (3)
IMT 220 Industrial Maintenance Electrical Principles AND ............. 3
IMT 221 Industrial Maintenance Electrical Principles 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 OR ............................ (2)
IET 203 Programmable Logic Controllers OR .................................. (5)
EET 250 Programmable Logic Controllers ......................................... (4)

Total Credits 12-15

Industrial Maintenance Machinists Mechanic - 4703033119
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)
BRX 120 Basic Blueprint Reading OR ................................................ 3
BRX 110 Basic Blueprint Reading for Machinist OR ............................ (2)
BRX 112 Blueprint Reading for Machinist OR .................................... (4)
ELT 102 Blueprint Reading OR ........................................................ (2)
CAD 100 Introduction to Computer Aided Design ............................... (3)
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
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<tr>
<td>IMT 111</td>
<td>Industrial Maintenance Electrical Principles OR</td>
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<td>IMT 110</td>
<td>Maintenance Industrial Equipment I</td>
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**Industrial Maintenance Mechanic Level II - 4703033149**

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

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<td>BRX 112</td>
<td>Blueprint Reading for Machinist OR</td>
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<td>CAD 100</td>
<td>Introduction to Computer Aided Design</td>
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<td>FPX 101</td>
<td>Fluid Power Lab</td>
<td>2</td>
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<td>IMT 111</td>
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<td>IMT 100</td>
<td>Welding for Maintenance AND</td>
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<td>IMT 116</td>
<td>Maintenance Machining I Lab OR</td>
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<td>Fundamentals of Machine Tools OR</td>
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**Presswork and Die Maintenance Technician Level I – 4703033209**

(Offered at WKC, SMC)

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<td>IMT 100</td>
<td>Welding for Maintenance AND</td>
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<td>IMT 101</td>
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<td>IMT 260</td>
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**Presswork and Die Maintenance Technician Level II – 4703033219**

(Offered at WKC, SMC)

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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>
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<td>IMT 100</td>
<td>Welding for Maintenance AND</td>
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<td>IMT 101</td>
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<td>IMT 260</td>
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**Industrial Maintenance Robotics Technician – 4703033239**

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

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<td>EET 109</td>
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<td>IMT 220</td>
<td>Industrial Maintenance Electrical Motor Controls I AND</td>
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**Industrial Maintenance Robotics Technician – 4703033240**

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**Marine Technology**

The Marine Technology curriculum is designed to provide a strong theoretical base for employees of the inland marine industry. The program introduces students to basic inland marine principles and concepts by applying contemporary skills in a variety of employment positions based on industry needs. It provides students with a strong foundation of managerial and operational knowledge by using a problem-solving approach in state-of-the-art classroom and work experience environments. It builds leadership, management, communication skills, and professional ethics, which serve as a foundation for future development and career success. The program contains core technical courses and advanced courses in each track to address the employment needs of the domestic market.

**Associate in Applied Science**

**Marine Technology – 4903997019**

(Offered at WKC)

<table>
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<tr>
<th>Course Code</th>
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<tr>
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<td>GEN 140</td>
<td>Development of Leadership</td>
<td>3</td>
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<td>Natural Sciences</td>
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<td>Heritage/Humanities</td>
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### Technical Core (required for all tracks):

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<td>Anatomy of a Towboat</td>
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<td>MRN 102</td>
<td>Basic Marine Safety</td>
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<td>MRN 103</td>
<td>Applied Marine Weather</td>
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<tr>
<td>MRN 104</td>
<td>Marine Crew Wellness</td>
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<td>MRN 203</td>
<td>Environmental Protection Rules</td>
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<td>HSM 100</td>
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**Subtotal**: 27-30

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### Marine Culinary Management Track – 490399705

*(Offered at WKC)*

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<td>BAS 283</td>
<td>Principles of Management</td>
<td>3</td>
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<tr>
<td>CUL 100</td>
<td>Introduction to 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 230</td>
<td>Basic Nutrition</td>
<td>3</td>
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<tr>
<td>CUL 280</td>
<td>Cost and Control</td>
<td>3</td>
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<tr>
<td>MRN 208</td>
<td>Inland River Systems</td>
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**Track Subtotal**: 19

**Track Total**: 61-64

### Marine Engineering Track – 490399702

*(Offered at WKC)*

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<tr>
<td>MRN 206</td>
<td>Marine Diesel</td>
<td>5</td>
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<tr>
<td>MRN 212</td>
<td>Marine Fluid Systems</td>
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<td>MRN 214</td>
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**Track Subtotal**: 19

**Track Total**: 61-64

### Marine Logistics Operations Track – 490399703

*(Offered at WKC)*

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<td>BAS 289</td>
<td>Operations Management</td>
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**Track Subtotal**: 18

**Track Total**: 60-63

### Wheelhouse Management Track – 490399701

*(Offered at WKC)*

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<td>BAS 287</td>
<td>Supervisory Management</td>
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<td>MRN 200</td>
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<td>MRN 201</td>
<td>Rules of the Road</td>
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**Track Subtotal**: 18

**Track Total**: 60-63

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### Certificates

**Marine Culinary – 4903993039** *(Offered at ASC, WKC)*

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<td>MRN 100</td>
<td>Introduction to Marine Technology</td>
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**Total**: 16-19

**Marine Engineering – 4903993049** *(Offered at ASC, WKC)*

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<td>MRN 203</td>
<td>Environmental Protection Rules</td>
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<td>MRN 204</td>
<td>Marine Electrical Systems</td>
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<td>MRN 206</td>
<td>Marine Diesel</td>
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**Total**: 22

**Marine Industry - 4903993029** *(Offered at ASC)*

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<td>Introduction to Business</td>
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<td>BAS 283</td>
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<td>BAS 289</td>
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<td>LOM 100</td>
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**Total**: 18-21

**Marine Technology Business – 4903993019** *(Offered at WKC)*

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<td>Personal Finance</td>
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<td>BAS 160</td>
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<td>LOM 101</td>
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**Total**: 18-21

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178
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

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<td>ISX 100</td>
<td>Industrial Safety OR</td>
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<td>Intermediate Masonry</td>
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<td>MSY 198</td>
<td>Practicum</td>
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<td>MSY 255</td>
<td>Glass Blocks and Tile</td>
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**Subtotal** 42-45

**Total Credits** 48-51

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</tr>
</thead>
<tbody>
<tr>
<td>MSY 251</td>
<td>Concrete Finishing</td>
<td>3</td>
</tr>
<tr>
<td>MSY 253</td>
<td>Masonry Floors and Steps</td>
<td>3</td>
</tr>
<tr>
<td>MSY 255</td>
<td>Glass Blocks and Tile</td>
<td>3</td>
</tr>
<tr>
<td>MSY 277</td>
<td>Stone</td>
<td>3</td>
</tr>
</tbody>
</table>

**Electives (Optional):**

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSY 291</td>
<td>Special Problems III</td>
<td>(3)</td>
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**Certificates**

**Bricklayer Helper - 4601013029**  
(Offered at BLC, BSC, JFC)

<table>
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<tr>
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<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
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<td>3</td>
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<tr>
<td>ISX 101</td>
<td>Introduction to Industrial Safety</td>
<td>(3)</td>
</tr>
<tr>
<td>MSY 105</td>
<td>Introductory Masonry</td>
<td>3</td>
</tr>
<tr>
<td>MSY 115</td>
<td>Intermediate Masonry</td>
<td>3</td>
</tr>
<tr>
<td>MSY 198</td>
<td>Practicum</td>
<td>3</td>
</tr>
<tr>
<td>MSY 205</td>
<td>Advanced Masonry</td>
<td>3</td>
</tr>
<tr>
<td>MSY 215</td>
<td>Masonry Lab</td>
<td>3</td>
</tr>
<tr>
<td>MSY 225</td>
<td>Brick Construction</td>
<td>3</td>
</tr>
<tr>
<td>MSY 235</td>
<td>Special Techniques in Brick Construction</td>
<td>3</td>
</tr>
<tr>
<td>MSY 245</td>
<td>Anchors and Reinforcement</td>
<td>3</td>
</tr>
<tr>
<td>MSY 257</td>
<td>Stone</td>
<td>3</td>
</tr>
<tr>
<td>MSY 275</td>
<td>Fireplace Construction</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits** 12

**Bricklayer Trainee - 4601013019**  
(Offered at BLC, BSC, JFC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>ISX 100</td>
<td>Industrial Safety OR</td>
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</tr>
<tr>
<td>ISX 101</td>
<td>Introduction to Industrial Safety</td>
<td>(3)</td>
</tr>
<tr>
<td>MSY 105</td>
<td>Introductory Masonry</td>
<td>3</td>
</tr>
<tr>
<td>MSY 115</td>
<td>Intermediate Masonry</td>
<td>3</td>
</tr>
<tr>
<td>MSY 199</td>
<td>Cooperative Education OR</td>
<td>3</td>
</tr>
<tr>
<td>MSY 198</td>
<td>Practicum</td>
<td>(3)</td>
</tr>
<tr>
<td>MSY 205</td>
<td>Advanced Masonry</td>
<td>3</td>
</tr>
<tr>
<td>MSY 215</td>
<td>Masonry Lab</td>
<td>3</td>
</tr>
<tr>
<td>MSY 225</td>
<td>Brick Construction</td>
<td>3</td>
</tr>
<tr>
<td>MSY 235</td>
<td>Special Techniques in Brick Construction</td>
<td>3</td>
</tr>
<tr>
<td>MSY 245</td>
<td>Anchors and Reinforcement</td>
<td>3</td>
</tr>
<tr>
<td>MSY 275</td>
<td>Fireplace Construction</td>
<td>3</td>
</tr>
<tr>
<td>MSY 299</td>
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</tr>
<tr>
<td>MSY 298</td>
<td>Practicum</td>
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**Total Credits** 27

**Construction Bricklayer - 4601013039**  
(Offered at BLC, BSC, JFC)

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tbody>
<tr>
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<td>ISX 101</td>
<td>Introduction to Industrial Safety</td>
<td>(3)</td>
</tr>
<tr>
<td>MSY 105</td>
<td>Introductory Masonry</td>
<td>3</td>
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<tr>
<td>MSY 115</td>
<td>Intermediate Masonry</td>
<td>3</td>
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<tr>
<td>MSY 198</td>
<td>Practicum</td>
<td>3</td>
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<tr>
<td>MSY 205</td>
<td>Advanced Masonry</td>
<td>3</td>
</tr>
<tr>
<td>MSY 215</td>
<td>Masonry Lab</td>
<td>3</td>
</tr>
<tr>
<td>MSY 225</td>
<td>Brick Construction</td>
<td>3</td>
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<tr>
<td>MSY 235</td>
<td>Special Techniques in Brick Construction</td>
<td>3</td>
</tr>
<tr>
<td>MSY 245</td>
<td>Anchors and Reinforcement</td>
<td>3</td>
</tr>
<tr>
<td>MSY 275</td>
<td>Fireplace Construction</td>
<td>3</td>
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<tr>
<td>MSY 299</td>
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**Total Credits** 36

**Electives (Optional):**

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<tbody>
<tr>
<td>MSY 291</td>
<td>Special Problems III</td>
<td>(1-3)</td>
</tr>
</tbody>
</table>

**Stone Mason - 4601013049**  
(Offered at BLC, BSC, JFC)

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<tr>
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<th>Course Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
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<tr>
<td>MSY 105</td>
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<td>MSY 205</td>
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<td>MSY 215</td>
<td>Masonry Lab</td>
<td>3</td>
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<tr>
<td>MSY 225</td>
<td>Brick Construction</td>
<td>3</td>
</tr>
<tr>
<td>MSY 235</td>
<td>Special Techniques in Brick Construction</td>
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<tr>
<td>MSY 245</td>
<td>Anchors and Reinforcement</td>
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<td>MSY 257</td>
<td>Stone</td>
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<tr>
<td>MSY 275</td>
<td>Fireplace Construction</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits** 27
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.

The Massage Therapy Certificate Program will train Massage Therapist in techniques ranging from entry level Swedish Massage, for its therapeutic and relaxation benefits, through advanced clinical massage (sports and orthopedic massage) for the specific needs of athletes and to aid in recovery and rehabilitation from illness, injury, and surgery. Using medical models, therapists will have expanded knowledge in Anatomy and Physiology, Kinesiology and Medical Terminology. Other modalities are introduced to the Massage Therapist’s education to enhance their skills and knowledge. Business education is included in the program to assist therapists in the operation of a private practice.

CPR requirements must be successfully completed prior to enrolling in MSG 232, Advanced Clinical Massage I. The course must be Professional or Healthcare Provider. Completion of CPR 100 meets program requirements.

Associate in Applied Science

Massage Therapy Technology - 5135017019
(Offered at GTW ; HZC)

<table>
<thead>
<tr>
<th>Course</th>
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<td>ENG 102</td>
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<td>COM 252</td>
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<td>BIO 137</td>
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<td>BIO 139</td>
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<td>PHI 110</td>
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<td>AHS 115</td>
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<td>CPR 100</td>
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<td>MSG 286</td>
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<td><strong>Total Credits (AAS)</strong></td>
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Certificate

Massage Therapy - 5135013019
(Offered at GTW, HPC, HZC)

<table>
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<tr>
<th>Course</th>
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<td>MSG 117</td>
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<td>MSG 132</td>
<td>3</td>
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<td>MSG 134</td>
<td>3</td>
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<tr>
<td>MSG 232</td>
<td>3</td>
</tr>
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<td>MSG 234</td>
<td>3</td>
</tr>
<tr>
<td>MSG 286</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>29</strong></td>
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</tbody>
</table>

Mechatronic Systems

A Mechatronic Systems Operating Technician will function as a well-grounded machine operator in a complex system, with responsibility for efficient operation of the equipment with minimal down-times.

Certificate

Mechatronic Systems Operating Technician - 1504033119
(Offered at JFC, SKY, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MES 110</td>
<td>4</td>
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<tr>
<td>MES 120</td>
<td>4</td>
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<td>MES 130</td>
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<td>MES 150</td>
<td>4</td>
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<tr>
<td><strong>Total Credits</strong></td>
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</table>

Medical Administrative Services

Certificate

Medical Coding and Reimbursement Specialist - 5107133029
(Offered at JFC, SKY)

The Medical Coding and Reimbursement Specialist program insures that medical services are correctly identified on insurance claim forms. The individual codes the diagnoses and procedures performed, submits claim forms, researches and corrects insurance claim rejections. This program prepares graduates to file insurance forms for reimbursement and to code properly using the ICD, CPT and the HCPCS codes for patient diagnoses and procedures. Students are provided with an in-depth knowledge of medical terminology, anatomy, and coding procedures.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>AHS 109</td>
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<tr>
<td>BIO 130</td>
<td>(3)</td>
</tr>
<tr>
<td>BIO 135</td>
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<td>BIO 137</td>
<td>(4)</td>
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<td>BIO 139</td>
<td>(4)</td>
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<tr>
<td>AHS 115</td>
<td>(3)</td>
</tr>
<tr>
<td>CLA 131</td>
<td>(3)</td>
</tr>
<tr>
<td>MIT 103</td>
<td>(3)</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>23-38</strong></td>
</tr>
</tbody>
</table>
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).
### Diploma

**Medical Assisting - 5108014020**  
(Offered at BLC, GTW, HZC, HEC, HPC, JFC, MYC, OWC, SEC, SMC)

#### General Education:
- **BIO 135** Basic Anatomy and Physiology with Laboratory OR 4
- **BIO 137** Human Anatomy & Physiology I AND 4
- **BIO 139** Human Anatomy & Physiology II AND 4
- **ENG 101** Writing I OR 3
- **TEC 200** Technical Communications OR 3

**Subtotal** 7-11

#### Support Courses:
- **AHS 115** Medical Terminology OR 3
- **CLA 131** Medical Terminology from Greek and Latin OR 3
- **CLP 100** CPR for Health Care Professionals OR 1
- **KHP 190** First Aid and Emergency Care OR 2
- **Digital Literacy** 3

**Subtotal** 7-8

**NOTE:** Credit for CPR 100 may be granted with proof of CPR certification for Health Care Professionals.

#### Core Courses:
- **MAI 105** Introduction to Medical Assisting OR 3
- **MAI 120** Medical Assisting Laboratory Techniques I OR 3
- **MAI 140** Medical Assisting Clinical Procedures I OR 4
- **MAI 150** Medical Assisting Administrative Procedures I OR 3
- **MIT 217** Medical Office Procedures OR 3
- **MIT 170** Dosage Calculations OR 2
- **MIT 200** Pathophysiology for the Medical Assistant OR 3
- **MIT 220** Medical Assisting Laboratory Techniques II OR 3
- **MIT 230** Medical Insurance OR 3
- **MIT 240** Medical Assisting Administrative Procedures II OR 3
- **MIT 227** Medical Office Software OR 3
- **MIT 270** Pharmacology for the Medical Assistant OR 3
- **MAI 281** Medical Assisting Practicum OR 1
- **MAI 284** Medical Assisting Externship OR 2-3
- **MAI 289** Medical Assisting Assessment Preparation OR 1-2

**Subtotal** 38-40

**Total Credits** 52-59

#### Elective Courses:
- **OST 100** Keyboarding OR 1
- **MAI 260** Medical Transcription OR 3
- **MAI 299** Selected Topics: Medical Assisting: (Topic) OR 1-4

**Total Credits** 17-22

### Certificates

#### Electrocardiograph Technician - 5108013189
(Offered at BLC, HEC, HZC, JFC, MYC, OWC)

- **AHS 115** Medical Terminology OR 3
- **CLA 131** Medical Terminology from Greek and Latin OR 3
- **MIT 103** Medical Office Terminology 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 AND 4
- **CPR 100** CPR for Healthcare Professionals OR 1
- **KHP 190** First Aid and Emergency Care OR 2
- **MAI 140** Medical Assisting Clinical Procedures I OR 4
- **MAI 240** Medical Assisting Clinical Procedures II OR 4
- **MAI 281** Medical Assisting Practicum OR 1

**Total Credits** 17-22

#### Medical Office Administrative Assistant - 5108013069
(Offered at BLC, HEC, HZC, JFC, MYC, OWC, SEC)

- **AHS 115** Medical Terminology OR 3
- **CLA 131** Medical Terminology from Greek and Latin OR 3
- **MIT 103** Medical Office Terminology OR 3
- **BIO 135** Basic Anatomy and Physiology with Laboratory OR 4
- **BIO 139** Human Anatomy & Physiology I AND 4
- **BIO 137** Human Anatomy & Physiology II AND 4
- **MAI 105** Introduction to Medical Assisting OR 3
- **MAI 150** Medical Assisting Administrative Procedures I OR 3
- **MIT 217** Medical Office Procedures OR 3
- **MAI 250** Medical Assisting Administrative Procedures II OR 3
- **MIT 227** Medical Office Software OR 3
- **MAI 281** Medical Assisting Practicum OR 1
- **Digital Literacy** OR 3

**Total Credits** 20-24

#### Medical Office Insurance Billing and Coding - 5108013049
(Offered at BLC, HEC, HZC, JFC, MYC, OWC, SEC)

- **AHS 115** Medical Terminology OR 3
- **CLA 131** Medical Terminology from Greek and Latin OR 3
- **MIT 103** Medical Office Terminology OR 3
- **BIO 135** Basic Anatomy and Physiology with Laboratory OR 4
- **BIO 139** Human Anatomy & Physiology I AND 4
- **BIO 137** Human Anatomy & Physiology II AND 4
- **MIT 104** Introduction to Medical Insurance OR 3
- **MIT 250** Medical Assisting Administrative Procedures II OR 3
- **MIT 227** Medical Office Software OR 3
- **MAI 281** Medical Assisting Practicum OR 1

**Total Credits** 20-24

#### Medical Office Limited Radiography - 5108013139
(Offered at JFC, SEC)

- **MOR 100** Medical Office Limited Radiography OR 6
- **MOR 115** Medical Office Limited Radiography Lab OR 3
- **MOR 117** Advanced Medical Office Limited Radiography OR 6
- **MOR 119** Advanced Medical Office Limited Radiography Clinical OR 3

**Total Credits** 18

#### Phlebotomist* - 5108013109
(Offered at ASC, BLC, GTW, HEC, MYC)

- **PHB 100** Phlebotomy OR 6
- **PHB 155** Phlebotomy Clinical OR 2-3

**Total Credits** 8-9

**NOTE:** A competency level of successful completion of MAT 065, RDG 030 and ENC 091 must be attained for any certificate; except for the Phlebotomist certificate, a competency level of successful completion of RDG 030 must be attained.

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**NOTE:** Credit for CPR 100 may be granted with proof of CPR certification for Health Care Professionals.
Medical Information Technology graduates prepare medical records and reports, maintain paper and electronic files, order supplies, perform accounting procedures, work with medical insurance and coding, and receive patients in a variety of health care settings. Some of the degree tracks include Medical Administrative Assistant, Medical Insurance Coder, and Electronic Medical Records. Students enrolled in the degree or diploma programs are required to do an internship or capstone course.

Progression in the Medical Information Technology program contingent upon achievement of a grade of "C" or better in all required general education and technical courses and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Medical Information Technology program does not accept non-general education courses older than 5 years from returning or transfer students without the consent from the program coordinator.

Associate in Applied Science

Medical Information Technology - 5107167019
(Offered at ASC, BLC, BSC, ELC, HPC, HZC, MDC, MYC, OWC, SKY, SMC, WKC)

General Education:

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<tr>
<th>Course</th>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
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</tr>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory*</td>
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<td></td>
<td>Heritage/Humanities</td>
<td>3</td>
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<td>Social/Behavioral Sciences</td>
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<tr>
<td><strong>Subtotal</strong></td>
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*Students can fulfill the Biology requirement with both BIO 137 and BIO 139.

Technical Core:

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<tr>
<td>OST 105</td>
<td>Introduction to Information Systems OR</td>
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<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
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<td>OST 110</td>
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<td>OST 240</td>
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Medical Administrative Track - 510716705
(Offered at ASC, BLC, BSC, ELC, HPC, HZC, MDC, MYC, OWC, SKY, SMC, WKC)

Available Completely Online

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<td>ACC 201</td>
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<td>MIT 227</td>
<td>Medical Office Software</td>
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Medical Coding Track - 510716706
(Offered at ASC, BLC, BSC, ELC, HPC, HZC, MDC, MYC, OWC, SKY, SMC, WKC)

Available Completely Online

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Medical Office Management Track - 510716709
(Offered at ASC, BLC, BSC, ELC, HPC, HZC, MDC, MYC, OWC, SKY, SMC, WKC)

<table>
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<tr>
<td>ACC 201</td>
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<td>(3)</td>
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<td></td>
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<td>BAS 160</td>
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Electronic Medical Records Track - 510716707
(Offered at ASC, BLC, BSC, ELC, HPC, HZC, MDC, MYC, OWC, SMC, WKC)

Available Completely Online

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<td>ACC 201</td>
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<tr>
<td>MIT 227</td>
<td>Medical Office Software</td>
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<tr>
<td>OST 235</td>
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Diplomas

Medical Administrative Assistant - 5107164019

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

Available Completely Online

General Education/Applied Academics
BIO 135 Basic Anatomy and Physiology with Laboratory* .... 4
ENG 101 Writing I ......................................................... 3
Subtotal ................................................................. 7

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

Technical or Support Courses
ACT 101 Fundamentals of Accounting I OR .......................... 3
ACC 201 Financial Accounting I ......................................... 3
OST 110 Word Processing Applications ......................... 3
MAT 105 Business Mathematics OR ......................... (3)
OST 235 Business Communications Technology ................. 3
MIT 230 Medical Information Management ....................... 3
MIT 227 Medical Office Software ...................................... 3
OST 240 Advanced Microsoft Applications OR .................. 3
CIT 130 Productivity Software ......................................... 3
MIT 103 Medical Office Terminology OR ............................ 3
AHS 115 Medical Terminology OR .................................... 3
CLA 131 Medical Terminology from Greek & Latin ................ (3)
MIT 104 Medical Insurance .............................................. 3
MIT 217 Medical Office Procedures .................................... 3
MIT 228 Electronic Medical Records ............................... 3
OST 105 Introduction to Information Systems OR ............... 3
CIT 105 Introduction to Computers .................................... 3
Subtotal ................................................................. 42

Total ................................................................. 49

Medical Records Specialist - 510716409

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

Available Completely Online

General Education/Applied Academics
BIO 135 Basic Anatomy and Physiology with Laboratory* .... 4
ENG 101 Writing I ......................................................... 3
Subtotal ................................................................. 7

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

Technical or Support Courses
OST 105 Introduction to Information Systems OR ................ 3
CIT 105 Introduction to Computers .................................... 3
OST 110 Word Processing Applications ......................... 3
OST 235 Business Communications Technology ................. 3
OST 240 Advanced Microsoft Applications OR .................. 3
CIT 130 Productivity Software ......................................... 3
MIT 103 Medical Office Terminology OR ............................ 3
AHS 115 Medical Terminology OR .................................... 3
CLA 131 Medical Terminology from Greek & Latin ................ (3)
MIT 104 Medical Insurance .............................................. 3
MIT 204 Medical Coding .................................................. 3
MIT 205 Advanced Medical Coding .................................. 3
OST 110 Word Processing Applications OR ....................... 3
Subtotal ................................................................. 33

Total ................................................................. 40

Certificates

Electronic Health Records Specialist – 5107163069

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

Available Completely Online

OST 105 Medical Office Terminology OR ............................... 3
CLA 131 Medical Terminology from Greek and Latin OR ............ (3)
AHS 115 Medical Terminology OR .................................... (3)
MIT 104 Medical Insurance .............................................. 3
OST 110 Word Processing Applications OR ....................... 3
CIT 217 Medical Office Procedures .................................... 3
MIT 224 Medical Practice Management .............................. 3
MIT 228 Electronic Health Records ................................... 3
MIT 230 Medical Information Management ......................... 3
OST 240 Advanced Microsoft Applications OR .................. 3
CIT 130 Productivity Software ......................................... 3
OST 105 Introduction to Information Systems OR ............... 3
CIT 105 Introduction to Computers .................................... 3
Subtotal ................................................................. 28-30

Total ................................................................. 28-30

Hospital Admissions Specialist - 5107163029

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

Available Completely Online

OST 105 Introduction to Information Systems OR ............... 3
CIT 105 Introduction to Computers .................................... 3
ENG 101 Writing I ......................................................... 3
OST 110 Word Processing Applications OR ....................... 3
OST 235 Business Communications Technology ................. 3
MIT 230 Medical Information Management ......................... 3
MIT 103 Medical Office Terminology OR ............................ 3
AHS 115 Medical Terminology OR .................................... (3)
CLA 131 Medical Terminology from Greek & Latin ................ (3)
MIT 104 Medical Insurance .............................................. 3
MIT 217 Medical Office Procedures .................................... 3
MIT 224 Medical Practice Management .............................. 3
MIT 228 Electronic Medical Records .................................. 3
Subtotal ................................................................. 42

Total ................................................................. 49

Medical Interpreter - 5107163120

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

Available Completely Online

BIO 135 Basic Anatomy and Physiology with Lab* ................ 4
MIT 103 Medical Office Terminology OR ............................ 3
AHS 115 Medical Terminology OR .................................... 3
CLA 131 Medical Terminology from Greek & Latin ................ (3)
ENG 101 Writing I ......................................................... 3
MIT 240 Medical Interpreter ............................................. 3
MIT 241 Medical Interpreter Laboratory ......................... 1
Subtotal ................................................................. 32

Total ................................................................. 40

*Students can fulfill the Biology requirement with both BIO 137 and BIO 139.
### Medical Receptionist - 5107163110
*(Offered at ASC, BLC, BSC, ELC, HZC, JFC, MDC, MYC, OWY, SKY, SMC, WKC)*

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<td>MIT 103 Medical Office Terminology OR</td>
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<td>AHS 115 Medical Terminology OR</td>
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<td>MIT 217 Medical Office Procedures</td>
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**Total 28**

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

### Medical Transcription/Scribe – 5107163099
*(Offered by BLC, BSC, ELC, HZC, JFC, MDC, MYC, OWY, SKY, SMC)*

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<tr>
<td>BIO 135 Basic Anatomy and Physiology with Lab*</td>
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<td>MIT 103 Medical Office Terminology OR</td>
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<td>CLA 131 Medical Terminology from Greek &amp; Latin OR</td>
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<tr>
<td>MIT 108 Editing Skills for Office Professionals OR</td>
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<td>MIT 217 Medical Office Procedures</td>
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<td>MIT 106 Introduction to Medical Transcription</td>
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<td>OST 105 Introduction to Information Systems OR</td>
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<tr>
<td>CIT 105 Introduction to Computers</td>
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**Total 24**

### Medical Unit Coordinator - 5107163019
*(Offered at ASC, BLC, BSC, ELC, HZC, MDC, MYC, OWY, SEC, SKY, SMC, WKC)*

Available Completely Online

<table>
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<td>BIO 135 Basic Anatomy and Physiology with Laboratory*</td>
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<td>MIT 206 Medical Transcription</td>
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<td>MIT 217 Medical Office Procedures</td>
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Course Approved by Program Coordinator**

**Total 31**

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

**Courses Approved by the Program Coordinator suggestions: Any MIT course, BAS course, OST course, ACC/ACT course, CIT course, or AHS course.*

### Medical Laboratory Technician
*

The Medical Laboratory Technician (MLT) program provides students with the opportunity to acquire the necessary skills to work under the supervision of a registered clinical scientist or pathologist in a clinical laboratory, hospital, or other health agency.

The MLT student learns to collect specimens from the patient and perform laboratory tests in all areas of the clinical laboratory to include immunohematology, clinical chemistry, hematology, microbiology, serology and urinalysis.

Students enrolled in the MLT program must achieve a minimum grade of "C" in each of the medical laboratory technician courses.

Upon completion of the program, the graduate is eligible for the national certification examination as a medical laboratory technician.

The following Associate Degree Medical Laboratory Technician Programs are fully accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). Address and telephone number of NAACLS are: NAACLS, S600 North River Road, Suite 720, Rosemont, Illinois 60018. Telephone: 773.714.8880 Fax: 773.714.8886.

(W strain): http://www.naacls.org (E-mail): info@naacls.org.

Henderson Community College, Jefferson Community and Technical College, Madisonville Community College, Maysville Community and Technical College, Somerset Community College, Southeast Kentucky Community and Technical College, and West Kentucky Community and Technical College.

All program graduates take the national board exam, called the Board of Certification of the American Society of Clinical Pathology, after having met their academic and laboratory educational requirements. If successful, graduates may then use the initials “MLT (ASCP)” indicating proficiency in laboratory medicine.

### Associate in Applied Science

#### Medical Laboratory Technician - 5110047049
*(Offered at ELC, HEC, JFC, MDC, MYC, SMC, WKC)*

<table>
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<td>CHE 130 Introductory General and Biological Chemistry OR</td>
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<td>PSY 110 General Psychology</td>
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<td>COM 181 Basic Public Speaking OR</td>
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**Subtotal 18-19**

#### Core Courses:

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<tr>
<td>MLT 112 Urinalysis</td>
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<td>MLT 115 Serology</td>
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<td>MLT 215 Hematology IAND</td>
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<td>MLT 216 Hematology II OR</td>
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<td>MLT 217 Fundamentals of Hematology AND</td>
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<td>MLT 225 Immunohematology IAND</td>
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<td>MIT 278 Practicum</td>
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<td>Pathway 1</td>
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<td>Pathway 2</td>
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**Subtotal 23-27**

*BIO 137 & BIO 139 may be substituted for BIO 135*
Pathway I - 511004703
(Offered at ELC, HEC, SMC)

PHB 151  Phlebotomy AND ..................................................... 1
MLT 101  Introduction to the Clinical Laboratory AND ..................... 3
PHB 152  Phlebotomy for the Health Care Worker AND .................... 1
PHB 205  Clinical Microbiology I AND ....................................... 3
MLT 206  Clinical Microbiology II ............................................. 2
MLT 233  Clinical Chemistry I AND ........................................... 3
MLT 234  Clinical Chemistry II ................................................ 2
MLT 279  Practicum II .......................................................... 4

Subtotal  23

Total Credit Hours – Pathway I 64-68

Pathway II - 511004704
(Offered at JFC, MDC, MYC, WKC)

MLT 207  Introduction to Clinical Diagnostic Microbiology ............. 2
PHB 170  Applied Phlebotomy AND .................................................. 3
PHB 155  Phlebotomy Clinical Experience ................................... 1
MLT 208  Clinical Diagnostic Microbiology I AND .......................... 3
MLT 209  Clinical Diagnostic Microbiology II ................................ 2
MLT 247  Introduction to Clinical Chemistry AND .......................... 3
MLT 248  Advanced Clinical Chemistry ......................................... 3
MLT 279  Practicum II .......................................................... 5

Subtotal  22

Total Credit Hours – Pathway II 64-68

Certificates

Advanced Phlebotomy Technician - 5110043049
(Offered at HZC)

PHB 151  Phlebotomy AND ..................................................... 1
PHB 152  Phlebotomy: Clinical Experience AND .......................... 1
PHB 155  Phlebotomy Clinical AND ........................................... 2
MLT 101  Introduction to the Clinical Laboratory OR ........................ 3
PHB 151  Phlebotomy AND ..................................................... (1)
PHB 153  Advanced Topics in Phlebotomy AND ............................. (4)
PHB 155  Phlebotomy Clinical OR .............................................. (3)
PHB 170  Applied Phlebotomy .................................................. (3)
PHB 152  Phlebotomy: Clinical Experience AND .......................... (1)
PHB 155  Phlebotomy Clinical .................................................. (2)

Total  6-8

Phlebotomist - 5110043019
(Offered at ELC, HZC, JFC, MDC, MYC)

PHB 100  Phlebotomy OR .............................................................. 6
PHB 170  Applied Phlebotomy .................................................... 3
PHB 155  Phlebotomy Clinical ..................................................... 2-3

Total  5-9

Phlebotomy for the Health Care Worker - 5110043039
(Offered at JSC, BSC, ELC, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SMC, WKC)

PHB 151  Phlebotomy AND ..................................................... 1
PHB 152  Phlebotomy: Clinical Experience AND .......................... 1
MLT 101  Introduction to the Clinical Laboratory OR ........................ 3
PHB 170  Applied Phlebotomy .................................................. (3)
PHB 152  Phlebotomy: Clinical Experience ................................... (1)

Total  4-5

Physician's Office Laboratory - 5110043029
(Offered at ELC, HEC, HZC, JFC, MDC, WKC)

PHB 151  Phlebotomy AND ..................................................... 1
PHB 152  Phlebotomy Clinical Experience ..................................... 1
MLT 101  Introduction to the Clinical Laboratory OR ........................ 3

PHB 170  Applied Phlebotomy .................................................. (3)
PHB 152  Phlebotomy: Clinical Experience ................................... (1)
MLT 101  Introduction to the Clinical Laboratory OR ........................ 3

PHB 152  Phlebotomy Clinical Experience ................................... (1)
MLT 112  Phlebotomy Clinical Experience ................................... (1)
MLT 151  Phlebotomy Clinical Experience ................................... (1)

Total  8-9

Mining Technology

The Mining Technology program will focus on the knowledge needed to succeed in the coal mining industry. Emphasis will be given to the statutory rights and safety procedures in all of the offerings including: the self-rescuer device, transportation controls, communication controls, mining conditions, mining methods, mining cycle, escapeways, emergency procedures, roof control, ground control, ventilation, health hazards, clean-up and rock dusting, health and safety aspects of assigned task, mine gases, explosives, compressed cylinders, electrical hazards, first aid, operation of equipment, electrical knowledge and troubleshooting, repairing electrical and fluid power equipment, maintaining the equipment, fabricating, supervising, and the engineering aspects of mining.

Associate in Applied Science

Mining Technology - 1509017019
(Offered at BSC, MDC)

General Education:

ENG 101  Writing I ..................................................................... 3
Quantitative Reasoning course* ........................................... 3
Social/Behavioral Science course ....................................... 3
GLY 101  Physical Geology AND .............................................. 3
GLY 111  Laboratory for Physical Geology OR ........................... 1
Natural Sciences ................................................................. (4)
Heritage/Humanities ......................................................... 3

Subtotal  16

Technical Core:

MNG 102  Introduction to Mine Engineering and Mining Technology .... 3
MNG 160  Elements of Underground Mining ................................ 3
MNG 170  Elements of Surface Mining ........................................ 2
MNG 150  Mining Laws ............................................................. 3
BAS 160  Introduction to Business ............................................. 3
EFM 100  Personal Financial Management OR ............................ 3
BAS 120  Personal Finance ....................................................... (3)
MNG 274  Mine Safety ............................................................. 3
MNG 180  Environmental Issues in Mining ................................... 3

Subtotal  26

Electricians Track - 150901703
(Offered at BSC, MDC)

MNG 123  Mining Electricity I AND ........................................... 4
MNG 125  Mining Electricity I Lab OR ........................................... 1
IMT 110  Industrial Maintenance Electrical Principles AND .......... (3)
IMT 111  Industrial Maintenance Electrical Principles Lab .......... (2)
ELT 244  Electrical Machinery and Controls OR ....................... 4
Equivalent course
IMT 150  Maintaining Industrial Equipment I ............................... 3
IMT 151  Maintaining Industrial Equipment I Lab ....................... 2
ELT 250  Programmable Logic Controllers ................................ 4
Technical Electives* .............................................................. 2

Subtotal  20

Total Credits  62
### Engineering Operations Track - 150901701
(Offered at BSC, MDC)

<table>
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<td>MAT 155 Trigonometry</td>
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<tr>
<td>Blueprint Reading course</td>
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<td>MNG 286 Roof Control and Ventilation</td>
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### Mechanics Track - 150901705
(Offered at BSC, MDC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ELT 265 Applied Fluid Power OR</td>
<td>3</td>
</tr>
<tr>
<td>FPX 100 Fluid Power AND</td>
<td>(3)</td>
</tr>
<tr>
<td>FPX 101 Fluid Power Lab</td>
<td>(2)</td>
</tr>
<tr>
<td>ELT 122 Mechanical Power Transmission Systems</td>
<td>3</td>
</tr>
<tr>
<td>IMT 100 Welding for Maintenance</td>
<td>3</td>
</tr>
<tr>
<td>IMT 101 Welding for Maintenance Lab</td>
<td>2</td>
</tr>
<tr>
<td>IMT 150 Maintaining Industrial Equipment</td>
<td>3</td>
</tr>
<tr>
<td>IMT 151 Maintaining Industrial Equipment I Lab</td>
<td>2</td>
</tr>
<tr>
<td>Technical Electives*</td>
<td>2</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>20-23</td>
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<tr>
<td><strong>Total Credits</strong></td>
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### Operators Track – 150901702
(Offers at BSC, MDC)

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>IMT 150 Maintaining Industrial Equipment I</td>
<td>3</td>
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<tr>
<td>IMT 151 Maintaining Industrial Equipment I Lab</td>
<td>2</td>
</tr>
<tr>
<td>MNG 161 Elements of Underground Mining Lab</td>
<td>1-3</td>
</tr>
<tr>
<td>MNG 171 Elements of Surface Mining Lab</td>
<td>1-3</td>
</tr>
<tr>
<td>Technical Electives*</td>
<td>11-13</td>
</tr>
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<td><strong>Total Credits</strong></td>
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### Supervisors Track - 150901704
(Offers at BSC, MDC)

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>ACT 101 Fundamentals of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>MNG 286 Roof Control and Ventilation</td>
<td>3</td>
</tr>
<tr>
<td>BAS 283 Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 288 Personal and Organizational Leadership</td>
<td>3</td>
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*Technical Electives:
Any AIT, EET, ELT, IMT, CIT, ISM, ENV, SMT, CAD, ICT, MNG, MFG or any other course as approved by the program coordinator.

### Certificates

#### Inexperienced Surface Trainee – 1509013149
(Offered at MDC)

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>MNG 170 Elements of Surface Mining</td>
<td>2</td>
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#### Inexperienced Underground Trainee – 1509013159
(Offered at MDC)

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<tr>
<th>Course</th>
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<tr>
<td>MNG 160 Elements of Underground Mining</td>
<td>3</td>
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#### Mining Technician I - 1509013039
(Offered at MDC)

<table>
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<th>Course</th>
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<tbody>
<tr>
<td>Digital Literacy</td>
<td>0-3</td>
</tr>
<tr>
<td>MNG 160 Elements of Underground Mining</td>
<td>3</td>
</tr>
<tr>
<td>MNG 150 Mining Laws</td>
<td>3</td>
</tr>
<tr>
<td>MNG 286 Roof Control and Ventilation</td>
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<td><strong>Total Credits</strong></td>
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#### Mining Technician II - 1509013049
(Offered at MDC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MNG 123 Mining Electricity I</td>
<td>4</td>
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<tr>
<td>MNG 125 Mining Electricity Lab</td>
<td>1</td>
</tr>
<tr>
<td>MNG 150 Mining Laws</td>
<td>3</td>
</tr>
<tr>
<td>MNG 286 Roof Control and Ventilation</td>
<td>3</td>
</tr>
<tr>
<td>MNG 190 Mine Emergency Technician OR</td>
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<tr>
<td>KHP 190 First Aid &amp; Emergency Care</td>
<td>(2)</td>
</tr>
<tr>
<td>IMT 100 Welding for Maintenance</td>
<td>3</td>
</tr>
<tr>
<td>IMT 101 Welding for Maintenance Lab</td>
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<td><strong>Total Credits</strong></td>
<td>18-22</td>
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#### Mining Technician Assistant I - 1509013019
(Offered at BSC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PMX 100 Precision Measurement</td>
<td>3</td>
</tr>
<tr>
<td>DIT 103 Preventive Maintenance Lab</td>
<td>2</td>
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<tr>
<td>IMT 101 Welding for Maintenance Lab</td>
<td>2</td>
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<tr>
<td><strong>Total Credits</strong></td>
<td>10</td>
</tr>
</tbody>
</table>

*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.
Multi-Skilled Systems Technician

Introduces the systems approach to the operation of electrical components and the relationship of voltage, current, resistance, and power in industrial systems. Provides an overview of alternating and direct current fundamentals. Introduces the systems approach to the operation of mechanical components and the relationship of their application in industrial systems. Provides an overview of rotating machinery fundamentals. Introduces the systems approach to the operation of hydraulic/pneumatic components and the relationship of their application in industrial systems. Provides an overview of digital fundamentals.

Certificate

Multi-Skilled Technician - 4703033229

(Offered at JFC)

MST 150 Multi-Skilled Systems Technician .......................... 9
Total Credits 9

Nursing

The Associate Degree Nursing program prepares graduates to use their skill and knowledge to fulfill the role of the nurse and is supported by the works of the National League for Nursing (NLN) Education Competencies and Quality and Safety Education in Nursing (QSEN). The NLN Outcomes and Competencies for Graduates of Associate Degree Programs in Nursing which serve as goals of nursing education for entry into nursing practice are: human flourishing, nursing judgment, professional identity, and spirit of inquiry. QSEN competencies which were developed to prepare future nurses to have the knowledge, skills and attitudes necessary to continuously improve the quality and safety of healthcare are: patient centered care, safety, informatics, teamwork and collaboration, evidenced based practice, and quality improvement. These core components are introduced, developed and built upon 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.

Progression in the Associate Degree Nursing program is contingent upon achievement of a grade of “C” or better in each biological science, nursing and mathematics course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale). Completion of the nursing program will meet the KCTCS graduate requirement of digital literacy.

Note: The Kentucky Board of Nursing may deny a nursing graduate admission to the NCLEX-RN Exam if an individual has been convicted of a misdemeanor or felony which involves acts that bear directly on the qualifications of the graduate to practice nursing.

The following Associate Degree Nursing programs are accredited by the Accreditation Commission for Nursing in Education, 3343 Peachtree Rd. NE, Suite 850, Atlanta, GA 30326, www.acenursing.org, telephone: (404) 975-5000:


The following Associate Degree Nursing program is accredited by the National League of Nursing Commission for Nursing Education Accreditation (CNEA), 2600 Virginia Avenue, NW, The Watergate, Washington, DC 20037, www.nln.org/cnea, telephone: (202)-909-2487: Owensboro Community and Technical College.

### Associate in Applied Science

**Nursing - 5138017009**

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

#### General Education:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I</td>
<td>4</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>BIO 225</td>
<td>Medical Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>PSY 110</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>TEC 200</td>
<td>Technical Communications</td>
<td>3</td>
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</tbody>
</table>

Subtotal 24

**Nursing Modular Pathway- 513801704**

*(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, OWC, SEC, SMC, WKC)*

#### Technical Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAA 125</td>
<td>Advanced Nursing Assistant OR</td>
<td>6</td>
</tr>
<tr>
<td>NAA 100</td>
<td>Nursing Assistant Skills I AND</td>
<td>3</td>
</tr>
<tr>
<td>NAA 115</td>
<td>Nursing Assistant Skills II OR</td>
<td>3</td>
</tr>
<tr>
<td>MNA 100</td>
<td>Medicaid Nurse Aide AND</td>
<td>3</td>
</tr>
<tr>
<td>NAA 115</td>
<td>Nursing Assistant Skills II</td>
<td>3</td>
</tr>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory OR</td>
<td>4</td>
</tr>
<tr>
<td>AHS 109</td>
<td>Introduction to Body Structure and Function OR</td>
<td>4</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology IAND</td>
<td>4</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication OR</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I OR</td>
<td>3</td>
</tr>
<tr>
<td>TEC 200</td>
<td>Technical Communications</td>
<td>3</td>
</tr>
</tbody>
</table>

Subtotal 38-42

### Total Credits

62-66

**Taken by licensed practical nurses who meet specific program requirements**

**Credit may be awarded to Licensed Practical Nurses who meet specific program requirements.**

Completion of the nursing program will meet the KCTCS graduation requirement of digital literacy.

**Nursing Standard Pathway - 513801705**

*(Offered at JFC)*

#### Technical Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HST 104</td>
<td>Health Care Basic Skills I with Clinical OR</td>
<td>0-3.5</td>
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<tr>
<td>NAA 100</td>
<td>Nursing Assistant Skills I AND</td>
<td>0-3</td>
</tr>
<tr>
<td>CPR 100</td>
<td>CPR for Healthcare Professionals</td>
<td>0-1</td>
</tr>
<tr>
<td>NSG 106</td>
<td>Nursing Practice One</td>
<td>9</td>
</tr>
<tr>
<td>NSG 206</td>
<td>Nursing Two OR</td>
<td>9</td>
</tr>
<tr>
<td>NSG 196</td>
<td>Nursing LPN Bridge Course</td>
<td>5</td>
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<tr>
<td>NSG 236</td>
<td>(Family Nursing) Nursing Three</td>
<td>9</td>
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<td>NSG 246</td>
<td>Nursing Four</td>
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</tr>
<tr>
<td>HST 121</td>
<td>Pharmacology</td>
<td>2</td>
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Subtotal 38-42

**Taken by licensed practical nurses who meet specific program requirements.**

**Credit may be awarded to Licensed Practical Nurses who meet specific program requirements.**

Completion of the nursing program will meet the KCTCS graduation requirement of digital literacy.

**Nursing Assistant – Advanced**

Provides knowledge and skills for nurse aides to assume the role and responsibility required in a variety of health care settings.

**Certificate**

**Advanced Nursing Assistant - 5139023019**

*(Offered at ASC, BLC, BSC, HPC, MYC, OWC, WKC)*

**Available Completely Online**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAA 125</td>
<td>Advanced Nursing Assistant OR</td>
<td>6</td>
</tr>
<tr>
<td>NAA 100</td>
<td>Nursing Assistant Skills I AND</td>
<td>3</td>
</tr>
<tr>
<td>NAA 115</td>
<td>Nursing Assistant Skills II OR</td>
<td>3</td>
</tr>
<tr>
<td>MNA 100</td>
<td>Medicaid Nurse Aide AND</td>
<td>3</td>
</tr>
<tr>
<td>NAA 115</td>
<td>Nursing Assistant Skills II</td>
<td>3</td>
</tr>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory OR</td>
<td>4</td>
</tr>
<tr>
<td>AHS 109</td>
<td>Introduction to Body Structure and Function OR</td>
<td>4</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology IAND</td>
<td>4</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication OR</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I OR</td>
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<tr>
<td>TEC 200</td>
<td>Technical Communications</td>
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</tbody>
</table>

Subtotal 16-20

**Total Credits**
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 up through the curriculum; however, distinct parameters have been established that support the PN and RN scopes of nursing practice. The curriculum is structured around a clearly defined organizing framework and provides the foundation for a competency-based approach to nursing education through the utilization of interactive and student-focused learning strategies. Content and performance-based outcomes for the nursing courses are selected, developed, and leveled from simple to complex. Students who successfully complete the first year will receive a diploma qualifying them to apply for licensure as practical nurses. Following successful completion of the second year, students will receive the Associate in Applied Science Degree in Nursing qualifying them to apply for licensure as registered nurses.

Acceptance into the program is based on a selective admissions process. In order to be considered for admission, applicants must comply with college and program admission requirements. Licensed practical nurses who graduated within one year of admission to the program or have practiced at least one full year within the past three years and hold a current unrestricted license for practical nursing can apply to the program and will be admitted to the associate degree level based on a selective admission process.

Progression in the nursing program is contingent upon achievement of a grade of "C" or better in each biological science, nursing and mathematics course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale). Completion of the nursing program will meet the KCTCS graduation requirement of digital literacy.

Note: The Kentucky Board of Nursing may deny a nursing graduate admission to the National Council Licensure Examination for Registered Nurses (NCLEX Exam) if an individual has been convicted of a misdemeanor or felony which involves acts that bear directly on the qualifications of the graduate to practice nursing.

Associate in Applied Science

Academic/Career Mobility Program in Nursing - 5138017049  
(Offered at BSC, SKY)

<table>
<thead>
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<tbody>
<tr>
<td>BIO 137 Human Anatomy &amp; Physiology I</td>
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<td>BIO 139 Human Anatomy &amp; Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>BIO 225 Medical Microbiology</td>
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<tr>
<td>PSY 110 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101 Writing I</td>
<td>3</td>
</tr>
<tr>
<td>Quantitative Reasoning Course at AA/AS level</td>
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<tr>
<td>Heritage/Humanities Course</td>
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Technical Courses:

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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CPR 100</td>
<td>CPR for Healthcare Professionals</td>
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<tr>
<td>NRS 101</td>
<td>Nursing Care I AND</td>
<td>9</td>
</tr>
<tr>
<td>NRS 102</td>
<td>Nursing Care II OR</td>
<td>10</td>
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<tr>
<td>NRS 200</td>
<td><strong>LPN to ADN Transition</strong></td>
<td>(3)</td>
</tr>
<tr>
<td>NRS 203</td>
<td>Nursing Care III</td>
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</tr>
<tr>
<td>NRS 204</td>
<td>Nursing Care IV</td>
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Total CREDITS: 62-66

**Taken only by Licensed Practical Nurses who have been admitted to the program and have met the pre-requisites.

Diploma

Academic/Career Mobility Program in Nursing – Practical Nursing - 5139014009  
(Offered at BSC, SEC, SKY)

<table>
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<tr>
<td>BIO 137 Human Anatomy &amp; Physiology I</td>
<td>4</td>
</tr>
<tr>
<td>BIO 139 Human Anatomy &amp; Physiology II</td>
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<tr>
<td>ENG 101 Writing I</td>
<td>3</td>
</tr>
<tr>
<td>PSY 110 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Quantitative Reasoning Course at AA/AS level</td>
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Technical Courses:

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<th>Course Title</th>
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<tbody>
<tr>
<td>NAA 100</td>
<td>Nursing Assistant Skills I</td>
<td>0-3</td>
</tr>
<tr>
<td>CPR 100</td>
<td>CPR for Healthcare Professionals</td>
<td>0-1</td>
</tr>
<tr>
<td>NRS 101</td>
<td>Nursing Care I</td>
<td>9</td>
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<tr>
<td>NRS 102</td>
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<tr>
<td><strong>Total Subtotal</strong></td>
<td>19-23</td>
<td></td>
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</table>

Total CREDITS: 36-40

Nursing - Integrated Nursing

The Integrated Nursing Program provides a seamless educational pathway in nursing which allows students to choose multiple career options. The Integrated Nursing Program is designed to deliver nursing education to a cohort of students with the opportunity to complete the Practical Nursing (PN) or Associate Degree Nursing level. The curriculum is structured around a clearly defined organizing framework and provides the foundation for a competency-based approach to nursing education through the utilization of interactive and student-focused learning strategies. Content and performance-based outcomes for the nursing courses are selected, developed, and leveled from simple to complex. Classroom instruction in theory and basic nursing skills is provided in various delivery methods. Under the guidance of program faculty, students gain valuable experience in the care of patients across the lifespan in a variety of healthcare settings and/or community agencies including hospitals, long-term care facilities, clinics and child care centers.

After three semesters the student has the option to exit as a PN by enrolling in the PN exit course. This option prepares graduates to function within the legal scope of practice under the supervision of a registered nurse or physician. The practical nursing level focuses on the maintenance of health and prevention of illness, the observation and nursing care of individuals experiencing changes in their health processes, and the evaluation of health practices of patients. Students who choose practical nursing as a career can complete the components in three semesters and are eligible to apply for licensure as a practical nurse. Graduates are eligible to take the National Council Licensure Examination for Practical Nurses (NCLEX-PN).
The Associate Degree Nursing option prepares graduates to provide and manage patient care and to become members within the discipline of nursing. The associate nursing level focuses on the application of a specialized body of knowledge and skills obtained from social and biological sciences in providing evidenced-based, clinically competent care to individuals across the life span. Students choosing the Associate in Applied Science degree in Nursing can complete the components in four semesters and are eligible to apply for licensure as a registered nurse. Graduates are eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN).

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:


**Associate in Applied Science**

**Nursing - 5138017069**

*(Offered at MDC)*

**General Education:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 137 Anatomy and Physiology with Laboratory I</td>
<td>4</td>
</tr>
<tr>
<td>BIO 139 Anatomy and Physiology with Laboratory II</td>
<td>4</td>
</tr>
<tr>
<td>PSY 110 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101 Writing I</td>
<td>3</td>
</tr>
<tr>
<td>Quantitative Reasoning*</td>
<td>3</td>
</tr>
<tr>
<td>Heritage/Humanities</td>
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<td><strong>Subtotal</strong></td>
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**Technical or Support Courses:**

<table>
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<th>Credits</th>
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<tbody>
<tr>
<td>NAA 100 Nursing Assistant Skills I or Equivalent</td>
<td>0-3</td>
</tr>
<tr>
<td>AHS 100 Human Growth and Development*</td>
<td>2</td>
</tr>
<tr>
<td>NIP 116 Fundamentals of Nursing</td>
<td>10</td>
</tr>
<tr>
<td>NIP 126 Nursing Care Across the Lifespan</td>
<td>10</td>
</tr>
<tr>
<td>NIP 212 Advanced Medical Surgical Nursing</td>
<td>10</td>
</tr>
<tr>
<td>NIP 216 Leadership and Transition to Practice</td>
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<td><strong>Subtotal</strong></td>
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<td><strong>Total Credits</strong></td>
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Note: CPR requirements must be successfully completed prior to enrolling in the first nursing course and must be kept current throughout the program. The student can receive credit for NAA 100 outside of college. The student must be active on the Kentucky Medicaid Nurse Aide Registry at time of admission.

**Diploma**

**Practical Nursing - 5139014049**

*(Offered at MDC)*

**General Education:**

<table>
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<tr>
<td>BIO 137 Anatomy and Physiology with Laboratory I</td>
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<tr>
<td>BIO 139 Anatomy and Physiology with Laboratory II</td>
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**Technical or Support Courses:**

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<tbody>
<tr>
<td>NAA 100 Nursing Assistant Skills I or equivalent</td>
<td>0-3</td>
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<tr>
<td>NIP 116 Fundamentals of Nursing</td>
<td>10</td>
</tr>
<tr>
<td>AHS 100 Human Growth and Development*</td>
<td>2</td>
</tr>
<tr>
<td>NIP 126 Nursing Care Across the Lifespan</td>
<td>10</td>
</tr>
<tr>
<td>NIP 140 Practical Nursing Role Transition</td>
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<td><strong>Subtotal</strong></td>
<td><strong>28-31</strong></td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
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Note: CPR requirements must be successfully completed prior to enrolling in the first nursing course and must be kept current throughout the program. The student can receive credit for NAA 100 outside of college. The student must be active on the Kentucky Medicaid Nurse Aide Registry at time of admission.

**Certificates**

**AHA Advanced Cardiac Life Support – 5139012050**

*(Offered at MDC)*

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<td>NIP 220 Advanced Cardiac &amp; Emergent Care</td>
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**Kentucky Medication Aide - 5139012030**

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>KMA 100 Kentucky Medication Aide</td>
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<tr>
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</tr>
</tbody>
</table>

Note: After the student completes the first semester of the Integrated Nursing program, the student is eligible to sit for the KMA exam.

**Medicaid Nurse Aide – 5139012020**

<table>
<thead>
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<tr>
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<tr>
<td>NAA 100 Nursing Assistant Skills I OR</td>
<td>3</td>
</tr>
<tr>
<td>NAA 125 Advanced Nursing Assistant OR</td>
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<tr>
<td>HST 104 Health Care Basic Skills I with Clinical</td>
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<tr>
<td><strong>Total Credits</strong></td>
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</tr>
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</table>

Note: Madisonville Community College does not offer NAA 125 or MNA 100.
**Nursing - Practical Nursing**

The Practical Nursing program prepares individuals to practice within the legal scope of practical nursing under the supervision of a registered nurse or physician. The use of the nursing process at the practical nursing level toward the maintenance of health and prevention of illness, the observation and nursing care of persons experiencing changes in their health processes, and the evaluation of health practices of patients are emphasized.

Classroom instruction in theory and basic nursing skills is provided on campus. Under the guidance of program faculty, students gain valuable experience in the care of all ages in a variety of health care settings and/or community agencies - hospitals, long-term care facilities, clinics and child care centers. (Transportation to the community agencies is the responsibility of each student.)

Acceptance in the Practical Nursing program is based on a selective admission process.

Progression in the Practical Nursing program is contingent upon achievement of a grade of "C" or better in each course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale). Documentation of digital literacy as defined by KCTCS is required prior to completing the practical nursing program.

Note: The Kentucky Board of Nursing (KBN) may deny a nursing graduate admission to the NCLEX-PN Exam if an individual has been convicted of a misdemeanor or felony that involves acts that bear directly on the qualifications of the graduate to practice nursing.

---

**Diploma**

**Practical Nurse - Pathway 1 – Traditional – 513901401**

*(Offered at BLC, HZC, JFC, SMC)*

<table>
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</thead>
<tbody>
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<td>BIO 137</td>
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<td>COM 181</td>
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**Technical Core:**

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</table>

**Total Credits:** 43-55

*Taken by advanced nursing assistant and allied health graduates.*

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**Practical Nurse – Pathway 2 – Traditional Modified – 513901402**

*(Offered at ASC, BLC, HPC, JFC, MYC, SKY)*

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</thead>
<tbody>
<tr>
<td>BIO 135</td>
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<tr>
<td>BIO 137</td>
<td>4</td>
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<tr>
<td>BIO 139</td>
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<td>ENG 101</td>
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<td>COM 181</td>
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<td>COM 252</td>
<td>3</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>7-11</strong></td>
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**Technical Core:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
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<tr>
<td>CPR 100</td>
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<td>AHS 115</td>
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<td>AHS 131</td>
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<td>MIT 103</td>
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<td>NPN 111</td>
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</table>

**Total Credits** 43-56

*Taken by advanced nursing assistant and allied health graduates.*

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**Practical Nurse – Pathway 3 – Modular – 513901403**

*(Offered at ASC, BLC, HPC, JFC, MYC, SKY)*

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<tbody>
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<td>BIO 137</td>
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<tr>
<td>BIO 139</td>
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<td>PSY 110</td>
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**Technical Core:**

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<td>CPR 100</td>
<td>0-1</td>
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<tr>
<td>NPN 210</td>
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<tr>
<td><strong>Subtotal</strong></td>
<td><strong>36-40</strong></td>
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</tbody>
</table>

**Total Credits** 46-54

*Taken by advanced nursing assistant and allied health graduates.*
Occupational Therapy Assistant

The Occupational Therapy Assistant Program is designed to provide a quality educational experience that will train prospective professionals in the art and science of promoting and maintaining the holistic health and wellness of people, organizations, and populations through engagement in occupation. Graduates will be able to perform/engage as entry-level professionals under the supervision of an Occupational Therapist (OT). Graduates will develop skills necessary for employment as Certified Occupational Therapy Assistants, thereby meeting the students’ individual needs and the expressed health-care needs of the local and extended communities served by the Colleges. The program strives to fill a growing need for professionals able to contribute to all facets of occupational therapy, from community-based programs to client-centered intervention. The program promotes the value and professional importance of life-long learning.

A basic background in natural sciences, mathematics, communication, and behavioral sciences undergirds the specialized course work. Specialized course work prepares students for the certification examination they will take to become Certified Occupational Therapy Assistants (COTA). Employment may be in hospitals, rehabilitation facilities, nursing homes, clinics, and other health care facilities, as well as within pediatric, community, or educational settings.

Acceptance in to the OTA program is based on a selective admission process. In order to be considered for admission, applicants must comply with college and program admissions requirements. Students enrolled in the OTA program must achieve a minimum grade of a “C” in each OTA course and prerequisite courses.

CPR requirement must be successfully completed prior to enrolling in the first semester of OTA program. The CPR course must be Professional or Healthcare Provider.

Background check and drug screen prior to admission is required by all students, and students with a misdemeanor or felony conviction may be denied permission to access fieldwork sites.

Students will be responsible for their own transportation for fieldwork.

Documentation of computer literacy as defined by KCTCS is required prior to enrolling in the first OTA course.

Certificates

Kentucky Medication Aide - 5139012030
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

KMA  100 Kentucky Medication Aide .............................................. 5
Total Credits  5

Medicaid Nurse Aide - 5139012020
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

Available Completely Online

MNA  100 Medicaid Nurse Aide OR ..........................(3)
NAA  100 Nursing Assistant Skills I OR .................................(3)
NAA  125 Advanced Nursing Assistant OR ...........................(6)
HST  104 Health Care Basic Skills I with Clinical ...................(3.5)
Total Credits  3-6

Associate in Applied Science

Occupational Therapy Assistant - 5108037009
(Offered at JFC, MDC)

General Education Core:
ENG 101 Writing I .......................................................... 3
ENG 102 Writing II ......................................................... 3
PSY 110 General Psychology ............................................. 3
PSY 223 Developmental Psychology ................................. 3
BIO 137 Human Anatomy and Physiology I ...................... 4
BIO 139 Human Anatomy and Physiology II ..................... 4
Heritage/Humanities* .................................................. 3
MAT 110 Applied Mathematics OR Higher ......................... 3
Total  26

*MDC recommends REL 130 to fulfill the Heritage/Humanities requirement.

Technical Core:
OTA 101 Introduction to Occupational Therapy .................. 3
OTA 126 Level IA Fieldwork ........................................... 1
OTA 146 Occupational Therapy in Mental Health ................ 3
OTA 136 Physical Dysfunction ........................................... 4
OTA 226 Level IB Fieldwork ........................................... 1
OTA 246 Pediatric Issues in Occupational Therapy ............. 3
OTA 256 Elder Issues in Occupational Therapy ................... 2
OTA 206 Community Practice ......................................... 2
OTA 236 Professional Transitions and Management ............ 2
OTA 267 Level IIA Fieldwork ......................................... 2
OTA 277 Level IIB Fieldwork ......................................... 2
Subtotal  31

Additional Technical Courses (MCC only):
OTA 113 Applied Anatomy and Kinesiology ..................... 2
OTA 115 Skills and Interventions I ................................. 2
OTA 125 Assistive Technology and Documentation ............ 2
OTA 225 Skills and Interventions II ................................. 2
OTA 286 Clinical Seminar ............................................. 2
Total Additional Technical Credits  10

Alternate Pathway #1 for MCC/Total Credits  67

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), 6116 Executive Boulevard, Suite 200, North Bethesda, MD 20852-4929. ACOTE’s telephone number c/o AOTA is (301) 652-4929 and its Web address is www.acoteonline.org.

Graduates of the program will be able to sit for the national certification examination for the occupational therapy assistant administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be a Certified Occupational Therapy Assistant (COTA). Most states require licensure in order to practice; however, state licenses are usually based on the results of the NBCOT Certification Examination.

Note: An OTA graduate with a misdemeanor or felony conviction may be denied permission to access the NBCOT certification exam. The student is responsible for contacting NBCOT prior to admission.
Paralegal Technology

The Paralegal Technology curriculum is designed to prepare a person for entry-level employment as a paralegal in courts, corporations, law firms, and government agencies. Paralegal Technology is a program of study that requires courses in the technical area. In addition, the Associate in Applied Science degree also requires general education courses.

The curriculum is based on standards developed from the National Association of Legal Assistants’ Descriptions of Certified Legal Assistant (CLA) Exam Sections. Additional research data used in the development of publication was collected from a review of related literature.

Industry standards are based on the National Association of Legal Assistants’ Descriptions of Certified Legal Assistant (CLA) Exam Sections.

The successful completion of the Paralegal Technology Program should provide the student the opportunity for employment as a paralegal in private law firms, courts, trust departments of banks, corporations, and government agencies.

Progression in the Paralegal Technology program is contingent upon achievement of a grade of "C" or better in each paralegal technical course.

The Associate in Applied Science degree received upon completion of this concentration is not designed for transfer to a senior college or university. It is designed for immediate employment preparation.

Students should contact the senior college or university of their choosing to determine what, if any, courses will be accepted as transfer credits.

The Civil Litigation Certificate, Paralegal Technology Certificate, and Family Law Certificate are embedded in the Paralegal Technology AAS Degree.

Certificate

Civil Litigation – 2203023039

(Offered at MDC)

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<td>PGL 112</td>
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<tr>
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Family Law – 2203023029

(Offered at MDC)

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Paralegal Technology – 2203023019

(Offered at MDC)

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<td>CIT 130</td>
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<tr>
<td>PGL 111</td>
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<tr>
<td>PGL 112</td>
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</tr>
<tr>
<td>PGL 212</td>
<td>3</td>
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</table>
Pharmacy Technology

The pharmacy technician requires training to provide a knowledge base on which to make decisions to assist the pharmacist in their pursuit to provide exemplary patient care. The Pharmacy Technician Program prepares the student to function as a pharmacy technician under the supervision of the pharmacist. The essential elements of this program have been designed to provide competency of a skill set that pharmacy technicians can use in a wide variety of practice settings. The curriculum includes content areas in professional skills, processing and handling of medications and medication orders, patient care, quality, and safety skills, and regulatory knowledge. The program provides comprehensive educational experiences through lectures, hands on simulated labs, and experiential opportunities under the supervision of a licensed pharmacist.

Diploma

Entry Level Pharmacy Technology - 5108053039

(Offered at BLC, HPC, JFC, OWC, SMC, WKC)

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<td>COM 252</td>
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<tr>
<td>AHS 115</td>
<td>Medical Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek or Latin OR</td>
<td>3</td>
</tr>
<tr>
<td>MIT 103</td>
<td>Medical Office Terminology</td>
<td>3</td>
</tr>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory OR</td>
<td>4</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I AND</td>
<td>4</td>
</tr>
<tr>
<td>BIO 139</td>
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<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
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<td>PHA 110</td>
<td>Pharmacy Procedures and Skills</td>
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<tr>
<td>PHA 136</td>
<td>Pharmacology I</td>
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<td>PHA 146</td>
<td>Pharmaceutical Calculations</td>
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<td>PHA 150</td>
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<td>PHA 200</td>
<td>Admixtures for IV Therapy</td>
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<td>PHA 240</td>
<td>Pharmacy Technician Career Planning</td>
<td>3</td>
</tr>
<tr>
<td>PHA 251</td>
<td>Pharmacy Experience II</td>
<td>3</td>
</tr>
<tr>
<td>CPR 100</td>
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Total Credits: 38-46

Certificate

Advanced Level Pharmacy Technology - 5108054029

(Offered at BLC, HPC, JFC, OWC, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</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 or Latin OR</td>
<td>3</td>
</tr>
<tr>
<td>MIT 103</td>
<td>Medical Office Terminology</td>
<td>3</td>
</tr>
<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
<td>0-3</td>
</tr>
<tr>
<td>PHA 110</td>
<td>Pharmacy Procedures and Skills</td>
<td>6</td>
</tr>
<tr>
<td>PHA 136</td>
<td>Pharmacology I</td>
<td>3</td>
</tr>
<tr>
<td>PHA 146</td>
<td>Pharmaceutical Calculations</td>
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</tr>
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<td>Pharmacy Experience I</td>
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</tr>
</tbody>
</table>

Total Credits: 21-24

Physical Therapist Assistant

This program prepares the individual to become a physical therapist assistant (PTA) who is able to perform selected components of intervention and data collection under the direction and supervision of a physical therapist. The program is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE*).

The curriculum combines general education and physical therapy courses. Various facilities are utilized for clinical experiences. The graduate is eligible to sit for the national licensing examination for the physical therapist assistant. Enrollment in this program is limited; therefore, a selective admissions process is followed.

Students enrolled in the Physical Therapist Assistant program must achieve a minimum grade of “C” in each required general education course; a minimum grade of “C” in each required PTA didactic course; and a grade of pass in each clinical practicum course to complete the program.

CPR requirements must be attained by completing a program-approved CPR course prior to enrolling in the first physical therapist assistant course and must be kept current throughout the program.

*The Physical Therapist Assistant programs at Hazard Community and Technical College / Southeast Kentucky Community and Technical College, Jefferson Community and Technical College, Madisonville Community College, Somerset Community College, and West Kentucky Community and Technical College are accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE) 1111 North Fairfax Street, Alexandria VA, 22314; telephone: 703-706-3245; e-mail: accreditation@apta.org; website: www.capteonline.org.

Associate in Applied Science

Physical Therapist Assistant - 5108067049

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

Pathway 1 - 510806703

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

General Education:

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<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
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<tr>
<td>BIO 137</td>
<td>Human Anatomy and Physiology I</td>
<td>4</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy and Physiology II</td>
<td>4</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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<tr>
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Subtotal: 26

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<tr>
<td>PTA 101</td>
<td>Orientation to Physical Therapy Practice</td>
<td>5</td>
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<tr>
<td>PTA 125</td>
<td>Neuroanatomy for the PTA</td>
<td>1</td>
</tr>
<tr>
<td>PTA 150</td>
<td>Functional Anatomy and Kinesiology</td>
<td>6</td>
</tr>
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<td>PTA 160</td>
<td>Medical and Surgical Conditions in Physical Therapy</td>
<td>3</td>
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<tr>
<td>PTA 170</td>
<td>Clinical Practicum I</td>
<td>1</td>
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<tr>
<td>PTA 200</td>
<td>Modalities and Procedures in Physical Therapy</td>
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</tr>
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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>
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Subtotal: 40-43

Total: 66-69
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<td>3</td>
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<tr>
<td>BIO 137</td>
<td>Human Anatomy and Physiology I</td>
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<td></td>
<td>Heritage/Humanities</td>
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<tr>
<td>PSY 110</td>
<td>General Psychology</td>
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<tr>
<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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<tr>
<td>COM 181</td>
<td>Basic Public Speaking</td>
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### Technical Support Courses:

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<td>AHS 105</td>
<td>Introduction to Allied Health Occupations</td>
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<td><strong>Subtotal</strong></td>
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### Technical Courses:

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<td>PTA 1501</td>
<td>Functional Anatomy &amp; Kinesiology Lab</td>
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<td>PTA 1502</td>
<td>Functional Anatomy &amp; Kinesiology Lecture</td>
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<td>PTA 121</td>
<td>Basic Skills for the PTA Lab</td>
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<td>PTA 170</td>
<td>Clinical Practicum I</td>
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<tr>
<td>PTA 222</td>
<td>Pathology &amp; Rehabilitation of Orthopedic Conditions</td>
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<tr>
<td>PTA 223</td>
<td>Pathology &amp; Rehabilitation of Orthopedic Conditions Lab</td>
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<tr>
<td>PTA 234</td>
<td>Pathology &amp; Rehabilitation of Neurological &amp; Pediatric Conditions</td>
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<td>PTA 233</td>
<td>Pathology &amp; Rehabilitation of Neurological &amp; Pediatric Conditions Lab</td>
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<tr>
<td>PTA 202</td>
<td>Therapeutic Modalities in Physical Therapy</td>
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<td>PTA 203</td>
<td>Therapeutic Modalities in Physical Therapy Lab</td>
<td>2</td>
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<tr>
<td>PTA 240</td>
<td>Clinical Practicum II</td>
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<tr>
<td>PTA 256</td>
<td>Pathology &amp; Rehabilitation of Special Populations &amp; Conditions</td>
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<td>PTA 255</td>
<td>Pathology &amp; Rehabilitation of Special Populations &amp; Conditions Lab</td>
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<tr>
<td>PTA 260</td>
<td>Seminar in Physical Therapy</td>
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<tr>
<td>PTA 280</td>
<td>Clinical Practicum III</td>
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### 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)*

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<td>Statistical Process Control</td>
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<tr>
<td>ELT 107</td>
<td>Computer Applications for Technicians</td>
<td>4</td>
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<tr>
<td>ISX 101</td>
<td>Introduction to Industrial Safety</td>
<td>3</td>
</tr>
<tr>
<td>PL 101</td>
<td>Plastic Processes and Materials</td>
<td>4</td>
</tr>
<tr>
<td>PL 151</td>
<td>Polymer Science &amp; Testing</td>
<td>4</td>
</tr>
<tr>
<td>PL 251</td>
<td>Injection Molding OR</td>
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</tr>
<tr>
<td>PL 261</td>
<td>Plastics Extrusion</td>
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<td><strong>Total Credits</strong></td>
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### Plumbing Technology

Installing water supply and waste disposal systems in residential, commercial, and highly complex industrial sites is the focus of the plumbing program. In addition to practical experiences, instruction is given in laws and codes, blueprint reading, drawing, special equipment and other related areas.

Progression in the Plumbing technology program is contingent upon achievement of a grade of “C” or better in each PLB and BRX course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

### Associate in Applied Science

#### Plumbing Technology - 4605037019

*(Offered at ELC)*

**General Education:**

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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
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<td>Writing I</td>
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<tr>
<td></td>
<td>Quantitative Reasoning</td>
<td>3</td>
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<tr>
<td></td>
<td>Social/Behavioral Sciences</td>
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</tr>
<tr>
<td></td>
<td>Heritage/Humanities</td>
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<tr>
<td></td>
<td>Natural Sciences</td>
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<td></td>
<td>Oral Communications</td>
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<tr>
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</tr>
<tr>
<td>PLB 151</td>
<td>Basic Plumbing Skills OR</td>
<td></td>
</tr>
<tr>
<td>PLB 100</td>
<td>Basic Theory of Plumbing ND</td>
<td></td>
</tr>
<tr>
<td>PLB 105</td>
<td>Plumbing Principles</td>
<td></td>
</tr>
<tr>
<td>PLB 160</td>
<td>Plumbing Systems, DWV &amp; Water</td>
<td></td>
</tr>
<tr>
<td>PLB 161</td>
<td>Rough-In of Plumbing Fixtures</td>
<td></td>
</tr>
<tr>
<td>PLB 250</td>
<td>Plumbing Appliances &amp; Fixtures</td>
<td></td>
</tr>
<tr>
<td>PLB 251</td>
<td>Pumps &amp; Water Heaters</td>
<td></td>
</tr>
<tr>
<td>PLB 260</td>
<td>Service AND</td>
<td></td>
</tr>
<tr>
<td>PLB 261</td>
<td>Advanced Plumbing Lab OR</td>
<td></td>
</tr>
<tr>
<td>PLB 265</td>
<td>Valve &amp; Faucet Repairs AND</td>
<td></td>
</tr>
<tr>
<td>PLB 266</td>
<td>Water Heater Service &amp; Replacement AND</td>
<td></td>
</tr>
<tr>
<td>PLB 269</td>
<td>Sewer &amp; Drain Cleaning</td>
<td></td>
</tr>
<tr>
<td>PLB 262</td>
<td>Back Flow Prevention</td>
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</tr>
<tr>
<td>PLB 270</td>
<td>License Preparation for Journeyman Exam</td>
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</tr>
<tr>
<td>PLB 298</td>
<td>Plumbing Practicum/Repairs &amp; Maintenance OR</td>
<td></td>
</tr>
<tr>
<td>PLB 299</td>
<td>Plumbing Cooperative Education</td>
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<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>
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</tr>
<tr>
<td>EFM 100</td>
<td>Personal Financial Management</td>
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</tr>
<tr>
<td>WPP 200</td>
<td>Workplace Principles OR</td>
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</tr>
<tr>
<td>BAS 250</td>
<td>Business Employability Seminar</td>
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</tr>
<tr>
<td>ISX 101</td>
<td>Introduction to Industrial Safety OR</td>
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### Diploma

#### Plumber Mechanic - 4605034019

*(Offered at ELC, JFC, MYC)*

**General Education:**

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<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>1</td>
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<td>2</td>
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### Technical Courses:

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</tr>
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<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>
<td>2</td>
</tr>
<tr>
<td>PLB 250</td>
<td>Plumbing Appliances &amp; Fixtures</td>
<td>3</td>
</tr>
<tr>
<td>PLB 251</td>
<td>Pumps &amp; Water Heaters</td>
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<td>PLB 260</td>
<td>Service AND</td>
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<tr>
<td>PLB 261</td>
<td>Advanced Plumbing Lab OR</td>
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<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>
<td>(1)</td>
</tr>
<tr>
<td>PLB 262</td>
<td>Backflow Prevention</td>
<td>3</td>
</tr>
<tr>
<td>PLB 270</td>
<td>License Preparation for Journeyman Exam OR</td>
<td>3</td>
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<tr>
<td>PLB 298</td>
<td>Plumbing Practicum/Repairs &amp; Maintenance OR</td>
<td>4</td>
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<tr>
<td>PLB 299</td>
<td>Plumbing Cooperative Education</td>
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### Certificates

**1st Year Plumber Mechanic - 4605033109**  
*(Offered at ELC, JFC, MYC)*

<table>
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<th>Course Description</th>
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<tbody>
<tr>
<td>PLB 150</td>
<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>
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</tr>
<tr>
<td>PLB 161</td>
<td>Rough-In of Plumbing Fixtures</td>
<td>2</td>
</tr>
<tr>
<td>PLB 250</td>
<td>Plumbing Appliances &amp; Fixtures</td>
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<tr>
<td>PLB 251</td>
<td>Pumps &amp; Water Heaters</td>
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**2nd Year Plumber Mechanic* - 4605033119**  
*(Offered at ELC, JFC, MYC)*

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<tbody>
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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>
<td>2</td>
</tr>
<tr>
<td>PLB 250</td>
<td>Plumbing Appliances &amp; Fixtures</td>
<td>3</td>
</tr>
<tr>
<td>PLB 251</td>
<td>Pumps &amp; Water Heaters</td>
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<td>24-26</td>
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*Requires that the graduate pass a written test with 80% accuracy and a 3-part performance test.

**Certified Backflow Tester* - 4605033079**  
*(Offered at BSC, ELC, JFC, MYC)*

<table>
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<th>Course Description</th>
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<tr>
<td>PLB 262</td>
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**Finish Plumber - 4605033069**  
*(Offered at BSC, ELC, JFC, MYC)*

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<td>Basic Plumbing Skills OR</td>
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</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 250</td>
<td>Plumbing Appliances &amp; Fixtures</td>
<td>3</td>
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<tr>
<td>PLB 251</td>
<td>Pumps &amp; Water Heaters</td>
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**Maintenance Plumber - 4605033049**  
*(Offered at BSC, ELC, JFC, MYC)*

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<td>PLB 151</td>
<td>Basic Plumbing Skills OR</td>
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<td>Basic Theory of Plumbing AND</td>
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<td>PLB 105</td>
<td>Plumbing Principles</td>
<td>(3)</td>
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<tr>
<td>PLB 115</td>
<td>Introduction to Industrial Safety</td>
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**Plumber Estimator - 4605033099**  
*(Offered at BSC, ELC, JFC, MYC)*

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<tbody>
<tr>
<td>PLB 150</td>
<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 250</td>
<td>Plumbing Appliances &amp; Fixtures</td>
<td>3</td>
</tr>
<tr>
<td>PLB 251</td>
<td>Pumps &amp; Water Heaters</td>
<td>2</td>
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<tr>
<td>PLB 252</td>
<td>Backflow Prevention</td>
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<tr>
<td>PLB 270</td>
<td>License Preparation for Journeyman Exam OR</td>
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<td>BRX 220</td>
<td>Blueprint Reading for Construction</td>
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<td>WPP 200</td>
<td>Workplace Principles OR</td>
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<td>Business Employability Seminar</td>
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**Plumber’s Helper - 4605033129**  
*(Offered at ELC, GTW, JFC, MYC)*

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<td>Plumbing, Introduction to the Trade AND</td>
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<td>PLB 151</td>
<td>Basic Plumbing Skills OR</td>
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<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>
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<tr>
<td><strong>Total</strong></td>
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</table>
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.
The diploma in Jewelry/Metals Technician and the certificate in Jewelry/Metals Fundamentals will afford students the opportunity to acquire specialized and basic technical skills as jewelry makers and technicians. The Jewelry Studio Certificate will give the student an intensive foundation in metals technique and studio practice. The diploma and certificate programs signify that the student possesses a basic understanding of jewelry design and making procedures necessary for entry-level positions in the custom or commercial jewelry industry.

The AAS Track in Bluegrass & Traditional Music prepares a student to begin work as a professional bluegrass and traditional musician in the areas of performance, touring, studio recording, studio engineering, and song writing. The track also provides training in music business, management and event promotion while providing the student preparation to pursue a four-year degree. Program studies will offer in-depth mentoring and “real world” performance situations for solo, ensemble, and instrumental musicians as well as recording session set-up, sound enhancement and band management.

The diploma in Bluegrass & Traditional Studio Artist and the certificate in Bluegrass & Traditional Music Fundamentals will afford students the opportunity to acquire training in the basics of performance, recording, songwriting and management. The diploma and certificate programs signify that the student possesses a basic understanding of the major components necessary for an entry-level career in Bluegrass and Traditional Music.

The AAS track in Ceramics prepares a student to start a business in studio production for pottery, tiles, slip casting, mold making and/or kiln building; begin employment as a studio technician to maintain equipment and manage various kinds of kiln firings; work for commercial ceramics businesses as a production designer, decorator, mold-maker, decal maker, conservationist, kiln and/or glaze technician; or to pursue higher degrees in the field of ceramics. The program is designed to prepare students to become independent and self-reliant ceramists 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>
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<tr>
<td>MAT 110</td>
<td>Applied Mathematics OR ................................. 3</td>
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<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications OR .... 3</td>
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<td>COM 181</td>
<td>Basic Public Speaking .................................. (3)</td>
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<td>Heritage/Humanities** ................................ 3</td>
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<td></td>
<td>Natural Sciences ........................................ 3-4</td>
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<td>Social/Behavioral Sciences ............................ 3-4</td>
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**HUM 202 for Bluegrass and Traditional Music Track**

### Bluegrass and Traditional Music Track - 500201703

(Offered at HZC)

<table>
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<th>Course</th>
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<tr>
<td>BAS 200</td>
<td>Small Business Management ............................. 3</td>
</tr>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I .......................... 3</td>
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<td>MUS 174</td>
<td>Theory for Non-Music Majors ............................ 3</td>
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<tr>
<td>MUC 150</td>
<td>Classic Instruction to Piano OR .......................... 0-1</td>
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<tr>
<td>PSM 101</td>
<td>Bluegrass &amp; Traditional Music History I .................. 3</td>
</tr>
<tr>
<td>PSM 105</td>
<td>Recording I ............................................... 1</td>
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<tr>
<td>PSM 107</td>
<td>Songwriting I ............................................. 1</td>
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<tr>
<td>PSM 112</td>
<td>Individual String Instrument Instruction x 4 ............. 4</td>
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<tr>
<td>PSM 113</td>
<td>Guitar I OR ............................................... 0-1</td>
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<td>Competency by audition .................................</td>
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<tr>
<td>PSM 114</td>
<td>Bluegrass &amp; Traditional Band/Ensemble x4 ................ 8</td>
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<tr>
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<td>Bluegrass &amp; Traditional Harmony/Part Singing .............. 2</td>
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<td>PSM 121</td>
<td>Bluegrass &amp; Traditional Music History II ................. 3</td>
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<td>PSM 125</td>
<td>Recording II OR .......................................... 2</td>
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<td>PSM 231</td>
<td>Bluegrass &amp; Traditional Music III ......................... 3</td>
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<td>PSM 235</td>
<td>Recording III OR ......................................... 2</td>
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<td>PSM 217</td>
<td>Songwriting III ............................................. (2)</td>
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<td>PSM 245</td>
<td>Recording IV OR ............................................ 2</td>
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### Total Credits

60-63

### Ceramics Track - 500201704

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<td>Drawing I ............................................... 3</td>
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<tr>
<td>ART 112</td>
<td>2-Dimensional Design ..................................... 3</td>
</tr>
<tr>
<td>ART 113</td>
<td>3-Dimensional Design ..................................... 3</td>
</tr>
<tr>
<td>BAS 200</td>
<td>Small Business Management ................................ 3</td>
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<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I ............................ 3</td>
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<tr>
<td>PSC 112</td>
<td>Ceramics I ................................................ 3</td>
</tr>
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<td>PSC 115</td>
<td>Ceramics II ............................................... 3</td>
</tr>
<tr>
<td>PSC 117</td>
<td>Glaze Calculations ........................................ 3</td>
</tr>
<tr>
<td>PSC 210</td>
<td>Ceramics III ............................................... 3</td>
</tr>
<tr>
<td>PSC 211</td>
<td>Kiln Operation and Design .................................. 3</td>
</tr>
<tr>
<td>PSC 212</td>
<td>Ceramic Production Techniques ............................ 3</td>
</tr>
<tr>
<td>PSC 215</td>
<td>Ceramics IV ............................................... 3</td>
</tr>
<tr>
<td>PSC 220</td>
<td>Ceramics Product Development ......................... 3</td>
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<td>PSC 230</td>
<td>Ceramics V ............................................... 3</td>
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<td>PSA 240</td>
<td>Professional Artist Seminar .............................. 3</td>
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### Total Credits

63-64

### Jewelry/Metals Track - 500201702

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<td>ART 113</td>
<td>2-Dimensional Design ..................................... 3</td>
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<tr>
<td>ART 130</td>
<td>3-Dimensional Design ..................................... 3</td>
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<td>Small Business Management ................................ 3</td>
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<td>ACT 101</td>
<td>Fundamentals of Accounting I ............................ 3</td>
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<td>PSJ 110</td>
<td>Jewelry/Metals I ......................................... 3</td>
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<tr>
<td>PSJ 115</td>
<td>Jewelry/Metals II ........................................ 3</td>
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<tr>
<td>PSJ 116</td>
<td>Ancient Techniques ....................................... 3</td>
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<tr>
<td>PSJ 117</td>
<td>Metal Casting /Finishing Techniques ..................... 2</td>
</tr>
<tr>
<td>PSJ 210</td>
<td>Jewelry/Metals III ........................................ 3</td>
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<td>PSJ 211</td>
<td>Hollowware and Metal Forming ............................. 3</td>
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<td>PSJ 212</td>
<td>Metallurgy of Precious Metals ............................. 2</td>
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<td>PSJ 215</td>
<td>Jewelry/Metals IV ........................................ 3</td>
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<td>PSJ 216</td>
<td>Stone Setting .............................................. 3</td>
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<td>PSJ 220</td>
<td>Jewelry/Metals Product Development ..................... 2</td>
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### Total Credits

63-64

### Total Credits

60-63

PSJ 230 Jewelry/Metals IV (Optional) ........................................ (6)
Wood/Furniture Design Track - 500201701

| ART 110 | Drawing I  | 3 |
| ART 112 | 2-Dimensional Design  | 3 |
| ART 113 | 3-Dimensional Design  | 3 |
| BAS 200 | Small Business Management  | 3 |
| ACT 101 | Fundamentals of Accounting I  | 3 |
| PSW 111 | Introduction to Furniture Making  | 3 |
| PSW 115 | Furniture Making II  | 3 |
| PSW 116 | Wood Finishing  | 2 |
| PSW 210 | Furniture Making III  | 3 |
| PSW 211 | Wood Bending and Veneering  | 3 |
| PSW 212 | Chair Design  | 3 |
| PSW 215 | Furniture Making IV  | 3 |
| PSW 220 | Furniture/Wood Product Development  | 2 |
| PSA 240 | Professional Artist Seminar  | 3 |
| **Sub-Total** | 43 |

**Total Credits**: 61-62

PSW 230 | Furniture Making V (Optional)  | (6)

**Diplomas**

Bluegrass & Traditional Studio Artist - 5002014039

(Offered at HZC)

**General Education:**

Area 1 = Written/Oral Communications, and/or Heritag/Humanities ............................................ 3-6
Area 2 = Social/Behavioral Science, Natural Science and/or Quantitative Reasoning.................................. 3-6

**Subtotal**: 9

**Support Courses**

BAS 200 | Small Business Management  | 3 |
HUM 202 | Survey of Appalachian Studies I  | 3 |
MLIS 174 | Theory for Non-Music Majors  | 3 |

**Subtotal**: 9

**Technical Courses**

Digital Literacy OR ........................................... 0-3
Digital Literacy Competency by exam
PSM 101 | Bluegrass & Traditional Music History I  | 3 |
PSM 113 | Guitar I OR  | 0-1
Competency by audition
PSM 105 | Recording I  | 1 |
PSM 107 | Songwriting I  | 1 |
PSM 112 | Individual String Instrument Instruction x4  | 4 |
PSM 114 | Bluegrass & Traditional Band/Ensemble x4  | 8 |
PSM 241 | Bluegrass & Traditional Music IV (elective)  | 0-3 |
PSM 250 | Field Experience/Production/Business (elective)  | 0-3 |

**Subtotal**: 17-27

**Total Credits**: 35-45

Ceramics Studio Technician - 5002014049

| ENG 101 | Writing I  | 3 |
| MAT 110 | Applied Mathematics OR  | 3 |
|  | Any higher level Quantitative Reasoning course  | (3) |

**Subtotal**: 6

**Technical/Support Courses**

Digital Literacy OR ........................................... 0-3
Digital Competency by exam
ART 110 | Drawing I  | 3 |
ART 112 | 3-Dimensional Design  | 3 |
BAS 200 | Small Business Management  | 3 |
PSC 112 | Ceramics I  | 3 |
PSC 115 | Ceramics II  | 3 |
PSC 117 | Glaze Calculations  | 2 |

PSC 210 | Ceramics III  | 3 |
PSC 211 | Kiln Operation and Design  | 3 |
PSC 212 | Ceramic Production Techniques  | 3 |
PSC 215 | Advanced Ceramics IV  | 3 |

**Subtotal**: 30-33

**Total Credits**: 36-39

Jewelry/Metals Technician - 5002014029

| ENG 101 | Writing I  | 3 |
| MAT 110 | Applied Mathematics OR  | 3 |
|  | Any higher level math  | 3 |

**Subtotal**: 6

**Technical/Support Courses**

Digital Literacy OR ........................................... 0-3
Digital Competency by exam
ART 110 | Drawing I  | 3 |
ART 112 | 3-Dimensional Design  | 3 |
BAS 200 | Small Business Management  | 3 |
PSJ 110 | Jewelry/Metals I  | 3 |
PSJ 113 | Jewelry/Metals II  | 3 |
PSJ 117 | Metal Casting /Finishing Techniques  | 2 |
PSJ 210 | Jewelry/Metals III  | 3 |
PSJ 211 | Hollowware and Metal Forming  | 3 |
PSJ 212 | Metalurgy of Precious Metals  | 2 |
PSJ 215 | Jewelry/Metals IV  | 3 |
| PSJ 216 | Stone Setting  | 3 |

**Subtotal**: 31-34

**Total Credits**: 37-40

Wood Studio Technician - 5002014019

| ENG 101 | Writing I  | 3 |
| MAT 110 | Applied Mathematics OR  | 3 |
|  | Any higher level Quantitative Reasoning course  | (3) |

**Subtotal**: 6

**Technical/Support Courses**

Digital Literacy OR ........................................... 0-3
Digital Competency by exam
ART 110 | Drawing I  | 3 |
ART 112 | 3-Dimensional Design  | 3 |
BAS 200 | Small Business Management  | 3 |
PSW 111 | Introduction to Furniture Making  | 3 |
PSW 115 | Furniture Making II  | 3 |
PSW 116 | Wood Finishing  | 2 |
PSW 117 | Wood Turning for Furniture  | 3 |
PSW 211 | Wood Bending and Veneering  | 3 |
PSW 215 | Furniture Making IV  | 3 |
PSW 220 | Furniture/Wood Product Development  | 2 |

**Subtotal**: 28-31

**Total Credits**: 34-37

Certificates

Audio Recording – 5002013089

(Offers at HZC)

| BAS 200 | Small Business Management  | 3 |

**Guided Electives (Select 2 of the following):**

PSM 101 | Bluegrass & Traditional Music History I  | 3 |
MUS 100 | Intro to Music  | 3 |
MUS 104 | Introduction to Jazz History  | 3 |
MUS 222 | History and Sociology of Rock Music  | 3 |

**Technical Electives (Select 1 of the following):**

PSM 107 | Songwriting I  | 1 |
PSM 112 | Individual Stringed Instruction  | 1 |
PSM 113 | Guitar I  | 1 |

**Total Credits**: 34-37
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<th>Course Title</th>
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<tbody>
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<td>PSM 125</td>
<td>Recording II</td>
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<td>PSM 235</td>
<td>Recording III</td>
<td>2</td>
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<tr>
<td>PSM 245</td>
<td>Recording IV</td>
<td>2</td>
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**Technical Courses**

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<td>PSM 105</td>
<td>Recording I</td>
<td>1</td>
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<tr>
<td>PSM 107</td>
<td>Songwriting I</td>
<td>1</td>
</tr>
<tr>
<td>PSM 114</td>
<td>Bluegrass &amp; Traditional Band/Ensemble x2</td>
<td>4</td>
</tr>
<tr>
<td>PSM 101</td>
<td>Bluegrass &amp; Traditional Music History I</td>
<td>3</td>
</tr>
<tr>
<td>PSM 113</td>
<td>Guitar I OR</td>
<td>0-1</td>
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**Ceramics Fundamentals - 5002013049**

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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>
<tr>
<td>PSC 112</td>
<td>Ceramics I</td>
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<tr>
<td>PSC 115</td>
<td>Ceramics II</td>
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<tr>
<td>PSC 117</td>
<td>Glaze Calculations</td>
<td>3</td>
</tr>
<tr>
<td>PSC 211</td>
<td>Kiln Operation and Design</td>
<td>3</td>
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**Ceramics Studio - 5002013079**

<table>
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<tbody>
<tr>
<td>PSC 112</td>
<td>Ceramics I</td>
<td>3</td>
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<tr>
<td>PSC 115</td>
<td>Ceramics II</td>
<td>3</td>
</tr>
<tr>
<td>PSC 117</td>
<td>Glaze Calculations</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>Ceramics Production Techniques</td>
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**Furniture Making Fundamentals - 5002013029**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>ART 110</td>
<td>Drawing 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>
</tr>
<tr>
<td>PSW 211</td>
<td>Wood Bending and Veneering</td>
<td>3</td>
</tr>
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<td><strong>Total Credits</strong></td>
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**Jewelry/Metals Fundamentals - 5002013019**

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<tr>
<td>ART 110</td>
<td>Drawing I</td>
<td>3</td>
</tr>
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<td>ART 112</td>
<td>2-Dimensional Design</td>
<td>3</td>
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<td>PSJ 110</td>
<td>Jewelry/Metals I</td>
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**Bluegrass & Traditional Music Fundamentals - 5002013039**

*Offered at HZC*

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<td>BAS 200</td>
<td>Small Business Management</td>
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**Wood Furniture Studio - 5002013059**

<table>
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<tr>
<td>PSW 111</td>
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<td>PSW 115</td>
<td>Furniture Making II</td>
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<tr>
<td>PSW 116</td>
<td>Wood Finishing</td>
<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 211</td>
<td>Wood Bending and Veneering</td>
<td>3</td>
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<td><strong>Total Credits</strong></td>
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**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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PLW 130</td>
<td>Principles of Biomedical Sciences</td>
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<td>PLW 135</td>
<td>Principles of Human Body Systems</td>
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<td>PLW 140</td>
<td>Medical Interventions</td>
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<td>PLW 145</td>
<td>Biomedical Innovations</td>
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**Engineering Related – PLTW – 1515993019**

*Offered at BLC, OWC, MDC, SEC*

<table>
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<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>PLW 100</td>
<td>Introduction to Engineering Design</td>
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<td>PLW 125</td>
<td>Principles of Engineering</td>
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<td>PLW 150</td>
<td>Digital Electronics</td>
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<td>PLW 200</td>
<td>Aerospace Engineering or</td>
<td>4</td>
</tr>
<tr>
<td>PLW 225</td>
<td>Civil Engineering and Architecture or</td>
<td>(4)</td>
</tr>
<tr>
<td>PLW 250</td>
<td>Computer Integrated Manufacturing</td>
<td>(4)</td>
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<tr>
<td>PLW 295</td>
<td>Engineering Design and Development</td>
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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 quantitative reasoning course. Upon completion of the program, the graduate is eligible to take the American Registry of Radiologic Technologists (ARRT) registry examination to become a registered radiographer. Radiographers may find positions in hospitals, health clinics, and physicians' offices. The curriculum requires attendance in the summer session, fall and spring semesters. Note: CPR certificate must be obtained prior to enrolling in IMG 100 or IMG 104, IMG 106 and IMG 108; or DMI 110 and certification must be kept current throughout the program. Note: Documentation of digital literacy as defined by KCTCS is required prior to admission to IMG courses.

Advanced Imaging in Radiography focuses on the areas of Computed Tomography (CT) and Magnetic Resonance Imaging (MRI) in the Radiological Sciences. Didactic and clinical instruction prepares the technologist to work in the areas of CT and MRI in the healthcare setting and to sit for the Advanced Board Exams given by the American Registry of Radiologic Technologists. These courses are offered for technologists who are currently registered by the American Registry of Radiologic Technologists in Radiography or the Nuclear Medicine Technology Certification Board in Nuclear Medicine, or students who have completed one year and are currently enrolled in 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.) 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
- ENG 101 Writing I ........................................ 3
- BIO 137 Human Anatomy & Physiology I ......................... 4
- BIO 139 Human Anatomy & Physiology II ......................... 4
- MAT 150 College Algebra OR ........................................ 3
- Higher Level Quantitative Reasoning Course .................. (3)

**Subtotal** 20

**Pathway 1 – 510911701**

*(Offered at BLC, HZC, SEC)*

**Additional General Education:**

- PHY 172 Physics for Health Sciences OR .......................... 2
- PHY 152 Introduction to Physics OR .................................. 3
- PHY 171 Applied Physics ............................................ (4)

**Subtotal** 2-4

**Support Course:**

- CLA 131 Medical Terminology from Greek & Latin OR ........ 3
- AHS 115 Medical Terminology OR .................................. (3)
- AHS 120 Medical Terminology ..................................... (1)

**Subtotal** 1-3

**Technical Courses:**

- IMG 100 Radiography I .............................................. 7
- IMG 101 Clinical I ..................................................... 4
- IMG 110 Radiography II .............................................. 7
- IMG 111 Clinical II ................................................... 4
- IMG 201 Clinical III ................................................... 3
- IMG 210 Radiography IV ............................................. 4
- IMG 211 Clinical IV .................................................... 6
- IMG 220 Radiography V ................................................ 4
- IMG 221 Clinical V ..................................................... 6

**Subtotal** 45

**Total Credits Pathway 1** 68-72

**Pathway 2 – 510911702**

*(Offered at ELC, HPC, JFC, MDC, SEC)*

**Additional General Education:**

- PHY 152 Introduction to Physics OR ............................... 3
- PHY 171 Applied Physics ............................................. (4)

**Subtotal** 3-4

**Technical Courses:**

- AHS 120 Medical Terminology OR ................................ 1
- AHS 115 Medical Terminology ...................................... (3)
- 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 III ...................................... 3
- IMG 209 Clinical Practice III ...................................... 3
- IMG 214 Imaging Equipment ........................................ 2
- IMG 216 Basic Computed Tomography ........................... 1
- IMG 219 Clinical Practice IV ....................................... 6
- IMG 224 Radiation Protection & Biology ........................ 2
- IMG 226 Radiography Pathology .................................. 1
- IMG 228 Radiography Seminar ..................................... 2
- IMG 229 Clinical Practice V ........................................ 6

**Subtotal** 44-46

**Total Credits Pathway 2** 67-70

* NAA 100 may be substituted for IMG 106.

**Pathway 3 – 510911703**

*(Offered at OWC, SMC, SKY, WKC)*

**Technical Courses:**

- DMI 102 Medical Terminology for Radiography* .............. 1
- DMI 106 Patient Care and Ethics for Radiographers .......... 3
- DMI 108 Radiographic Positioning and Procedures I ......... 4
- DMI 110 Radiography Practicum I ................................ 1
- DMI 112 Principles of X-Ray Production, Exposure, and Image Production ....................................... 3
- DMI 115 Pharmacology for Radiographers ....................... 2
- DMI 118 Radiographic Positioning and Procedures II ....... 4
- DMI 120 Radiography Practicum .................................... 2
- DMI 128 Radiographic Positioning and Procedures III ....... 3
- DMI 130 Radiography Practicum III .............................. 2
- DMI 212 Radiographic Equipment and Quality Management .. 3
- DMI 220 Radiography Practicum IV ................................ 4
- DMI 222 Image Analysis ............................................... 2
- DMI 224 Radiation Protection and Biology ..................... 2
- DMI 226 Radiographic Anatomy and Pathology ............... 3
- DMI 228 Seminars in Radiography ................................. 3
- DMI 230 Radiography Practicum V ................................ 4

**Subtotal** 46

**Total** 66

* AHS 115 or AHS 120 may be substituted for DMI 102.
Certificate

Advanced Imaging in Radiography - 5109113029

Core

<table>
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<tr>
<th>IMG</th>
<th>Course Description</th>
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<td>Sectional Anatomy for Advanced Imaging</td>
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<tr>
<td>IMG 240</td>
<td>Pathology for Advanced Medical Imaging Modalities</td>
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Must Select One of the Tracks Below to complete the certificate.

Computed Tomography Track – 510911301

*(Offered at ELC, HZC, JFC, 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 JFC, SMC, WFC)*

| 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 ELC, HZC, JFC, SEC, SMC)*

| IMG 255 | Magnetic Resonance Physics and Instrumentation           | 3       |
| IMG 265 | Magnetic Resonance Imaging Technology                     | 3       |
| **Subtotal** |                                                        | **6**   |

Total Credits: 12

Respiratory Care

The Respiratory Care program prepares the graduate to take an active role in the maintenance and/or restoration of cardiopulmonary homeostasis. The curriculum includes intensive course work in the supporting sciences and general education areas. Classroom instruction is supplemented with learning experiences in the campus laboratory and in area clinical affiliates. Students enrolled in the Respiratory Care program are required to achieve a minimum grade of "C" in each Respiratory Care course.

Although hospitals employ the majority of respiratory therapists, other employers include home care providers, medical clinics, nursing homes, and industry. Graduates are qualified to take the National Board for Respiratory Care examinations to earn the Certified Respiratory Therapist (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.

* Note: Digital literacy must be documented by competency exam or by completing a digital literacy course.

Note: Hours Exception (67-70 for the A.A.S) approved by the KCTCS Board of Regents in June 2010.

Associate in Applied Science

Respiratory Therapist - 5109087089

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

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<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology*</td>
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<td>Human Anatomy &amp; Physiology II*</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra* OR</td>
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<tr>
<td>MAT 110</td>
<td>Applied Mathematics** OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 146</td>
<td>Contemporary College Mathematics* OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking*** OR</td>
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<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication***</td>
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<tr>
<td>SOC 101</td>
<td>Introduction to Sociology*** OR</td>
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<td>PSY 110</td>
<td>General Psychology***</td>
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<td>ENG 101</td>
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<td>Heritance*</td>
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Technical Courses

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<tr>
<td>RCP 120</td>
<td>Theory &amp; Principles of Respiratory Care OR</td>
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<td>RCP 122</td>
<td>Fundamentals of Respiratory Care#</td>
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<td>RCP 125</td>
<td>Cardiopulmonary Evaluation OR</td>
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<td>RCP 140</td>
<td>Cardiopulmonary Assessment#</td>
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<td>RCP 135</td>
<td>Respiratory Pharmacology</td>
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<tr>
<td>RCP 150</td>
<td>Clinical Practice I OR</td>
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<td>RCP 121</td>
<td>Respiratory Care Practice I#</td>
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<td>RCP 175</td>
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<td>RCP 180</td>
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<td>RCP 190</td>
<td>Advanced Ventilatory Support OR</td>
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<td>RCP 185</td>
<td>Introduction to Mechanical Ventilation# AND</td>
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<td>Patient-Ventilator System Management#</td>
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<td>RCP 200</td>
<td>Clinical Practices III OR</td>
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<td>RCP 201</td>
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<td>RCP 212</td>
<td>Neonatal/Pediatric Respiratory Care</td>
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<td>RCP 225</td>
<td>Clinical Practice IV OR</td>
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<td>Preventive and Long Term Respiratory Care</td>
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Total Credits: 66-68

*General Education Course
**Not accepted at Elizabethtown CTC, Jefferson CTC, Madisonville CC and Southcentral Kentucky CTC for Respiratory Care degree program credit.
***Courses required at Elizabethtown CTC, Jefferson CTC, Madisonville CC, and Southcentral Kentucky CTC

# RCP courses currently only offered and required at Bluegrass CTC for degree completion at that college.

Certificates

Electrocardiographic and Cardiac Monitoring Technician+ - 5109083049

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology*</td>
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<tr>
<td>MAT 146</td>
<td>Contemporary College Mathematics* OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics** OR</td>
<td>3</td>
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</tbody>
</table>

*Note: Hours Exception (67-70 for the A.A.S) approved by the KCTCS Board of Regents in June 2010.*
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, is provided. The security system available is designed to be comprehensive in nature.

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 Supply Chain Committee on Homeland Security issued a comprehensive assessment (February 2004) on the United State’s levels of preparation against terrorist activity. The Committee concluded in part “Pathways to the United States by land, sea, or 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 include access control systems; intrusion detection, both interior and exterior; crisis management; national incident management systems; contracting guard forces; international and domestic terrorism and their threat to America; security surveys/security audits; managing a security operation; IT security; CCTV; contingency planning; locks and locking devices; workplace violence; and perimeter security.

The Safe & Lock Technician program provides a comprehensive hands-on knowledge of safes and locks. This program will provide the technician with the training to service, maintain and troubleshoot safes and locks. Topics covered are electronic access control systems, safe lock servicing – electronic and mechanical, combination lock manipulation, basic safe penetration, locks and locking devices, safe and safe hardware, security hardware, electronic and mechanical door locks.

For all programs: Students will be required to undergo a criminal background investigation. If a student is presently employed by a law enforcement or federal agency that requires criminal checks, this requirement may be waived by LSI.

Certificates

Safe & Lock Technician - 4301123040

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
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<tr>
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</table>

Electives: A minimum of 10 credit hours must be taken from this list of electives.

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<td>2</td>
</tr>
<tr>
<td>LSI 130 GSA: Lock, Vault &amp; Container</td>
<td>4</td>
</tr>
<tr>
<td>LSI 151 Basic Safe Penetration</td>
<td>1</td>
</tr>
<tr>
<td>LSI 152 Combination Lock Manipulation</td>
<td>1</td>
</tr>
<tr>
<td>LSI 160 Fundamentals of Electricity</td>
<td>2</td>
</tr>
<tr>
<td>LSI 170 Electronic Access Control</td>
<td>2</td>
</tr>
<tr>
<td>LSI 182 Managing Security Operations</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

*General Education Course

Security Management Coordinator - 4301123010

(Offered at BLC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSI 120 Comprehensive Security Specialist</td>
<td>4</td>
</tr>
<tr>
<td>LSI 140 Managing Terrorism &amp; Other Crimes</td>
<td>1</td>
</tr>
<tr>
<td>LSI 150 Professional Locksmithing</td>
<td>4</td>
</tr>
<tr>
<td>Electives</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

Electives: A minimum of 3 credit hours must be taken from this list of electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSI 100 Fundamental Principles of Physical Security</td>
<td>2</td>
</tr>
<tr>
<td>LSI 105 Force Protection</td>
<td>3</td>
</tr>
<tr>
<td>LSI 110 Security Surveys</td>
<td>2</td>
</tr>
<tr>
<td>LSI 115 Command Security Officer Training</td>
<td>4</td>
</tr>
<tr>
<td>LSI 130 GSA: Locks, Vaults &amp; Containers</td>
<td>4</td>
</tr>
<tr>
<td>LSI 131 GSA: Locks, Vaults &amp; Containers Certified Inspector Training</td>
<td>1</td>
</tr>
<tr>
<td>LSI 151 Basic Safe Penetration</td>
<td>1</td>
</tr>
<tr>
<td>LSI 152 Combination Lock Manipulation</td>
<td>1</td>
</tr>
<tr>
<td>LSI 153 Safe Lock Servicing - Mechanical and Electronic</td>
<td>2</td>
</tr>
<tr>
<td>LSI 160 Fundamentals of Electricity</td>
<td>2</td>
</tr>
<tr>
<td>LSI 170 Electronic Access Control</td>
<td>2</td>
</tr>
<tr>
<td>LSI 180 Security and Crime Prevention Management</td>
<td>1</td>
</tr>
<tr>
<td>LSI 185 Security and Crime Prevention Countermeasures</td>
<td>1</td>
</tr>
<tr>
<td>LSI 190 Security Hardware &amp; Bypass Techniques</td>
<td>1</td>
</tr>
<tr>
<td>LSI 195 Tactical Lock (restricted enrollment)</td>
<td>8</td>
</tr>
</tbody>
</table>

204
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, GTW, MDC, SEC)

General Education Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 125</td>
<td>3</td>
</tr>
<tr>
<td>BAS 126</td>
<td>3</td>
</tr>
</tbody>
</table>

Subtotal 6

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 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 ELC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 135</td>
<td>4</td>
</tr>
<tr>
<td>ENG 101</td>
<td>3</td>
</tr>
<tr>
<td>MAT 150</td>
<td>3</td>
</tr>
<tr>
<td>MAT 115</td>
<td>3</td>
</tr>
</tbody>
</table>

Subtotal 16

Technical Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUR 100</td>
<td>0-3</td>
</tr>
<tr>
<td>SUR 101</td>
<td>9</td>
</tr>
<tr>
<td>SUR 130</td>
<td>1</td>
</tr>
<tr>
<td>SUR 200</td>
<td>2</td>
</tr>
<tr>
<td>SUR 201</td>
<td>6</td>
</tr>
</tbody>
</table>

Certificate

Surgical First Assisting - 5109093020

(Offered at MDC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUR 280</td>
<td>5</td>
</tr>
<tr>
<td>SUR 282</td>
<td>3</td>
</tr>
<tr>
<td>SUR 284</td>
<td>3</td>
</tr>
<tr>
<td>SUR 295</td>
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</tr>
<tr>
<td>SUR 296</td>
<td>3</td>
</tr>
<tr>
<td>SUR 297</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credit Hours 16

CPR or BLS certificate must also be obtained prior to enrolling in the program; certification must be kept current throughout the program.

For program admission, student must be a certified Surgical Technologist or an RN with operating room experience OR consent of instructor.

Surgical Technology

Surgical technologists are allied health professionals who are an integral part of the team of medical practitioners providing surgical care to patients in a variety of settings such as medical offices, out-patient clinics, and the operating room.

The surgical technologist works under medical supervision to facilitate the safe and effective conduct of invasive surgical procedures. This individual works under the supervision of a surgeon to ensure that the operating room environment is safe, that equipment functions properly, and that the operative procedure is conducted under conditions that maximize patient safety.

A surgical technologist possesses expertise in the theory and application of sterile and aseptic techniques and combines the knowledge of human anatomy, surgical procedures, and implementation tools and technologies to facilitate a physician’s performance of invasive therapeutic and diagnostic procedures.

This program provides clinical experience built upon classroom instruction in the basic sciences, patient care, aseptic techniques and surgical procedures. Each college admits students for their Surgical Technology program, respectively, based on the selective-admission criteria of the institution. 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), 3 West Dry Creek Circle, Suite 100; Littleton, CO 80120; Phone: (800) 707 0057; www.nbstsa.org.

The following programs hold accreditation from the Commission on Accreditation of Allied Health Education Programs (CAAHEP) 25400 US Highway 19 N, Suite 158, Clearwater Florida 33763; (727) 210 2350; www.caahep.org who accredits programs upon the recommendation of the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA), 6 West Dry Creek Circle, Suite 110; Littleton, CO 80120; Phone: (303) 694 9262; www.arcst.org; Ashland Community and Technical College Bluegrass Community and Technical College, Hazard Community and Technical College, Jefferson Community and Technical College, Madisonville Community College, Owensboro Community and Technical College, Somerset Community College, Southcentral Kentucky Community and Technical College, Southeast Kentucky Community and Technical College, and West Kentucky Community and Technical College.

**Associate in Applied Science**

**Surgical Technology - 5109097019**

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

<table>
<thead>
<tr>
<th>General Education:</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 137 Human Anatomy &amp; Physiology I</td>
</tr>
<tr>
<td>BIO 139 Human Anatomy &amp; Physiology II</td>
</tr>
<tr>
<td>ENG 101 Writing I</td>
</tr>
<tr>
<td>Quantitative Reasoning Course: MAT 110 or Higher</td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
</tr>
<tr>
<td>Heritage/Humanities</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
</tr>
<tr>
<td>20</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Technical Courses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital Literacy</td>
</tr>
<tr>
<td>CLA 131 Medical Terminology from Greek &amp; Latin OR</td>
</tr>
<tr>
<td>AHS 115 Medical Terminology OR</td>
</tr>
<tr>
<td>MIT 103 Medical Office Terminology</td>
</tr>
<tr>
<td>SUR 100 Surgical Technology Fundamentals/Theory OR</td>
</tr>
<tr>
<td>SUR 109 Introduction to Surgical Technology AND</td>
</tr>
<tr>
<td>SUR 110 Surgical Technology Fundamentals</td>
</tr>
<tr>
<td>BIO 225 Medical Microbiology OR</td>
</tr>
<tr>
<td>BIO 226 Principles of Microbiology OR</td>
</tr>
<tr>
<td>BIO 118 Microbes and Society</td>
</tr>
<tr>
<td>SUR 102 Surgical Technology Fundamentals Lab</td>
</tr>
<tr>
<td>SUR 202 Surgical Technology Advanced Theory</td>
</tr>
<tr>
<td><strong>A total of 10 credit hours must be completed from the following practicum courses:</strong></td>
</tr>
<tr>
<td>SUR 125 Surgical Technology Skills Practicum I</td>
</tr>
<tr>
<td>SUR 201 Surgical Technology Skills Practicum II</td>
</tr>
<tr>
<td>SUR 275 Surgical Technology Advanced Clinical Practicum</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
</tr>
<tr>
<td>42-46</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Elective(s):</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUR 270 Pathophysiology for Surgical Technology OR</td>
</tr>
<tr>
<td>MAI 200 Pathophysiology for Medical Assistants</td>
</tr>
<tr>
<td>BAS 120 Personal Finance</td>
</tr>
<tr>
<td>MNA 100 Medicaid Nurse Aide OR</td>
</tr>
<tr>
<td>NAA 100 Nursing Assistant Skills I</td>
</tr>
<tr>
<td><strong>Note:</strong></td>
</tr>
<tr>
<td>CPR certificate must be obtained prior to enrolling in the first Surgical Technology course and certification must be kept current throughout the Program. Digital literacy must be demonstrated either by competency exam or by completing a digital literacy course. Students successfully completing SUR 109 and SUR 110 are not required to take a microbiology course for the diploma option.</td>
</tr>
</tbody>
</table>

**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)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>3</td>
</tr>
<tr>
<td>MAT 116</td>
<td>3</td>
</tr>
<tr>
<td>SMT 110</td>
<td>3</td>
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<tr>
<td>SMT 130</td>
<td>3</td>
</tr>
<tr>
<td>SMT 160</td>
<td>3</td>
</tr>
<tr>
<td>SMT 210</td>
<td>3</td>
</tr>
<tr>
<td>SMT 220</td>
<td>3</td>
</tr>
<tr>
<td>SMT 230</td>
<td>3</td>
</tr>
<tr>
<td>SMT 250</td>
<td>3</td>
</tr>
<tr>
<td>SMT 270</td>
<td>3</td>
</tr>
<tr>
<td>SMT 290</td>
<td>3</td>
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<tr>
<td>Technical Electives Approved by Program Coordinator</td>
<td>12</td>
</tr>
<tr>
<td>Subtotal</td>
<td>45</td>
</tr>
</tbody>
</table>

**Required Technical Courses**

- Computer/Digital Literacy ......................................... 3
- Basic Public Speaking ............................................. 3
- Principles of Surveying ........................................... 3
- Land Surveying Graphics ......................................... 3
- Construction Surveying .......................................... 3
- Advanced Surveying Measurement ................................. 3
- Surveying Lab .................................................... 3
- Land Boundary Location ........................................... 3
- Technical Electives Approved by Program Coordinator ....... 12

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMT 210</td>
<td>3</td>
</tr>
<tr>
<td>SMT 220</td>
<td>3</td>
</tr>
<tr>
<td>SMT 230</td>
<td>3</td>
</tr>
</tbody>
</table>
| Technical Electives Approved by Program Coordinator ..... 9
| Subtotal | 33      |

**Required General Education**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>3</td>
</tr>
<tr>
<td>MAT 116</td>
<td>3</td>
</tr>
<tr>
<td>SMT 110</td>
<td>3</td>
</tr>
<tr>
<td>SMT 130</td>
<td>3</td>
</tr>
<tr>
<td>SMT 160</td>
<td>3</td>
</tr>
<tr>
<td>SMT 210</td>
<td>3</td>
</tr>
<tr>
<td>SMT 220</td>
<td>3</td>
</tr>
<tr>
<td>SMT 230</td>
<td>3</td>
</tr>
</tbody>
</table>
| Technical Electives Approved by Program Coordinator .... 9
| Subtotal | 39      |

**Diploma**

**Surveying Technician III - 1511024029**

*(Offered at)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WLD 152</td>
<td>5</td>
</tr>
<tr>
<td>DFT 102</td>
<td>4</td>
</tr>
<tr>
<td>ELT 110</td>
<td>5</td>
</tr>
<tr>
<td>CAR 126/127</td>
<td>3/1</td>
</tr>
<tr>
<td>THA 192</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
</tr>
</tbody>
</table>

### Teaching English to Speakers of Other Languages (TESOL)

This certificate program prepares individuals for entry and advancement within the profession of TESOL as English language teachers. Through nineteen (19) credit hours, students will be introduced to various concepts of what teaching English to speakers of other languages entails. Courses within the program cover how to incorporate dynamic and interactive teaching methods into the lesson plans, how adults acquire a second language, the characteristics of English language learners and factors impacting learning outcomes and teaching best practices with the inclusion of classroom observations and hands-on experience. Students who successfully complete this certification program are eligible and certified to domestically teach English to speakers of other languages at community organizations, such as Kentucky Refugee Ministries, or internationally teach English to speakers of other languages via programs, such as TaLK.

**Certificate**

**TESOL - 1315013029**

*(Offered at JFC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 160</td>
<td>3</td>
</tr>
<tr>
<td>COM 254</td>
<td>3</td>
</tr>
<tr>
<td>TES 100</td>
<td>3</td>
</tr>
<tr>
<td>TES 101</td>
<td>3</td>
</tr>
<tr>
<td>TES 102</td>
<td>3</td>
</tr>
<tr>
<td>TES 103</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
</tr>
</tbody>
</table>

### Technical Theatre

The Technical Theatre Certificate will prepare students for an entry level position as a theatre technician and/or advanced technical theatre studies.

**Certificates**

**Technical Theatre - 5005013019**

*(Offered at OWC)*

**General Education Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>THA 101</td>
<td>3</td>
</tr>
<tr>
<td>COM 181</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
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</tr>
<tr>
<td>ENG 101</td>
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<tr>
<td>Total</td>
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</table>

**Technical Core**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>THA 250</td>
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<tr>
<td>THA 260</td>
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<td>THA 141</td>
<td>3</td>
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<tr>
<td>Total</td>
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</tr>
</tbody>
</table>

**Technical Electives (Select one of the following)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 113</td>
<td>3</td>
</tr>
<tr>
<td>ELT 110</td>
<td>5</td>
</tr>
<tr>
<td>DFT 102</td>
<td>4</td>
</tr>
<tr>
<td>WLD 152</td>
<td>5</td>
</tr>
<tr>
<td>CAR 126/127</td>
<td>3/1</td>
</tr>
<tr>
<td>THA 192</td>
<td>1</td>
</tr>
<tr>
<td>Other courses as approved by the program coordinator</td>
<td>19-24</td>
</tr>
</tbody>
</table>
### Telehealth Technician Associate

Telehealth is the provision of health care over a distance. This occurs through live interactive (synchronous) and store and forward (asynchronous) telemedicine using high-speed communication links, videoconference equipment and other communication devices, medical peripheral devices such as electronic stethoscopes to facilitate secure connectivity between patients and providers.

**Certificate**

#### Telehealth Technician Associate - 5107073069

(Offered at HZC, SEC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HST 102</td>
<td>Health Care Delivery and Management</td>
<td>3</td>
</tr>
<tr>
<td>HST 103</td>
<td>Health Care Communications</td>
<td>2</td>
</tr>
<tr>
<td>HST 104</td>
<td>Health Care Basic Skills with Clinical</td>
<td>3.5</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>TEL 200</td>
<td>Telehealth Patient Care</td>
<td>4.5</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

### Truck Driver Training

Prepares students to drive tractor trailer trucks, apply their knowledge of commercial driving regulations, prepare receipts for loads, maintain truck logs according to state and federal regulations, load and unload trucks, inspect trucks and their equipment. The Transportation Specialist certificate will also include the operation of basic heavy equipment in addition to the routine and minor maintenance and repairs on diesel engines.

**Certificates**

#### Tractor Trailer, CDLA I - 4902053010

(Offered at ASC, BSC, ELC, GTW, HPC, HZC, MDC, SMC, SKY, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRU 100</td>
<td>Truck Driving</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>6</strong></td>
</tr>
</tbody>
</table>

#### Tractor Trailer, CDLA II - 4902053029

(Offered at JFC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TNT 110</td>
<td>Basic Operations</td>
<td>3</td>
</tr>
<tr>
<td>TNT 120</td>
<td>Safe Operating Practices</td>
<td>3</td>
</tr>
<tr>
<td>TNT 210</td>
<td>Advanced Operating Practices</td>
<td>1</td>
</tr>
<tr>
<td>TNT 220</td>
<td>Vehicle Systems and Reporting Malfunction</td>
<td>3</td>
</tr>
<tr>
<td>TNT 250</td>
<td>Internship</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

#### Tractor Trailer, CDLA III - 4902053039

(Offered at BSC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRK 110</td>
<td>Driver Preparation</td>
<td>3</td>
</tr>
<tr>
<td>TRK 120</td>
<td>Trucking Safety</td>
<td>3</td>
</tr>
<tr>
<td>TRK 130</td>
<td>Instrumentation</td>
<td>3</td>
</tr>
<tr>
<td>TRK 140</td>
<td>Systems Check</td>
<td>1</td>
</tr>
<tr>
<td>TRK 150</td>
<td>CDL Training</td>
<td>3</td>
</tr>
<tr>
<td>TRK 160</td>
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### Unmanned Systems Technology

The rapidly growing field of Unmanned Systems Technology (UST) enables students to gain knowledge and skills as an advanced drone operator, first responder specialist, unmanned systems technician, or GIS/unmanned Systems Specialist. This program prepares students for entry and advancement within the unmanned systems technology workforce (aerial, land, and water vehicles/robotics) field and to pilot unmanned aircrafts for private and commercial industries. The program also requires students to make reasonable predictions of how the current unmanned systems technology will integrate into existing careers.

**Associate in Applied Science**

#### Unmanned Systems Technology - 4706097019

(Offered at HZC)

**General Education Core:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tr>
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<tr>
<td>COM 181</td>
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<td>MAT 116</td>
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**Technical Core:**

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<tr>
<td>DPT 100</td>
<td>Introduction to 3D Print Technology OR</td>
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</tr>
<tr>
<td>CAD 100</td>
<td>Introduction to Computer Aided Design</td>
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<td>BAS 282</td>
<td>Principles of Marketing</td>
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<tr>
<td>BAS 267</td>
<td>Introduction to Business Law</td>
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<td>UST 100</td>
<td>Intro to Unmanned Systems Technology</td>
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#### Advanced Drone Operator Track - 4706097001

(Offered at HZC)

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<td>Introduction to Digital Maps</td>
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<td>Crew Resource Management</td>
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<td>UST 290</td>
<td>UST Flight Mastery</td>
<td>2</td>
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<td>UST 295</td>
<td>UST Learning Experience (Internship, etc.)</td>
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#### First Responder Specialist Track - 4706097002

(Offered at HZC)

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**Note:** Courses marked with (Offered at ASC, BSC, ELC, GTW, HPC, HZC, MDC, SMC, SKY, WKC) or (Offered at JFC) indicate the specific location where the course is available.
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<td>Unmanned Systems Safety and Regulations</td>
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**Drone Operator Specialist - 4706093039**

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**GIS/Unmanned Systems Specialist- 4706093059**

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**Remote Drone Pilot - 4706093029**

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**Visual Observer- 4706093079**

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**Certificates**

**Basic Drone Operator - 4706093069**

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**Drone Operator Specialist - 4706093039**

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**First Responder Specialist - 4706093049**

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<td>DPT 100</td>
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<td>CIT 125</td>
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<td>UST 220</td>
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**Other General Education courses that can be taken as UST electives:**

<table>
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<th>Course Title</th>
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<tr>
<td>ENG 102</td>
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<tr>
<td>MAT 155</td>
<td>Trigonometry</td>
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<tr>
<td>PHY 151</td>
<td>Introductory Physics I</td>
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<tr>
<td>STA 200</td>
<td>Stats: Force in Human Judgement</td>
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<tr>
<td>STA 220</td>
<td>Statistics</td>
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*Any course from the UST electives list can be used as an elective if not already required in the certificate.

Other courses may be approved as UST Electives as approved by the program coordinator.
Veterinary Technology

The Veterinary Technology program will provide students with the skills and knowledge needed to work as a professional veterinarian. Areas of study include the nine domains included in the CVTEA Essential and Recommended Skills: (1) Office and Hospital Procedures, Client Relations, and Communication; (2) Pharmacy and Pharmacology; (3) Nursing; (4) Anesthesia; (5) Surgical Nursing; (6) Laboratory Procedures; (7) Imaging; (8) Laboratory Animal Procedures; and (9) Avian, Exotic, & Small Mammals Procedures. The Veterinary Technology program will provide students with “real world” clinical and lab experiences to develop the skills needed to become a valued professional in the field.

Note: Hours Exception (69-72 for the A.A.S.) approved by the KCTCS Board of Regents in June 2013.

Associate in Applied Science

Veterinary Technology - 0183017010
(Offered at OWC)

General Education

ENG 101 Writing I .......................................................... 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

Heritage/Humanities .................................................... 3

Social/Behavioral Sciences .......................................... 3

Required Technical Courses

COM 252 Introduction to Interpersonal Communication .......... 3

VET 112 Veterinary Microbiology ....................................... 4
VET 116 Animal Anatomy and Physiology ............................ 4
VET 120 Clinical Practicum I ............................................. 2
VET 135 Clinical Procedures I .......................................... 5
VET 210 Pharmacology ..................................................... 3
VET 220 Parasitology and Clinical Lab Techniques .................. 5
VET 235 Clinical Procedures II ......................................... 4
VET 245 Clinical Procedures III ......................................... 5
VET 250 Clinical Practicum II .......................................... 5

Subtotal .................................................. 51

AAS Total .................................................. 70

Visual Communication

Four programs are offered under the broader heading of Visual Communication. They are Communication Arts Technology, Design & Technology, Multimedia, and Printing.

Visual Communication: Communication Arts Technology

The Communication Arts Technology program provides students with the knowledge, skills, and a portfolio needed for entry-level employment as a graphic designer, commercial photographer, web designer, videographer, or video editor. These fields involve the use of specialized software combined with creativity, design, and problem solving skills to communicate an effective visual message for TV, web and interactive media, product packaging, and advertising layout. This program focuses on developing the creativity and software skills necessary to be competitive in these fields. Many courses include hands-on lab hours with one-on-one assistance from the instructors. The program is completed with an internship in the student’s specialty field that allows the student to transfer academic skills to a professional environment. Students and graduates of the Communication Arts Technology program have won numerous design, photography, and video awards in the creative industry.

All technical courses must be completed with “C” (2.0) or greater to advance in Visual Communication programs.

Associate in Applied Science

Communication Arts Technology - 5004067019
(Offered at JFC)

General Education Requirements

ENG 101 Writing I .......................................................... 3
MAT 110 Applied Mathematics OR ...................................... 3
ART 106 Renaissance Through Modern Art History ................ 3
Natural Sciences ....................................................... 3
Social/Behavioral Sciences ............................................ 3

Total General Education Requirements .......................... 15

Core Communication Art Courses

VCC 150 Mac Basics ...................................................... 3
ART 110 Drawing I ....................................................... 3
VCC 106 Creative Typographical Design ............................ 3
VCA 173 Basic Advertising Design ................................... 3
VCA 174 Publication Design ........................................... 3
VCA 163 Basic Photography ............................................ 3
VCA 164 Portrait Photography ........................................ 3
VCA 132 Illustration for Advertising ................................ 3
VCC 166 Photoshop Basics ............................................ 3
Visual Communication:
Design & Technology

Design & Technology emphasizes creative problem solving and insight into the mix of art, design and technical competence. This program includes a Graphic Design track, a Mixed Media Design track, and a Production Design track, with a core of courses common to all. The core includes general education components essential to a collegiate education and technical courses giving students an introduction to design concepts and computer graphics. In addition to core courses, students will take specialty courses for their selected track.

The Graphic Design track emphasizes several aspects of graphic design and focuses on the development of creative skills and technical skills to design logos, advertising, packaging, and a wide variety of publication materials.

The Mixed Media Design track provides students with a mix of courses within the visual communication program or approved electives that serve the interests and skills of the student. These courses may include web design, animation, printing & graphics production, photography, and video production.

The Production Design track provides students training in the operations of various printing and graphics production equipment, along with finishing and bindery equipment. Students will learn skills to design and produce a wide variety of printed materials, promotional items, and signage; in addition to proper prepress and file preparation procedures.

Students also have a variety of certificates they may earn in the process of completing their AAS degree. These certificates include: Design Assistant, Digital Photography, Graphic Design, Production Design, Mixed Media Design, Screen Printing, Digital Wraps and Entrepreneurial Certificate in Visual Communication.

Prospective employment opportunities are in communication and advertising agencies, news media, printing and signage companies, public relations departments, and other creative services departments and businesses, including web design and video production studios. Students also have many options if they desire to become an entrepreneur in the visual communication field.

All technical courses must be completed with a 'C' (2.0) or greater to advance in all Visual Communication programs.

Certificates

Digital Media - 5004063049

Digital Video - 5004063059

(Offers at JFC)

General Education Requirements

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<tr>
<th>Course</th>
<th>Title</th>
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<td>VCC 106</td>
<td>Typography</td>
<td>3</td>
</tr>
<tr>
<td>VCC 110</td>
<td>Design Concepts</td>
<td>3</td>
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<td>VCC 125</td>
<td>Computer Graphics I</td>
<td>3</td>
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<tr>
<td>VCC 166</td>
<td>Photoshop Basics</td>
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<td>VCC 200</td>
<td>Illustrator Basics</td>
<td>3</td>
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<tr>
<td>VCC 220</td>
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</tr>
<tr>
<td>VCC 297</td>
<td>Internship</td>
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</table>

Subtotal: 30

**Graphic Design Track – 500409701**
*(Offered at BSC)*

<table>
<thead>
<tr>
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<tr>
<td>VCC 235</td>
<td>Graphic Design I</td>
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<td>VCC 245</td>
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<td>VCC 255</td>
<td>Emerging Media Design</td>
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<td>VCC 265</td>
<td>Computer Graphics III</td>
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<td>VCC 275</td>
<td>Digital Production OR</td>
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Subtotal: 18

Total Credit Hours for Graphic Design Track: 63

**Mixed Media Design Track – 500409705**
*(Offered at BSC)*

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
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Subtotal: 18

Total Credit Hours for Mixed Media Design Track: 63

**Production Design Track – 500409703**
*(Offered at BSC)*

<table>
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<tr>
<th>Course Code</th>
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<tr>
<td>VCC 214</td>
<td>Production Design I</td>
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<td>VCC 216</td>
<td>Production Design II OR</td>
<td>3</td>
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<tr>
<td>VCP 250</td>
<td>Screen Printing</td>
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<tr>
<td>VCC 218</td>
<td>Production Design III</td>
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<tr>
<td>VCC 275</td>
<td>Digital Production IV</td>
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<tr>
<td>VCC 285</td>
<td>Production Design IV</td>
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<td>Approved Technical Electives*</td>
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Subtotal: 18

Total Credits for Production Design Track: 63

**Diplomas**

**Graphic Design - 5004094059**
*(Offered at BSC)*

**Certificates**

Entrepreneurial Certificate in Visual Communication - 5004093149
*(Offered at WKC)*

<table>
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<tr>
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<tr>
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<tr>
<td>BAS 170</td>
<td>Entrepreneurship</td>
<td>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>VCC 110</td>
<td>Design Concepts</td>
<td>3</td>
</tr>
<tr>
<td>VCC 125</td>
<td>Computer Graphics I</td>
<td>3</td>
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<td>VCC 255</td>
<td>Emerging Media Design</td>
<td>3</td>
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<tr>
<td>VCM 220</td>
<td>Webpage Design</td>
<td>3</td>
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<tr>
<td>VCC 115</td>
<td>Strategic Concepts</td>
<td>3</td>
</tr>
<tr>
<td>VCC 235</td>
<td>Graphic Design I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Approved Technical Electives*</td>
<td>(3)</td>
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</tbody>
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Total Credits for Graphic Design Certificate: 30

Design Assistant – 5004093019
*(Offered at BSC, HSC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<td>VCC 106</td>
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<td>VCA 108</td>
<td>Digital Color Theory</td>
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<tr>
<td>VCC 110</td>
<td>Design Concepts</td>
<td>3</td>
</tr>
<tr>
<td>VCC 125</td>
<td>Computer Graphics I</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits for Design Assistant Certificate: 15
**Digital Photography – 5004093069**
(Offered at BSC, HZC, SMC)

- VCA 120 Digital Photography I ................................................... 3
- VCC 135 Photo Editing for Photography OR ........................................ 3
- VCA 108 Digital Color Theory ...................................................... 3
- VCC 166 Photoshop Basics ........................................................... (3)
- VCA 131 Digital Photography II OR .............................................. 3
- VCC 266 Advanced Photoshop ..................................................... (3)

Total Credits for Digital Photography Certificate 12

**Digital Wraps - 5004093139**
(Offered at WKC)

- VCC 110 Design Concepts .......................................................... 3
- VCC 125 Computer Graphics I ...................................................... 3
- VCC 166 Photoshop Basics ........................................................... 3
- VCC 200 Illustrator Basics ............................................................ 3
- VCC 214 Production Design I ........................................................... 3
- VCC 285 Graphic Design III .......................................................... 3

Total Credits for Digital Wraps Certificate 18

**Graphic Design – 5004093119**
(Offered at WKC)

- VCA 108 Digital Color Theory ...................................................... 3
- VCC 100 Introduction to Visual Communication .................................. 3
- VCC 106 Typography ................................................................. 3
- VCC 110 Design Concepts ........................................................... 3
- VCC 125 Computer Graphics I ...................................................... 3
- VCC 235 Graphic Design I ........................................................... 3
- VCC 245 Graphic Design II ............................................................ 3
- VCC 255 Emerging Media Design .................................................. 3
- VCC 265 Graphic Design III .......................................................... 3

Total Credits for Graphic Design Certificate 28

**Mixed Media Design – 5004093099**
(Offered at BSC, HZC)

Select one course from each of the following Core areas:

- Design Concepts ................................................................. 3
- Computer Graphics I ............................................................... 3

Total Credits for Mixed Media Design Certificate 18

**Screen Printing – 5004093129**
(Offered at WKC)

- VCC 110 Design Concepts ........................................................... 3
- VCC 125 Computer Graphics I ...................................................... 3
- VCC 166 Photoshop Basics ........................................................... 3
- VCC 216 Production Design II OR .............................................. 3
- VCP 250 Screen Printing ............................................................. (3)

Total Credits for Graphic Design Certificate 12

**Production Design Assistant – 5004093109**
(Offered at BSC, WKC)

- VCC 110 Design Concepts ........................................................... 3
- VCC 125 Computer Graphics I ...................................................... 3
- VCC 166 Photoshop Basics ........................................................... 3
- VCC 200 Illustrator Basics ............................................................ 3
- VCC 214 Production Design I ........................................................... 3

Total Credits for Production Design Assistant Certificate 15

*Approved Technical Electives*

- VCA 102 Fundamentals of Drawing .................................................. 3
- VCA 105 Drawing Concepts ............................................................ 3
- VCA 106 Creative Typographical Design ......................................... 3
- VCA 108 Digital Color Theory ...................................................... 3
- VCA 120 Digital Photography I .................................................... 3
- VCA 131 Digital Photography II .................................................... 3
- VCA 132 Illustration for Advertising ............................................... 3
- VCA 151 Digital Filmmaking I ....................................................... 3
- VCA 152 Digital Filmmaking II ...................................................... 3
- VCA 160 Commercial Photography ................................................... 3
- VCA 161 Commercial Photography ................................................... 3
- VCA 170 Advertising Design .......................................................... 3
- VCA 171 Advertising Design .......................................................... 3
- VCA 240 Package Design .............................................................. 3
- VCA 250 Advertising Design .......................................................... 3
- VCA 251 Digital Filmmaking III ...................................................... 3
- VCA 252 Digital Filmmaking IV ...................................................... 3
- VCA 255 Corporate Design ............................................................ 3
- VCA 260 Commercial Photography ................................................... 4
- VCA 261 Commercial Photography ................................................... 4
- VCA 270 Advertising Design .......................................................... 4
- VCA 271 Advertising Design .......................................................... 4
- VCA 280 Professional Portfolio Development ........................................ 3
- VCA 287 Introduction to Visual Communication .................................. 3
- VCC 105 Fundamentals of Typography ............................................ 3
- VCC 106 Typography ................................................................. 3
- VCC 110 Design Concepts ........................................................... 3
- VCC 115 Strategic Concepts .......................................................... 3
- VCC 125 Computer Graphics .......................................................... 3
- VCC 135 Photo Editing for Photographers ........................................ 3
- VCC 150 Mac Basics ................................................................. 3
- VCC 166 Photoshop Basics ............................................................ 3
- VCC 200 Illustrator Basics ............................................................ 3
- VCC 210 Advanced Computer Illustration ......................................... 3
- VCC 213 Vinyl Graphics and Applications ........................................ 3
- VCC 214 Production Design I ........................................................... 3
- VCC 216 Production Design II ........................................................... 3
- VCC 218 Production Design III ........................................................... 3
- VCC 220 InDesign Basics .............................................................. 3
- VCC 226 Advanced InDesign .......................................................... 3
- VCC 235 Graphic Design I ............................................................. 3
- VCC 245 Graphic Design II ............................................................ 3
- VCC 255 Emerging Media Design .................................................. 3
- VCC 260 Computer Graphics .......................................................... 3
- VCC 265 Graphic Design .............................................................. 3
- VCC 266 Advanced Photoshop ........................................................... 3
- VCC 270 Acrobat Basics ............................................................... 3
- VCC 275 Digital Production ............................................................ 3
- VCC 285 Production Design IV ........................................................... 3
- VCC 297 Internship ................................................................. 3
- VCC 298 Practicum ................................................................. 3
- VCM 100 Fundamentals of Animation ............................................... 3
- VCM 115 2-D Animation ............................................................... 3
- VCM 125 Foundations of Video Production ........................................ 3
- VCM 140 Digital Video ............................................................... 3
- VCM 150 Audio Production ............................................................. 3
- VCM 205 Introduction to HTML ........................................................... 3
- VCM 210 3-D Animation ............................................................... 3
- VCM 215 After Effects ................................................................. 3
- VCM 220 Web page Design ............................................................. 3
- VCM 225 Advanced 3-D Animation .................................................. 3
- VCM 230 Advanced Webpage Design ............................................... 3
- VCM 240 Advanced Digital Video ..................................................... 3
- VCP 250 Screen Printing .............................................................. 3
- VCP 255 Special Topics Lab ........................................................... 3
- VCP 285 Electronic Prepress ............................................................. 3
- COE 199 Cooperative Education ..................................................... 3
- ART 110 Drawing ................................................................. 3
- ART 112 2 Dimensional Design ........................................................... 3
- IMD 133 Beginning Web Design ...................................................... 3
- IMD 180 Intermediate Web Design .................................................. 3
- IMD 230 Advanced Web Design ..................................................... 3
- IMD 232 Web Design with Adobe Dreamweaver .................................. 3
- IMD 240 Multimedia Development for the Web .................................. 3
- IMD 250 Digital Video Editing I ...................................................... 3
- IMD 255 Digital Video Editing II ..................................................... 3
- IMD 258 Visual Effects for Video ..................................................... 3

**Approved for Digital Literacy**

+CORE courses
Visual Communication: Multimedia

The Visual Communication: Multimedia program provides students the necessary skills to prepare and produce a wide variety of multimedia presentations. This program includes tracks in Animation, Web Design, Digital Design, Video Production, and Multimedia. The core includes general education components essential to a collegiate education and technical courses giving students an introduction to typography, design concepts, color theory, and computer graphics. In addition to core courses, students will take specialty courses for their selected track.

Prospective employment opportunities are in advertising agencies, graphic design studios, news media, printing and signage companies, department stores, and other creative services departments and businesses, including web design and video production studios.

All technical courses must be completed with “C” (2.0) or greater to advance in all Visual Communication programs.

**Associate in Applied Science**

Multimedia - 1003047019
*(Offered at HZC, SMC, WKC)*

General Education Requirements:
- Quantitative Reasoning .......................................................... 3
- Natural Sciences .................................................................. 3
- Social/Behavioral Sciences .................................................. 3
- Heritage/Humanities .......................................................... 3

ENG 101 Writing I .................................................................. 3

Subtotal .............................................................................. 15

Required Technical Core
- VCC 100 Introduction to Visual Communication .................. 3
- VCC 106 Typography .............................................................. 3
- VCA 108 Color Theory ............................................................ 3
- VCC 110 Design Concepts .................................................... 3
- VCC 125 Computer Graphics I** ............................................. 3
- VCC 166 Photoshop Basics .................................................. 3
- VCC 200 Computer Illustration ............................................ 3
- VCC 220 InDesign Basics ...................................................... 3
- VCC 255 Emerging Media Design ......................................... 3
- VCA 280 Professional Portfolio Development ....................... 3
- VCC 297 Internship OR ........................................................ 3
- VCC 298 Practicum OR ........................................................ (3)
- COE 199 Cooperative Education ............................................ (3)

Subtotal .............................................................................. 33

**Animation Track - 100304701**
*(Offered at)*

VCM 115 2-D Animation ....................................................... 3
VCM 210 3-D Animation ........................................................ 3
VCM 215 After Effects ............................................................ 3
VCM 225 Advanced 3-D Animation ......................................... 3

*Approved Technical Electives ................................................ 3

Subtotal .............................................................................. 15

Total Credits for AAS: Multimedia - Animation Track ............. 63

**Digital Design Track - 100304703**
*(Offered at SMC, WKC)*

VCC 260 Computer Graphics II .............................................. 3

*Approved Technical Electives ................................................ 12

Subtotal .............................................................................. 15

Total Credits for AAS: Multimedia - Digital Design Track ........ 63

Multimedia Track – 100304706
*(Offered at HZC, WKC)*

VCM 140 Digital Video ........................................................... 3
VCM 220 Webpage Design ...................................................... 3

*Approved Technical Electives ................................................ 9

Subtotal .............................................................................. 15

Total Credits for AAS: Multimedia - Multimedia Track ............. 63

Video Production Track - 100304705
*(Offered at HZC, WKC)*

VCM 125 Foundations of Video Production .............................. 3
VCM 140 Digital Video ........................................................... 3
VCM 215 After Effects ............................................................ 3
VCM 240 Advanced Digital Video ............................................ 3

*Approved Technical Elective .................................................. 3

Subtotal .............................................................................. 15

Total Credits for AAS: Multimedia - Video Production Track .... 63

Web Design Track - 100304702
*(Offered at HZC, WKC)*

VCM 220 Webpage Design ...................................................... 3
VCM 230 Advanced Webpage Design ....................................... 3

*Approved Technical Electives ................................................ 9

Subtotal .............................................................................. 15

Total Credits for AAS: Multimedia - Web Design Track .......... 63

Diploma

Multimedia - 1003044019
*(Offered at HZC, SMC, WKC)*

General Education Requirements
- Written Communication OR .................................................. 3
- Oral Communications OR .................................................... (3)
- Humanities/Heritage ......................................................... (3)
- Quantitative Reasoning OR .................................................. 3
- Natural Sciences OR ............................................................ (3)
- Social/Behavioral Sciences ................................................ (3)

Subtotal .............................................................................. 6

Required Technical Core
- VCC 100 Introduction to Visual Communication .................. 3
- VCC 106 Typography .............................................................. 3
- VCA 108 Digital Color Theory .............................................. 3
- VCC 110 Design Concepts .................................................... 3
- VCC 125 Computer Graphics I** ............................................. 3
- VCC 166 Photoshop Basics .................................................. 3
- VCC 200 Illustrator Basics .................................................... 3
- VCC 220 InDesign Basics ...................................................... 3
- VCC 255 Emerging Media Design ......................................... 3
- VCA 280 Professional Portfolio Development ....................... 3
- VCC 297 Internship OR ........................................................ 3
- VCC 298 Practicum OR ........................................................ (3)
- COE 199 Cooperative Education ............................................ (3)

Subtotal .............................................................................. 33

**Animation Track - 100304403**
*(Offered at)*

VCM 115 2-D Animation ....................................................... 3
VCM 210 3-D Animation ........................................................ 3
VCM 215 After Effects ............................................................ 3
VCM 225 Advanced 3-D Animation ......................................... 3

*Approved Technical Elective .................................................. 3

Subtotal .............................................................................. 15

Total for Animation Track ..................................................... 54
Digital Design Track - 100304404
(Offered at SMC,WKC)

VCC 260 Computer Graphics II .............................................. 3
*Approved Technical Electives .......................................... 12
Subtotal ........................................................................... 15
Total for Digital Design ...................................................... 54

Multimedia Track - 100304401
(Offered at WKC)

VCM 140 Digital Video ......................................................... 3
VCM 220 Webpage Design .................................................... 3
*Approved Technical Elective ............................................. 9
Subtotal ........................................................................... 15
Total for Multimedia .......................................................... 54

Video Production Track - 100304406
(Offered at HZC,WKC)

VCM 125 Foundations of Video Production ................................ 3
VCM 140 Digital Video ......................................................... 3
VCM 215 After Effects ......................................................... 3
VCM 240 Advanced Digital Video ........................................... 3
*Approved Technical Elective ............................................. 9
Subtotal ........................................................................... 15
Total for Video Production .................................................... 54

Web Design Track - 100304402
(Offered at WKC)

VCM 220 Webpage Design .................................................... 3
VCM 230 Advanced Webpage Design .................................... 3
*Approved Technical Elective ............................................. 9
Subtotal ........................................................................... 15
Total for Web Design .......................................................... 54

Certificates

Animation - 100304309
(Offered at SMC)

VCC 100 Introduction to Visual Communication ...................... 3
VCC 106 Typography ............................................................ 3
VCA 108 Color Theory ......................................................... 3
VCC 110 Design Concepts .................................................... 3
VCC 125 Computer Graphics I** ............................................ 3
VCC 166 Photoshop Basics ................................................... 3
VCM 115 2-D Animation ....................................................... 3
VCM 210 3-D Animation ....................................................... 3
VCM 215 After Effects ......................................................... 3
*Approved Technical Elective ............................................. 3
Total for Animation .............................................................. 30

Audio Production – 1003043079
(Offered at HZC,WKC)

VCM 125 Foundations of Video Production ................................ 3
VCM 140 Digital Video ......................................................... 3
VCM 150 Audio Recording .................................................... 3
VCM 240 Advanced Digital Video ........................................... 3
*Approved Technical Electives ............................................. 6
Total for Audio Production ..................................................... 18

Digital Design - 1003043059
(Offered at SMC,WKC)

VCA 108 Color Theory ........................................................... 3
VCC 100 Introduction to Visual Communication ...................... 3
VCC 106 Typography ............................................................ 3
VCC 110 Design Concepts .................................................... 3
VCC 125 Computer Graphics I** ............................................ 3
VCC 166 Photoshop Basics ................................................... 3
VCC 220 Webpage Design .................................................... 3
*Approved Technical Elective ............................................. 9
Total for Digital Design ........................................................ 30

Multimedia - 1003043019
(Offered at HZC,WKC)

VCC 100 Introduction to Visual Communication ...................... 3
VCC 110 Design Concepts .................................................... 3
VCC 125 Computer Graphics I** ............................................ 3
VCC 255 Emerging Media Design ......................................... 3
VCM 140 Digital Video ......................................................... 3
VCM 215 After Effects ......................................................... 3
VCM 220 Webpage Design .................................................... 3
*Approved Technical Elective ............................................. 9
Total for Multimedia ........................................................... 30

Video Production - 1003043069
(Offered at HZC,WKC)

VCC 100 Introduction to Visual Communication ...................... 3
VCC 110 Design Concepts .................................................... 3
VCC 125 Computer Graphics I** ............................................ 3
VCM 140 Digital Video ......................................................... 3
VCM 215 After Effects ......................................................... 3
VCM 220 Webpage Design .................................................... 3
*Approved Technical Elective ............................................. 9
Total for Video Production ..................................................... 30

Web Design - 1003043039
(Offered at HZC,WKC)

VCA 102 Fundamentals of Drawing ......................................... 3
ART 112 2-Dimensional Design .............................................. 3
COE 199 Cooperative Education .......................................... 3
IMD 133 Beginning Web Design .......................................... 3
IMD 180 Intermediate Web Design ...................................... 3
IMD 230 Advanced Web Design .......................................... 3
IMD 232 Web Design with Adobe Dreamweaver ..................... 3
IMD 240 Multimedia Development for the Web .................... 3
IMD 250 Digital Video Editing I ............................................ 3
IMD 255 Digital Video Editing II .......................................... 3
IMD 256 Visual Effects for Video ......................................... 3
MUS 106 Music in Film ......................................................... 3
VCA 102 Fundamentals of Drawing ......................................... 3
VCA 105 Drawing Concepts .................................................. 3
VCA 106 Creative Typographical Design .................................. 3
VCA 108 Digital Color Theory + ............................................. 3
VCA 120 Digital Photography I ............................................. 3

*Approved Technical Electives

VCA 102 Fundamentals of Drawing ......................................... 3
ART 112 2-Dimensional Design .............................................. 3
COE 199 Cooperative Education .......................................... 3
IMD 133 Beginning Web Design .......................................... 3
IMD 180 Intermediate Web Design ...................................... 3
IMD 230 Advanced Web Design .......................................... 3
IMD 232 Web Design with Adobe Dreamweaver ..................... 3
IMD 240 Multimedia Development for the Web .................... 3
IMD 250 Digital Video Editing I ............................................ 3
IMD 255 Digital Video Editing II .......................................... 3
IMD 256 Visual Effects for Video ......................................... 3
MUS 106 Music in Film ......................................................... 3
VCA 102 Fundamentals of Drawing ......................................... 3
VCA 105 Drawing Concepts .................................................. 3
VCA 106 Creative Typographical Design .................................. 3
VCA 108 Digital Color Theory + ............................................. 3
VCA 120 Digital Photography I ............................................. 3
Approved for Digital Literacy **

Instructor Approved Electives ...................................... 9

MAT 110 Applied Mathematics OR ........................................... 3
Higher Level Quantitative Reasoning .................(3)
Natural Sciences .................................................. 3
Social/Behavioral Sciences ................................... 3
Heritage/Humanities ............................................. 3

ENG 101 Writing I .......................................................... 3

Subtotal 15

Required Core:

Digital Literacy .......................................................... 0-3

VCA 108 Digital Color Theory .............................................. 3
VCA 120 Digital Photography ............................................ 3
VCC 100 Introduction to Visual Communication .............................. 3
VCC 166 Photoshop Basics ................................................ 3
VCC 200 Computer Illustration ........................................... 3
VCC 220 InDesign Basics .................................................. 3
VCC 230 Advanced InDesign Basics ....................................... 3
VCC 266 Advanced Photoshop ........................................... 3
VCC 270 Acrobat Basics .................................................. 3
VCP 285 Electronic Prepress .............................................. 3
COE 199 Cooperative Education OR ...................................... 3
VCC 297 Internship OR ....................................................... (3)
VCC 298 Practicum ..........................................................(3)
Instructor Approved Electives ............................................ 9

Subtotal 45-48

Total for AAS Visual Communication:

Printing - Digital Production Artist 60-63

Diplomas

Digital Production Artist - 1003014019
(Offered at BSC, SMC)

General Education Requirements

Written Communication OR ............................................... 3
Oral Communications OR ............................................... 3
Humainties/Heritage ..................................................... 3
Quantitative Reasoning OR .............................................. 3
Natural Sciences .......................................................... 3
Social/Behavioral Sciences ............................................. 3

Subtotal 6

Technical or Support Courses

Digital Literacy .......................................................... 0-3

VCA 108 Digital Color Theory .............................................. 3
VCA 120 Digital Photography ............................................ 3
VCC 100 Introduction to Visual Communication .............................. 3
VCC 105 Fundamentals of Typography .................................... 3
VCC 166 Photoshop Basics ................................................ 3
VCC 200 Computer Illustration ........................................... 3
VCC 220 InDesign Basics .................................................. 3

Total 20
### Technical or Support Courses

- **VCC 230** Advanced InDesign ................................................. 3
- **VCC 266** Advanced Photoshop ............................................. 3
- **VCC 270** Acrobat Basics .................................................... 3
- **VCP 285** Electronic Prepress ................................................ 3
- **COE 199** Cooperative Education OR ...................................... 3
- **VCC 297** Internship OR ........................................................ (3)
- **VCC 298** Practicum ............................................................. (3)
- Approved Electives ............................................................... 6

**Total for Digital Production Artist Diploma** 48-51

### Certificates

**Digital Imaging Assistant - 1003013059**
*(Offered at BSC, SMC)*

- **Technical or Support Courses**
  - **VCC 166** Photoshop Basics .................................................. 3
  - **VCA 120** Digital Photography .................................................. 3
  - Approved Electives ............................................................... 6

**Total** 12

**Digital Production Assistant - 1003013019**
*(Offered at BSC, SMC, WKC)*

- **Technical or Support Courses**
  - **VCC 100** Introduction to Visual Communication ......................... 3
  - **VCC 105** Fundamentals of Typography and Design ....................... 3
  - **VCC 166** Photoshop Basics .................................................... 3
  - **VCC 220** InDesign Basics ...................................................... 3
  - Approved Electives ............................................................... 3

**Total** 15

### Welding Technology

The Welding Technology Program is dedicated to welding education, technology and student success. Students in this program will learn various welding techniques, careers and the skills needed to be successful in the Welding Technology field. Welding occupations are primarily concerned with joining, surfacing, or repairing structures or parts made of metal or other weldable materials. The skills and knowledge needed to determine the appropriate welding technique required for a specific project and to successfully perform that technique are gained through course work and practical experience. The program offers a wide range of credentials including the Associate in Applied Science Degree, Diploma, and eleven certificates in Welding Technology.

### Associate in Applied Science

**Welding Technology - 4805087019**
*(Offered at ASC, BLC, BSC, ELC, GTW, HPC, JFC, MDC, MYC, OWC, SEC, SKY, SMC)*

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<td>Writing I OR</td>
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<tr>
<td>MAT 110</td>
<td>Applied Mathematics OR</td>
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<tr>
<td>MAT 116</td>
<td>Technical Mathematics OR</td>
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<td>MAT 146</td>
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<td>MAT 150</td>
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**General Education Total Credits** 18-19

### Required

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**Technical Electives ............................................................... 3

**Total Credits** 48-55
**Technical Electives:**

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**Total Credits** 5

**ARC Welder - 4805083029**

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

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**Total Credits** 24-25

**AWS National Skills Standards Level I - 4805083089**

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

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**Gas Metal Arc Welder - 4805083149**

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

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<td>Gas Metal Arc-Welding (GMAW) Groove Lab</td>
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<td>Gas Metal Arc-Welding (GMAW) Pipe Lab A OR</td>
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<td>Oxy-Fuel Systems OR</td>
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<td>WLD 110</td>
<td>Cutting Process</td>
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**Total** 33-34

**Gas Tungsten Arc Welder - 4805083159**

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

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**Total** 15-18

**Gas Welder - 4805083039**

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

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**Total Credits** 4

**Pipeline Welder - 4805083109**

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

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<td>WLD 111</td>
<td>Cutting Processes Lab</td>
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**Recommended Electives:**

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<td>WLD 253</td>
<td>Pipe Fitting and Template Development Lab</td>
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**Total** 29-40
Production Line Welder - 4805083059
(Offered at ASC, BLC, BSC, ELG, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKD)

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 OR ............................................ 2
WLD 110 Cutting Processes ................................................... 2
WLD 111 Oxy-Fuel Systems Lab OR ......................................... 2
WLD 120 Shielded Metal Arc Welding (SMAW) .......................... 2
WLD 121 Shielded Metal Arc Welding (SMAW) Fillet Lab .......... 3

Total Credits 19-20

Shielded Metal Arc Welder - 4805083139
(Offered at BLC, BSC, ELG, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKD)

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 111 Oxy-Fuel Systems Lab OR .......................................... 2

Total Credits 17-18

Tack Welder - 4805083119
(Offered at ASC, BLC, BSC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKD)

WLD 170 Blueprint Reading for Welding ..................................... 2
WLD 171 Blueprint Reading for Welding Lab ............................... 3
WLD 151 Basic Welding A OR ................................................... 2
WLD 120 Shielded Metal Arc Welding (SMAW) AND ................. (2)
WLD 121 Shielded Metal Arc Welding (SMAW) Fillet Lab OR ....... (3)
WLD 130 Gas Tungsten Arc Welding (GTAW) AND .................... (2)
WLD 131 Gas Tungsten Arc Welding (GTAW) Fillet Lab OR ....... (3)
WLD 140 Gas Metal Arc Welding (GMAW) AND .......................... (2)
WLD 141 Gas Metal Arc Welding (GMAW) Fillet Lab OR .......... (3)
WLD 152 Basic Welding B ....................................................... (5)

Total Credits 7-10

Welder Helper - 4805083129
(Offered at ASC, BLC, BSC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKD)

WLD 151 Basic Welding A OR ................................................... 2
WLD 120 Shielded Metal Arc Welding (SMAW) AND ................. (2)
WLD 121 Shielded Metal Arc Welding (SMAW) Fillet Lab OR ....... (3)
WLD 130 Gas Tungsten Arc Welding (GTAW) AND .................... (2)
WLD 131 Gas Tungsten Arc Welding (GTAW) Fillet Lab OR ....... (3)
WLD 140 Gas Metal Arc Welding (GMAW) 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

Welding Automation - 4805083169
(Offered at HPC, OWC, SMC, WKD)

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 171 Blueprint Reading for Welding Lab ............................... 3
WLD 251 Welding Automation Lab ............................................. 1-6

Total Credits 14-19

Women's and Gender Studies

The Women’s and Gender Studies Certificate Program provides an interdisciplinary approach that engages students in exploring and understanding historical and contemporary social issues with a focus on gender. The courses will require students to read, write, and think critically about such issues as identity, sexuality, the media, family, violence, health care, employment/discrimination, political structures, the intersection of gender, race, and poverty and the representation and participation of women on the world stage in artistic and socio-political spheres.

Certificate

Women’s and Gender Studies – 0502073019
(Offered at JFC)

WGS 200 Introduction to Women’s and Gender Studies in the Social Sciences OR ......................................................... 3
WGS 201 Introduction to Women’s and Gender Studies in the Arts and Humanities .............................................. 3
HIS 266 History of American Women to 1920 OR ..................... (3)
HIS 267 History of American Women from 1920 OR ............... (3)
HIS 265 History of Women in America ..................................... 3
HIS 267 do not meet general education nor cultural studies requirements.
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)

ANT 160 Cultural Diversity in the Modern World ..................... 3
ANT 220 Introduction to Cultural Anthropology ...................... 3
BIO 120 Human Ecology ....................................................... 3
COM 299 Special Topics in Communication: Gender and Communication ........................................ 3
ENG 233 Literature and Identities: (Sexuality & Representation) .... 3
ENG 232 Literature and Place (Sub-topic required) ....................... 3
ENG 234 Introduction to Women’s Literature ............................... 3
FAM 253 Human Sexuality: Development, Behavior, and Attitudes .... 3
FLK 276 Introduction to Folk Studies ....................................... 3
FLK 280 Cultural Diversity in the United States .......................... 3
GEO 160 Lands and Peoples of the Non-Western World ............... 3
GEO 240 Geography and Gender ............................................. 3
HIS 265 History of Women in America ..................................... 3
HIS 266 History of American Women to 1920* ....................... 3
HIS 267* History of American Women from 1920* .................. 3
HLM 121 Peace Studies ........................................................ 3
PHI 130 Ethics .................................................................... 3
PHI 110 Medical Ethics ......................................................... 3
REL 101 Introduction to Religious Studies ................................. 3
SOC 235 Inequality in Society ............................................... 3
SWK 275 The Family .......................................................... 3
WGS 200* Introduction to Women’s and Gender Studies in the Social Sciences* (if not taken as core) .............. 3

Total Credits 12

Page 219
Workplace Safety Specialist

The Workplace Safety Specialist Certificate is designed to prepare and provide a well-rounded base of knowledge essential for success in carrying out effective safety programs for today’s workforce. Professionals who are seeking or are new to safety management occupations are introduced to health and safety regulating agencies, their rules and regulations, compliance standards as well as the personal and professional skills required to administer safety programs.

Certificate

Workplace Safety Specialist – 1507993010
(Offered at MYC, SEC)

<table>
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<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Communications</td>
<td>3</td>
</tr>
<tr>
<td>Digital Literacy</td>
<td>0-3</td>
</tr>
<tr>
<td>BAS 288 Personal and Organizational Leadership</td>
<td>3</td>
</tr>
<tr>
<td>HSM 100 Introduction to Homeland Security</td>
<td>3</td>
</tr>
<tr>
<td>AIS 140 Introduction to Public and Community Health</td>
<td>3</td>
</tr>
<tr>
<td>ISX 100 Industrial Safety</td>
<td>3</td>
</tr>
<tr>
<td>Total Credits</td>
<td>15-18</td>
</tr>
</tbody>
</table>

Associate in Fine Arts (A.F.A.) Curricula

Filmmaking and Cinematic Arts

The Associate in Fine Arts (AFA) in Filmmaking and Cinematic Arts degree program is designed for students who plan to transfer to a four-year institution to acquire a Bachelor of Fine Arts in (Digital) Cinematic Arts related fields. The embedded certificate programs are designed to accommodate non-degree seeking students who wish to increase their knowledge and skills for the workplace. The program includes standard, transferable general education requirements for students seeking a higher degree. Technical courses in film history, film production techniques, cinematography, digital media, and writing for film are required in the core. Courses are offered in areas such as screenwriting, digital media design, camera, audio, acting and editing. Students will focus on the application of skills in the production of several finished short films.

Due to the nature of filmmaking and 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. Areas of concentration emulate the different specializations within the industry. Specializations mirror certificates available. Upon completion, graduates will be prepared for careers in the growing film industry in Kentucky, transfer to a 4-year institution, and employment – worldwide – in this growing medium.

The Filmmaking: From Script to Screen certificate program will provide students with a hands-on, practical overview of the filmmaking process. In addition to a working knowledge of the elements of filmmaking, graduates will have a greater understanding of the collaborative process, creative problem solving, and critical thinking. Graduates will have an enhanced level of media literacy and deeper understanding of filmmaking as a communication strategy for dissemination of ideas. The curriculum supports the desire of the film industry for a stronger filmmaking workforce in Kentucky.

The Digital Editing for Film certificate program will provide students with a hands-on mastery of the post-production film process. Graduates will have a greater understanding of the post-production process from color grading, sound mixing, final edit, digital imaging and special effects. The curriculum supports the desire for a stronger post-production workforce in Kentucky.

The Core Filmmaking Skills certificate program will demonstrate a mastery of the filmmaking disciplines from production to post production. Students will learn a master level of various skills and learn where they best fit in the film industry, creating a stronger workforce for the growing film industry in Kentucky.

The Directing for Filmmaking certificate program will provide students hands on mastery of directing short films. This focuses on the acting and performance both in front of camera and learning the actor’s process.

This certificate will teach both camera and production skills, and also skills needed when working with actors.

Associate in Fine Arts

Filmmaking and Cinematic Arts – 5006027039
(Offered at BLC)

General Education Core Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101 Writing I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102 Writing II</td>
<td>3</td>
</tr>
<tr>
<td>Oral Communications</td>
<td>3</td>
</tr>
<tr>
<td>Heritage or Humanities</td>
<td>3</td>
</tr>
<tr>
<td>MAT 110 Applied Mathematics OR</td>
<td>3</td>
</tr>
<tr>
<td>MA 111 Contemporary Mathematics OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 146 Contemporary College Mathematics OR</td>
<td>3</td>
</tr>
<tr>
<td>Higher Quantitative Reasoning Course</td>
<td>3</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>3-4</td>
</tr>
<tr>
<td>Must include a laboratory experience for general education certification in the Natural Sciences category.</td>
<td></td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td>6</td>
</tr>
<tr>
<td>General Education Total Credits</td>
<td>24-25</td>
</tr>
</tbody>
</table>

Digital Literacy

Digital Literacy must be demonstrated either by competency exam or by completing an Approved digital literacy course.

Digital Literacy Total Credits 0-3

Filmmaking and Cinematic Arts Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLM 112 Filmmaking: Treatment to Short Screen Play</td>
<td>4</td>
</tr>
<tr>
<td>FLM 122 Filmmaking: Storyboard through Production</td>
<td>4</td>
</tr>
<tr>
<td>FLM 132 Filmmaking: Editing through Distribution</td>
<td>4</td>
</tr>
<tr>
<td>FLM 140 Filmmaking: Lab</td>
<td>2</td>
</tr>
<tr>
<td>FLM 260 Cinematography</td>
<td>3</td>
</tr>
<tr>
<td>FLM 190 Film Boot Camp* OR</td>
<td>3</td>
</tr>
<tr>
<td>FLM 191 Film Boot Camp (Short)</td>
<td>1</td>
</tr>
<tr>
<td>Filmmaking and Cinematic Arts Core Total Credits</td>
<td>18-20</td>
</tr>
</tbody>
</table>

Filmmaking and Cinematic Arts Concentration (choose ONE suggested concentration (18 hours) from list below)

Suggested Concentration: Digital Editing for Film

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLM 190 Film Boot Camp*</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 250 Digital Video Editing I</td>
<td>3</td>
</tr>
<tr>
<td>IMD 255 Digital Video Editing II</td>
<td>3</td>
</tr>
<tr>
<td>IMD 258 Visual Effects for Video</td>
<td>3</td>
</tr>
<tr>
<td>Concentration Total Credits</td>
<td>18</td>
</tr>
</tbody>
</table>
Suggested Concentration: Core Filmmaking Skills

FLM 162 Acting for the Camera  ............................................... 3
IMD 250 Digital Video Editing I ................................................... 3
FLM 261 Directing for Film .................................................... 3
FLM 291 Cinematic Arts Internship ........................................... 3
FLM 299 Special Topics in Film  ................................................ 3
FLM 162 Acting for the Camera OR .......................................... 3
THA 126 Acting I: Fundamentals of Acting .............................. 3

Concentration Total Credits  18

Suggested Concentration: Directing for Filmmaking

FLM 190 Film Boot Camp* ...................................................... 3
FLM 261 Directing for Film .................................................... 3
FLM 291 Cinematic Arts Internship ........................................... 3
THA 126 Acting I: Fundamentals of Acting .............................. 3
THA 226 Acting II: Scene Study (Realism) ................................. 3
THA 227 Acting III: Scene Study (Styles) ................................. 3

Concentration Total Credits  18

Suggested Concentration: General Concentration (choose 18 hours from elective courses below):

FLM 162 Acting for the Camera ............................................... 3
FLM 190 Film Boot Camp ...................................................... 3
FLM 210 Screenwriting .......................................................... 3
FLM 261 Directing for Film .................................................... 3
FLM 291 Cinematic Arts Internship ........................................... 3
FLM 299 Special Topics in Film  ................................................ 3
IMD 115 Introduction to Graphic Design ................................. 3
IMD 228 Advanced Photoshop ................................................ 3
IMD 240 Multimedia Development for the Web ...................... 3
IMD 250 Digital Video Editing I ............................................... 3
IMD 255 Digital Video Editing II .............................................. 3
IMD 258 Visual Effects for Video .............................................. 3
THA 126 Acting I: Fundamentals of Acting .............................. 3

Or other courses approved by Filmmaking and Cinematic Arts Program Coordinator ........................................ 3

Concentration Total Credits  18

AFA-Filmmaking and Cinematic Arts Total Credit Hours  60-66

*This course can be taken twice for credit. In order for it to count in the core and as an elective, students must pass the course twice for credit.

Certificates

Filmmaking – From Script to Screen – 5006023019

(Offered at BLC)

FLM 112 Filmmaking: Treatment to Storyboard  ......................... 4
FLM 122 Filmmaking: Storyboard through Production ................ 4
FLM 132 Filmmaking: Editing through Distribution .................... 4
FLM 140 Filmmaking: Lab ....................................................... 2
FLM 162 Acting for the Camera OR .......................................... 3
THA 126 Acting I: Fundamentals of Acting ................................ (3)

Total Hours  17

Digital Editing for Film – 5006023029

(Offered at BLC)

FLM 190 Film Boot Camp ...................................................... 3
FLM 291 Cinematic Arts Internship ........................................... 3
IMD 115 Introduction to Graphic Design ................................. 3
IMD 250 Digital Video Editing I ............................................... 3
IMD 255 Digital Video Editing II .............................................. 3
IMD 258 Visual Effects for Video .............................................. 3

Total Hours  18

Core Filmmaking Skills – 5006023039

(Offered at BLC)

FLM 190 Film Boot Camp ...................................................... 3
FLM 261 Directing for Film .................................................... 3
IMD 250 Digital Video Editing I ............................................... 3
FLM 291 Cinematic Arts Internship ........................................... 3
FLM 299 Special Topics in Film  ................................................ 3
FLM 162 Acting for the Camera OR .......................................... 3
THA 126 Acting I: Fundamentals of Acting .............................. (3)

Total Hours  18

Directing for Filmmaking – 5006023049

(Offered at BLC)

FLM 190 Film Boot Camp ...................................................... 3
FLM 261 Directing for Film .................................................... 3
FLM 291 Cinematic Arts Internship ........................................... 3
THA 126 Acting I: Fundamentals of Acting .............................. 3
THA 226 Acting II: Scene Study (Realism) ................................. 3
THA 227 Acting III: Scene Study (Styles) ................................. 3

Total Hours  18

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 digital literacy.

1 Courses chosen to satisfy General Education requirements must be selected from an approved list which may be found in the KCTCS catalog.
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.

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 - 5005017019

(Offered at BLC, OWC)

General Education Core Requirements  25

Writing/Accessing Information

ENG 101 Writing I ............................................................... 3
ENG 102 Writing I ............................................................... 3
MA 109 College Algebra OR ............................................... 3
MA 111 Contemporary Mathematics OR ................................. 3
MAT 150 College Algebra OR ............................................... 3

Heritage/Humanities

MA 110 College Studies I .......................................................... 3
MA 111 Contemporary Mathematics OR ................................. 3

Higher Level Quantitative Reasoning course  .......................... (3)

221
The Theatre Core (15-18) includes:

- THA 101 Introduction to Theatre .............................................. 3
- THA 126 Fundamentals of Acting ............................................ 3
- THA 226 Acting II: Scene Study (Realism) ................................. 3
- THA 227 Acting III: Scene Study (Styles) ................................. 3
- THA 260 Stagecraft ............................................................. 3

Other Courses approved by program coordinator

THA 150 Fundamentals of Production ........................................3

Analytical and creative problem-solving skills and experience in both traditional and nontraditional art areas. Classes will also encourage and a visual vocabulary for personal expression, while exploring both art electives. Students will focus on the development of artistic skills includes general education requirements, visual arts foundation courses related areas requiring pre-professional credentials. The program 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.

Theatre Core

Visual Art

Associate in Fine Arts

Visual Art - 5007027019
(Offered at OWC,WKC)

General Education Core Requirements

ENG 101 Writing I ................................................................. 3
ENG 102 Writing II ............................................................. 3
Oral Communications ......................................................... 3
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 Theatre Electives)

THA 127 Acting Techniques ................................................... 3
THA 150 Fundamentals of Production ........................................3
THA 200 Introduction to Dramatic Literature ......................... 3
THA 283 American Theatre ................................................... 3
FLM 112 Filmmaking: Treatment to Storyboarding .................. 4
FLM 122 Filmmaking: Storyboard through Production ............. 4
FLM 132 Filmmaking: Editing through Distribution .................. 4

(FLM courses are co-requisites)

MLIS 192 University Chorus .................................................. 1
ART 110 Drawing I ............................................................. 3
ENG 281 Introduction to Film ............................................... 3
ENG 282 International Film Studies ....................................... 3

Digital Video Editing Final Cut ............................................. 3

Other Courses approved by program coordinator

Summary

General Education Core Requirements 25–28

Theatre Core Requirements 15

Practicum Core 3

Concentration (Approved Theatre Electives) 18

Total 61–64

Degree requirements: completion of minimum 60 credit hours; minimum cumulative 2.0 GPA; minimum of 15 credit hours earned at the institution awarding the degree; cultural studies course; and demonstration of computer literacy.

1 Courses chosen to satisfy General Education requirements must be selected from an approved list which may be found in the KCTCS catalog.

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

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

The Associate in Fine Arts (AFA) in 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.
Course Titles
Course prefix/number arranged alphabetically. The course number will appear as ENG 101 on transcripts, student schedules and web-based documents.

Course Credit
Variable credit is shown as (1-3).

Unique course identification

ENG 101 (3)
Course ID: 000467

Course Description
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

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.

Courses may have one component or several - lecture, laboratory, clinical, etc.

Pre-requisite – course which must be satisfactorily completed before enrolling in course
— (example: ACC 201 is a pre-requisite for ACC 202)

Co-requisite – course which must be taken at the same time as another course
— (example: ACR 101 is a co-requisite for ACR 100)

Attributes: Indicates course attribute and general education tag of the course, if applicable.
ACC Accounting

ACC 201(3)  Course ID:000927
Financial Accounting
Pre-requisite: Quantitative Reasoning College-Readiness or Consent of the Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

ACC 202(3)  Course ID:000001
Managerial Accounting
An introduction to the use of accounting data within an organization to analyze and solve problems and to make planning and control decisions. Pre-requisite: ACC 201 or ACT 101 and ACT 102. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

ACC 2011(1)  Course ID:005946
Financial Accounting-Accounting as an Information System
Pre-requisite: Sophomore Standing (30 credit hours) or Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

ACC 2012(1)  Course ID:005947
Financial Accounting-Accounting for Merchandising Businesses
Pre-requisite: Sophomore Standing (30 credit hours) or Consent of Instructor.ACC 2011 or equivalent. Lecture: 1 credit (15 contact hours).
Components: Lecture

ACC 2013(1)  Course ID:005948
Financial Accounting-Long Term Assets and Long Term Financing Activities
Pre-requisite: Sophomore Standing (30 credit hours) or Consent of Instructor ACC 2011 and ACC 2012 or equivalent. Lecture: 1 credit (15 contact hours).
Components: Lecture

ACC 2021(1)  Course ID:005949
Cost Terms Concepts, and Classifications
Pre-requisite: ACH 100 or equivalent. Lecture: 1 credit (15 contact hours).
Components: Lecture

ACC 2022(1)  Course ID:005950
Planning and Control
Pre-requisite: ACC 2022. Lecture: 1 credit (15 contact hours).
Components: Lecture

ACC 2031(1)  Course ID:005951
Using Cost Data in Decision Making
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 2-7) and their assembly in appropriate systems are presented with particular attention to component selection and behavior under various loads, climatic conditions and fire. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 161(3)  Course ID:004684
Building Materials and Construction II
The essentials of the theory of selected building materials (Construction Specifications Institute, Divisions 7-16) and their assembly in appropriate systems are presented with particular attention to component selection and behavior under various loads, climatic conditions and fire. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 170(3)  Course ID:004685
Theory and History of Architecture II
A survey of the architectural periods from the neo-classic to the present is presented. This course is a continuation of ACH 120. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 175(3)  Course ID:004686
Introduction to Systems
An overview of the various systems found in buildings and the influences that shape architectural design and construction is presented. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 180(1 - 3)  Course ID:005463
Instructor Consent Required
Selected Topics in Architectural Technology (Topic)
The subject matter of this course may vary from semester to semester as new technology is developed and new issues evolve and/or to address local architectural issues. This course may be repeated with different topics to a maximum of six credit hours. Pre-requisite: Consent of instructor. Lecture: 1-3 credits (15-45 contact hours).
Components: Lecture
Attributes: Technical

ACH 190(1 - 3)  Course ID:005463
Instructor Consent Required
Selected Topics in Architectural Technology (Topic)
The subject matter of this course may vary from semester to semester as new technology is developed and new issues evolve and/or to address local architectural issues. This course may be repeated with different topics to a maximum of six credit hours. Pre-requisite: Consent of instructor. Lecture: 1-3 credits (15-45 contact hours).
Components: Lecture
Attributes: Technical

ACH 194(3)  Course ID:004687
Visual Composition
In this course, the student will study the aesthetic principles found in both two-dimensional and three-dimensional compositions. These principles will be applied in exercises involving drawing, model construction and creative writing. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (120 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ACH 195(3)  Course ID: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: 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 to 3.0 credits (40-120 contact hours).
Components: Practicum
Attributes: Technical

ACH 200(3)  Course ID:004688
Construction Documents III
This is the third course of a four-semester studio sequence. Students study the methods by which commercial buildings are designed and constructed. Basic skills are developed relating to the implementation of determinants in this process such as program analysis, applicable codes, construction methods and materials as well as computer applications. Through the completion of a series of structured projects including the preparation of a set of architectural construction documents for a medium-sized building, students apply the knowledge necessary to achieve these goals. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours).
Pre-requisite: ACH 150 and ACH 185/ACH 195 or consent of instructor.
Components: Laboratory, Lecture
Attributes: Technical

ACH 225(3)  Course ID:004689
Structures
Students study structural materials and systems including the design of simple structural components. Pre-requisite: ACH 175 and MAH 125, or consent of instructor. Lecture: 3 credits (45 contact hours).
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 used in buildings. Pre-requisite: ACH 175 and MAT 125, or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 280(2) Course ID: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 credits (45 contact hours).
Components: Integrated Laboratory, Integrated Lecture
Attributes: Technical

ACH 285(3) Course ID:005464
Computer-Aided Drafting II
Students learn how to modify selected computer aided drafting software to enhance construction document production. Integration of other software will also be discussed. Pre-requisite: ACH 185 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture

ACH 290(3) Course ID:004694
Building Codes I
Students will analyze the content and format of current building codes. The necessity for building codes, problems in interpretation and application as well as legal aspects will be discussed. The main objective is to familiarize students with the basic provisions and procedures associated with building code administration. Pre-requisite: ACH 150 and ACH 160, or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 291(3) Course ID:004695
Construction Management
Students examine the principles and current practices of construction management with emphasis on project organization, scheduling and cost control. Pre-requisite: ACH 150, ACH 160 and ACH 161, or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 292(3) Course ID:004696
Building Codes II
This course will be continuation of ACH 290, Building Codes I, with a more in-depth study of current building codes. Pre-requisite: ACH 290 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 293(3) Course ID:004697
Presentation Techniques
Students will explore a variety of presentation and rendering techniques used in the architectural profession. Design skills and the understanding of spatial relationships will be further developed. Pre-requisite: ACH 100 or consent of instructor. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ACH 294(3) Course ID:004698
Specification Writing
This course provides an in-depth study of the importance of specifications in the design and construction process. Students will engage in research, evaluate the quality of building materials, study the methods of writing specifications, and gain exposure to industry-standard software in preparing a variety of specifications. Pre-requisite: ACH 150, ACH 160, ACH 161, or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 295(3) Course ID:004693
Computer Aided Drafting II
Students learn how to modify selected computer aided drafting software to enhance construction document production. Integration of other software will also be discussed. Pre-requisite: ACH 195 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 297(3) Course ID:004699
Estimating Techniques
Students investigate the factors affecting the cost of construction, labor productivity, materials, overhead and profit, including area and volume computations. Current methods of cost estimating will be applied. Pre-requisite: ACH 150 and MAT 125; or consent of instructor. Lecture: 2.5 credits (37.5 contact hours); Laboratory: 0.5 credits (7.5 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ACH 298(3) Course ID:004700
Computer 3D Modeling
Students learn how computer hardware and software are used in preparing 3D architectural drawings and client-oriented presentations. Pre-requisite: ACH 150 and ACH 185 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACR 100(3) Course ID:000949
Refrigeration Fundamentals
Introduces refrigerant piping and fundamentals of refrigeration including environmental issues associated with HVAC. 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. Stresses proper use and care of tools, equipment, materials, and safety. Co-requisite: ACR 100. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

ACR 102(3) Course ID:000951
Hvac Electricity
Introduces students to basic physics of electricity. Covers Ohm's law; measuring resistance, voltage, ohms, watts and amps; constructing various types of electrical circuits; selecting wire and fuse sizes; and troubleshooting an electric motor and motor controls. Co-requisite: ACR 103. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACR 103(2) Course ID:000952
Hvac Electricity Lab
Introduces students to basic physics of electricity. Provides for application of Ohm's law; and measure resistance, voltage, ohms, watts and amps; construct various types of electrical circuits; select wire and fuse sizes; and learn to troubleshoot an electric motor and motor controls. Co-requisite: ACR 102. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

ACR 112(3) Course ID:000953
Sheet Metal Fabrication
The student will learn to make patterns and lay out and construct common sheet metal duct fittings. Co-requisite: ACR 113. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACR 113(2) Course ID:000954
Sheet Metal Fabrication Lab
Provides lab time for students to lay out, cut, construct, and install common sheet metal duct fittings. Co-requisite: ACR 112. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

ACR 130(3) Course ID:000955
Electrical Components
Defines the electrical components of an air conditioning system. Includes different types of line voltages, wiring diagrams and solid state devices. Emphasizes safety. Pre-requisite: ACR 102 with a grade of C or greater. Co-requisite: ACR 131. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACR 131(2) Course ID:000956
Electrical Components Lab
Permits practice using different types of line voltages, reading wiring diagrams, and using solid state devices. Emphasizes safety. Pre-requisite: ACR 102 with a grade of C or greater. Co-requisite: ACR 130. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

ACR 170(3) Course ID:000957
Heat Load/Duct Design
Introduces fundamentals needed to calculate heat gain and heat loss, thereby determining air conditioner/ furnace size which will be used to calculate the correct duct size. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACR 200(3) Course ID:000960
Commercial Refrigeration
Develops techniques for servicing and troubleshooting mechanical and electro-mechanical refrigeration components. Emphasizes electrical and refrigeration safety. Covers proper tool use and environmentally sound refrigerant handling. Pre-requisite: (ACR 100 and ACR 101) with a grade of C or greater. Co-requisite: ACR 201. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACR 201(2) Course ID:000961
Commercial Refrigeration Lab
Provides techniques in servicing and troubleshooting mechanical and electro-mechanical refrigeration components. Emphasizes electrical and refrigeration safety. Covers proper tool use and environmentally sound refrigerant handling. Pre-requisite: (ACR 100 and ACR 101) with a grade of C or greater. Co-requisite: ACR 200. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

ACR 206(5) Course ID:007376
Boilers
Develops techniques for servicing, troubleshooting and performing preventive maintenance on steam generating systems. Emphasizes electrical and steam safety. Covers proper tool and instrument use and practices for the efficient applications on steam systems used in commercial and industrial settings. Pre-requisite: ACR 102 and ACR 103. Lecture/Lab: 5.0 credits (105 contact hours).
Components: Lecture
Attributes: Technical
ACR 207(5) Course ID: 007377
Commercial HVAC Systems
Develops techniques for servicing, troubleshooting and performing preventive maintenance on commercial HVAC systems. Emphasizes electrical and mechanical safety. Covers tools and instruments used in installing, troubleshooting, and performing preventive maintenance on commercial HVAC systems. Pre-requisite: (ACR 100 and ACR 101 and ACR 102 and ACR 103) or Consent of the Instructor. Lecture/Lab: 5.0 credits (105 contact hours).
Components: Integrated Laboratory; Integrated Lecture
Attributes: Technical

ACR 208(4) Course ID: 007378
Chillers
Develops techniques for servicing, troubleshooting and performing preventive maintenance on high-pressure, low-pressure and absorption chilled water systems. Emphasizes electrical and safety. Covers proper tool and instrument use and practices for the efficient applications on chilled water systems used in commercial and industrial settings. Pre-requisite: ACR 100 and ACR 102 and ACR 103. Lecture/Lab: 4.0 credits (75 contact hours)
Components: Lecture
Attributes: Technical

ACR 209(4) Course ID: 007379
Manual N Commercial Load Calculation and Design
Covers fundamentals needed to calculate heat gain and heat loss for commercial buildings. Introduces design conditions, solar heat gain, ventilation, internal heat gains, psychrometrics and distribution systems for air conditioning and heating, and the determination of 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, 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 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
Discusses principles of operation and application of heating systems from simple electric and fossil fuel furnaces through more complex systems such as oil burners, boilers, and hydronic systems. Concentrates on both line and control voltage circuitry pertaining to these systems. Pre-requisite: ACR 102 &103 or ET ET 154 & 155 or ET ET 112 & 113 or IMT 110 & 111 or consent from the instructor. Co-requisite: ACR 262. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACR 262(2) Course ID: 016230
Heating and Humidification Lab
Provides lab time for application of troubleshooting, checking, adjusting, and installing heating units currently in use. Pre-requisite: ACR 102 &103 or EET 154 & 155 or ETT 112 & 113 or IMT 110 & 111 or consent from the instructor. Co-requisite: ACR 260. Laboratory 2.0 credits (60 contact hours)

Components: Laboratory
Attributes: Technical

ACR 270(3) Course ID: 000967
Heat Pump Application
Explains reverse cycle heating systems, defrost cycles, reversing valves, and auxiliary heating. Concentrates on line and control voltage circuitry pertaining to these units. Pre-requisite: (ACR 100 and ACR 102) with a grade of C or greater or Permission of Instructor. Co-requisite: ACR 271. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACR 271(2) Course ID: 000968
Heat Pump Application Lab
Provides for application of troubleshooting, checking, adjusting, and installing reverse cycle units. Pre-requisite: [[(ACR 100 and ACR 102) with a grade of C or greater] or Permission of Instructor] Co-requisite: ACR 270. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

ACR 290(3) Course ID: 000969
Journeyman Preparation
Includes lectures, discussions, and presentations pertaining to the proper application of HVAC codes. Pre-requisites: To pass the Kentucky Journeyman HVAC licensing exam. This class should be taken at the end of the program. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACR 291(1) Course ID: 000970
Instructor Consent Required
Special Problems I
A course designed for the student who has demonstrated specific special needs. Pre-requisite: Permission of Instructor. Laboratory: 1 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

ACR 292(2) Course ID: 000971
Instructor Consent Required
Special Problems II
A course designed for the student who has demonstrated specific special needs. Pre-requisite: Permission of Instructor. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

ACR 293(5) Course ID: 000972
Instructor Consent Required
Special Problems III
A course designed for the student who has demonstrated specific special needs. Pre-requisite: Permission of Instructor. Laboratory: 3 credits (135 contact hours).
Components: Laboratory
Attributes: Technical

ACR 298(2) Course ID: 000973
Instructor Consent Required
Practicum
Practicum provides supervised on-the-job work experience related to the student’s educational objectives. Students participating in Practicum do not receive compensation. Pre-requisite: Permission of the Instructor. Practicum: 2 credits (150 contact hours).
Components: Practicum
Attributes: Technical

ACR 299(2) Course ID: 000974
Instructor Consent Required
Cooperative Education Program
Co-op provides supervised on-the-job work experience related to the student’s educational objectives. Students participating in the Cooperative Education program receive compensation for their work. Pre-requisite: Permission of the Instructor. Co-op: 2 credits (150 contact hours).
Components: Co-Op
Attributes: Technical

ACT 101(3) Course ID: 000004
Fundamentals of Accounting I
Students are introduced to accounting terminology and general theoretical principles. The major focus of the course is on the accounting cycle and the communication of financial information to decision-makers. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACT 102(3) Course ID: 000005
Fundamentals of Accounting II
Basic financial accounting concepts and methods are expanded to include accounting for partnerships and corporations. Lecture: 3 credits (45 contact hours). Pre-requisite: ACT 101.
Components: Lecture
Attributes: Technical

ACT 177(3) Course ID: 005238
Entrepreneurial Accounting
Includes issues and concerns that are vital to small and medium-size businesses. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

ACT 196(3) Course ID: 000007
Payroll Accounting
The design and implementation of modern payroll systems will be introduced in this course. Pre-Requisite: ACC 201 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

ACT 277(3) Course ID: 000008
Managerial Accounting Topics
The study of the uses of accounting information in managerial planning and control of organizations. Pre-requisite: ACC 202. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACT 279(3) Course ID: 000010
Computerized Accounting Systems
Applying accounting concepts and principles by using accounting software, for both service businesses and merchandisers. Includes internal control principles for both manual and computerized accounting systems. Pre-requisite: ACC 201 or ACT 101 and ACT 102 or concurrent enrollment in ACT 102. Digital literacy 3.0 hours. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

ACT 281(3) Course ID: 000013
Individual Taxation
The study of the theory and applications of federal and individual income taxes will be emphasized. Lecture: 3.0 credit hours. Pre-requisite: One semester of college accounting or consent of instructor.
Components: Lecture
Attributes: Technical

ACT 286(3) Course ID: 000014
Financial Accounting Topics
Additional in-depth exposure to financial accounting procedures for classifying, recording, reporting, and disclosure; intended primarily for students enrolled in the Accounting Technology AAS program and the Accounting Option in the Business Administration AAS Program. Pre-requisite: ACC 201 or ACT 101 and ACT 102. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical
ACT 1771(0.6) Course ID:005239
Rationale for a Well Designed Accounting System
Developing a well-designed accounting system for the entrepreneur. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

ACT 1772(0.6) Course ID:005240
Contractual and Legal Reporting Requirements
Common contractual and legal reporting requirements. Lecture: 0.6 credits (9 contact hours). Pre-requisite: ACT 1771 or consent of the instructor.
Components: Lecture

ACT 1773(0.6) Course ID:005241
Overview of Accounting for the Entrepreneur
Overview of accounting for the entrepreneur. Lecture: 0.6 credits (9 contact hours). Pre-requisite: ACT 1772 or consent of the instructor.
Components: Lecture

ACT 1774(0.6) Course ID:005242
Introduction to Computer Accounting Software to Record Basic Accounting Transactions
Computer accounting software to record basic accounting transactions. Lecture: 0.6 credits (9 contact hours). Pre-requisite: ACT 1773 or consent of instructor.
Components: Lecture

ACT 1775(0.6) Course ID:005243
Introduction to Computer Accounting Software to Generate Financial Statements
Computer accounting software to generate financial statements. Lecture: 0.6 credits (9 contact hours). Pre-requisite: ACT 1774 or consent of the instructor.
Components: Lecture

ACT 1961(0.5) Course ID:006117
Payroll Records
Introduces the records required for today’s payroll or human resource manager. Covers the relationship between Payroll and Human Resources and their common laws. Concludes with salary computations and methods to compute Gross Payroll. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

ACT 1962(0.5) Course ID:006118
Payroll Taxes
Covers federal and state tax withholding and employer-side payroll expenses. Pre-requisite: ACT 1961. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture

ACT 1963(0.5) Course ID:006119
Accounting for Payroll
Covers federal and state unemployment laws and accounting for payroll. Pre-requisite: ACT 1961. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture

ACT 1964(1) Course ID:006120
Manual Payroll
Requires the student to complete a Quarterly Payroll Simulation. Pre-requisite: ACT 1962 & 1963. Lecture: 1 credit (15 contact hours).
Components: Lecture

ACT 1965(0.5) Course ID:006121
Computerized Payroll
Requires the student to complete a Computerized Payroll Simulation. Pre-requisite: ACT 1962 & 1963. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture

ACT 2791(1) Course ID:015822
Computer Accounting Basics
Presents accounting concepts and principles for a merchandiser using computerized accounting software. Pre-requisite: ACC 201 or ACT 101 and ACT 102 or concurrent enrollment in ACT 102. Digital literacy 3.0 hours. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

ACT 2792(1) Course ID:015823
Computer Accounting Procedures
Presents computerized accounting concepts and principles for businesses including service providers. Pre-requisite: ACT 2791. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

ACT 2793(1) Course ID:015824
Advanced Features and Controls
Presents accounting concepts and principles for new businesses, including merchandisers, and covers internal controls. Pre-requisite: ACT 2792. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

ADX Automotive Technology

ADX 120(3) Course ID:000983
Basic Automotive Electricity
Introduces the student to the principles, theories, and concepts of the automotive electrical system that include the unique diagramming, coding and locating of wiring, and component devices. Co-requisite: ADX 121. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ADX 121(2) Course ID:000984
Basic Automotive Electricity Lab
Provides hands-on work designed to allow the student to use the concepts, principles, and theories covered in Basic Automotive Electricity, ADX 120, in practical application. Provides the student a work experience alternating between periods of work off campus and work in a classroom laboratory setting. Co-requisite: ADX 120. Lab: 2.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

ADX 150(3) Course ID:000985
Engine Repair
Provides a series of lectures and demonstrations on the fundamentals of engine repair, troubleshooting, and engine operation and maintenance. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ADX 151(2) Course ID:000986
Engine Repair Lab
Provides practical experiences and applications relating to engine repair, inspection, trouble shooting and maintenance. The student may be provided a work experience alternating between periods of work off campus and work in a classroom laboratory setting. Co-requisite or Pre-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. Co-requisite: ADX 170. Lab: 1.0 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

AET Applied Engineering Technology

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 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 250(4) Course ID:006376
PLC Networking
Introduces the basic concepts in PLC networking to include networking protocols specific to industrial controllers, ASCII codes, bus topologies, and handling of remote I/O. Pre-requisite: AET 190. Lecture/Lab: 4.0 credits (75 contact hours).
Components: Lecture
Attributes: Technical

AET 270(4) Course ID:006378
Advanced PLC Programming
Introduces the student to the wide range of capabilities, beyond basic programming needs, which are available to the modern PLC user. Includes data Manipulation; shift register and sequencer instructions; binary, octal and hexadecimal numbering systems; and analog inputs and outputs. Pre-requisite: EET 276 and EET 277. Lecture / Lab: 4.0 credits (75 contact hours).
Components: Lecture
Attributes: Technical

AFS Air Force Studies

AFS 111(1) Course ID:005359
Aerospace Studies I
A course designed to provide the student with a basic understanding of the nature and principles of war, national power, and the Department of Defense role in the organization of national security. The student also develops leadership abilities by participating in a military organization, the cadet corps, which offers a wide variety of situations demanding effective leadership. 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 for development of basic skills required to be a manager, including communications, human relations, and administration of equal opportunity. Credit will not be granted toward the hours requirements for the degree. Pass/Fail only. Co-requisite: AFS 111. Laboratory: 1 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

ADX 260(3) Course ID:000989
Electrical Systems
Focuses on the theory and principles relating to automotive electrical/electronic components. Co-requisite: ADX 261. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ADX 261(2) Course ID:000990
Electrical Systems Lab
Provides practical applications and experiences related to the theory and principles of automotive electrical/electronic components. The student may be provided a work experience alternating between periods of work off campus and work in a classroom laboratory setting. Co-requisite: ADX 260. Lab: 2.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

AFS 111(1) Course ID:005359
Aerospace Studies I
A course designed to provide the student with a basic understanding of the nature and principles of war, national power, and the Department of Defense role in the organization of national security. The student also develops leadership abilities by participating in a military organization, the cadet corps, which offers a wide variety of situations demanding effective leadership. 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 for development of basic skills required to be a manager, including communications, human relations, and administration of equal opportunity. Credit will not be granted toward the hours requirements for the degree. Pass/Fail only. Co-requisite: AFS 111. Laboratory: 1 credit (45 contact hours).
Components: Laboratory
Attributes: Technical
AFS 113(1) Course ID:005361
Aerospace Studies I
A course designed to provide the student with a basic understanding of the contribution of aerospace power to the total U.S. strategic offensive and defensive military posture. The student also develops leadership abilities by participating in a military organization, the cadet corps, which offers a wide variety of situations demanding effective leadership. Pre-requisite: AFS 111. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Other

AFS 114(1) Course ID:005362
Leadership Laboratory I
A continuation of AFS 113. A course designed to develop managerial skills including superior/subordinate relationships, communications, customs and courtesies, basic drill movements and career progression requirements. Credit will not be granted toward the hours requirements for the degree. Pass/Fail only. Co-requisite: AFS 113. Laboratory: 1 credit (45 contact hours).
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 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 include communications, techniques of critique, social actions, personnel evaluation procedures, problem solving, role playing and field training preparation. Credit will not be granted toward the hours requirements for the degree. Pass/Fail only. Co-requisite: AFS 213.
Components: Laboratory
Attributes: Other

AGR Agriculture

AGR 101(3) Course ID:000750
The Economics of Food and Agriculture
Introduces the field of agricultural economics and some of the basic tools and concepts of decision-making. Illustrates concepts in terms of selected current social and economic issues including the role of agriculture in both a national and international dimension. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, Technical

AGR 115(3) Course ID:015713
Agriculture Maintenance
Provides a study of basic maintenance issues (electrical, plumbing, fencing, building construction and repair, and safety) that are found in farming operations; and the practical troubleshooting and problem solving techniques. Lecture/Lab: 3.0 credits (75 contact hours).
Components: Lecture
Attributes: Technical

AGR 125(3) Course ID:002209
Introduction to Fertilizers and Soils
Introduces practical aspects of soils and fertilizers as related to plant growth and production. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credits (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

AGR 130(2) Course ID:005135
Field Applications in Agriculture
Includes methods of solving many application problems encountered in agriculture using applied mathematical and logic skills. Emphasizes practical mathematical skills already acquired from secondary education to address agricultural situations involving computations necessary for upper level courses in agriculture.
Requires some knowledge of agricultural situations. Pre-requisite: MAT 055 or equivalent placement level. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

AGR 135(3) Course ID:015714
Herbaceous Plant Production
Introduces the identification, selection, requirements, care, and use of herbaceous plant materials commonly found in food/agronomic production, including scientific name and common pests. Discusses Annuals, perennials, bulbs, and grasses. Lecture/Lab: 3.0 (60 contact hours).
Components: Lecture
Attributes: Technical

AGR 140(3) Course ID:000021
Issues in Agriculture
Provides an introduction to agriculture and current issues pertaining to the agricultural industry. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AGR 145(3) Course ID:015715
Technology in Agriculture
Provides students with a basic introduction to the newest technological advancements in the agricultural industry, including the involvement of computer-based applications. Introduces students to computer integrated management of agricultural operations, including livestock, crops, financial management, and recordkeeping. Develops understanding of equipment and farm monitoring technology and their integration with smart devices. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

AGR 150(3) Course ID:000022
Agricultural Power
Provides an introduction to farm equipment and their power units through classroom instruction that concentrates on specific principles that govern the equipment. Includes a lab that applies the principles learned in the classroom. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

AGR 155(3) Course ID:015716
Greenhouse Production
Components: Lecture
Attributes: Technical

AGR 160(3) Course ID:004279
Horticultural Science
A study of the practical principles and practices used in horticulture. Lecture: 3 credits (45 contact hours).
Components: Lecture

AGR 170(3) Course ID:000024
Introduction to Equipment, Machines, and Engines
Provides an introduction to tractors, combines, balers, forage harvesters and winrowers 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 173(2) Course ID:015717
Agriculture Marketing and Sales
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 Or Co-requisite: (AGR 150 and AGR 140) or Consent of Instructor. Lab: 2.0 credits (75 contact hours).
Components: Laboratory
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 Or Co-requisite: AGR 150 and AGR 170 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 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 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 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. NOTE: Internship III is a variable credit (1-2 credit hours) with a total 2 credit hour program requirement. Students must take a minimum of one credit hour of Internship in their last semester of enrollment or after all agricultural classes have been completed. Pre-requisite: AGR 180 and AGR 190. Lab: 2.0 credits (75 contact hours).
Components: Laboratory
Attributes: Technical
AGR 250(3) Course ID:000033
Introduction to Plants/Crop Production
Familiarizes students with the basic principles and theories involved in field crop production. Provides a limited understanding of how crops are grown as a prelude to growing crops successfully. Covers pest and pesticides as well as plant disease and protection. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (45 contact hours).

Components: Lecture
Attributes: Technical

AGR 255(3) Course ID:015723
Crop Scouting
Designed to give students a hands-on experience scouting crops to find and identify existing and potential problems related to crop growth and development, fertility, pest pressure, and similar yield reducers. Pre-requisite: AGR 235 Field Crop Production. Lecture: 3.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical

AGR 260(3) Course ID:007387
Introduction to Sustainable Agriculture
Provides students with a clear perspective on the principles, history, and practices of sustainable agriculture in our present system of agriculture. Enables students to identify principles of sustainable agriculture as they relate to basic production practices. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

AGR 265(2) Course ID:015724
Agriculture Business and Records
Provides students with an introduction to farm business management and record keeping. Emphasis is placed on business structures, developing a business plan, budgeting and basic accounting principles, agriculture tax code, and record keeping. Lecture: 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical

AGR 270(3) Course ID:007388
Introduction to Organic Agriculture
Introduces students to the theories, practice, and policy of organic agriculture. Topics covered include the history and the need for organic agriculture, fundamental organic farming practices, organic animal production, the National Organic Program, and economic and marketing considerations for organic products. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

AGR 275(3) Course ID:015725
Value Added Production
Provides students the knowledge and skills necessary to add economic value to raw farm products. Lecture: 3.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical

AGR 280(3) Course ID:007424
Livestock Management
Covers management practices involved in the production of swine, horses, cattle, sheep and goats. Emphasizes selection, reproduction, feeding, diseases, marketing, handling, and parasite control. Laboratory exercises teach and reinforce livestock management techniques. Pre-requisite: AGR 240 Introduction to Animal Science. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical

AGR 285(3) Course ID:015726
Farm Financial Management
Provides an overview of the basic concepts needed to understand commodity futures and option markets. Discuss risks and rewards, as well as other 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

AHS 100(2) Course ID:001515
Human Growth and Development
Course focus is on the promotion of health through assessment of individuals' growth and development across the life span. Consideration is given to the family, cultural, environmental, spiritual, and genetic influences when meeting basic human needs. Lecture: 2 credits (30 contact hours).

Components: Lecture
Attributes: Technical

AHS 105(3) Course ID:000037
Introduction to Health Occupations
Basic health care concepts and skills for students interested in or planning a career in health care are introduced. Basic body mechanics, health care delivery systems, caregiver/client relationships, infection control, basic assessment skills, first aid, cardiopulmonary resuscitation certification, team-building skills and problem-based learning are included. Lecture: 2.5 credit hours (37.5 contact hours); Lab: 5 credit hours (30 contact hours).

Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

AHS 109(4) Course ID:001516
Introduction to Body Structure and Functions
Provides knowledge of the structure and function of the human body with emphasis on normalcy. Includes interaction of all body systems in maintaining homeostasis and promotes an understanding of health maintenance. Not intended as a general education science course. Lecture: 4 credits (60 contact hours).

Components: Lecture
Attributes: Technical

AHS 115(3) Course ID:003808
Medical Terminology
A study of anatomical, physiological and pathological terminology with emphasis on word structures and definition of root words, suffixes, and prefixes from Greek and Latin. Additional emphasis is placed on spelling and pronunciation. Primarily designed for individuals preparing for a career in health care. No previous knowledge of Greek or Latin is required. Lecture: 3 hrs.

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

AHS 120(1) Course ID:001517
Medical Terminology
Basic medical word techniques emphasizing anatomical, physiological and medical terms. Lecture: 1 credit (15 contact hours).

Components: Lecture
Attributes: Technical

AHS 140(3) Course ID:005520
Introduction to Public and Community Health
Introduces students to the management of public health emergencies. Topics include human epidemics and pandemics, agricultural and plant diseases, and emergency medicine. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical
AIM 1101(1) Course ID:016585
Industrial Materials and Safety
Addresses safety in a traditional and CNC machining environment and introduces industrial materials and their properties. Pre-requisite: Reading and math assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture/Lab: 1.0 credits (20 contact hours)
Components: Lecture

AIM 1102(1) Course ID:016586
Metal Removal and Metrology
Introduces the science of measurement and metal removal fundamentals for various industrial processes and materials. Pre-requisites: AIM 1101. Lecture: 1.0 credit (20 contact hours)
Components: Lecture

AIM 1103(1) Course ID:016588
CNC-Nontraditional Machining
Introduces different types of nontraditional machining and CNC (G and M) coding used to control nontraditional machining. Pre-requisites: AIM 1102 or consent of instructor. Lecture/Lab: 1.0 credits (20 contact hours)
Components: Lecture

AIM 1201(1) Course ID:016589
Introduction to Plastics
Introduces polymers and the plastic industry. Includes safety in the plastic manufacturing environment as well as the history of plastic polymers and industry advancements. Pre-requisite: Reading and math assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture: 1.0 credit (20 contact hours)
Components: Lecture

AIM 1202(1) Course ID:016590
Plastic Formulation and Design
Presents the different polymer formulations (polymerization) and applications. Discusses product considerations, design for manufacturability (DFM) and extrusion. Pre-requisite: AIM 1201 or Consent of Instructor. Lecture/Lab: 1.0 credits (20 contact hours)
Components: Lecture

AIM 1203(1) Course ID:016591
Plastic Molding Processes
Presents the industry standards and process techniques of thermoforming, injection molding and laminating. Discusses different types of plastic resin and the proper handling and preparation for production. Pre-requisite: AIM 1202 or Consent of Instructor. Lecture/Lab: 1.0 credit (20 contact hours)
Components: Lecture

AIT 100(4) Course ID:005955
Power Generation and Utilization
Introduces electrical, hydraulic, and pneumatic power systems used in industry. Provides theory and application of DC and AC, including three-phase power and theory and application of hydraulic and pneumatic power utilizing basic circuits. Pre-requisite: Reading and Mathematics assessment exam scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture/Lab: 4.0 credits (90 contact hours). (30:1 Ratio Lab)
Components: Integrated Laboratory, Integrated Lecture
Attributes: Course Also Offered in Modules, Technical

AIT 110(3) Course ID:005956
Power Distribution Systems
Provides instruction in the use of electrical, hydraulic, and pneumatic power as it applies in industry. Covers AC/DC circuit analysis, single-phase and three-phase power including hydraulic and pneumatic power and basic principles of pressure and flow. Pre-requisite: AIM 100 or consent of instructor. Lecture/Lab: 3 credits (67.5 contact hours)
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

AIT 120(3) Course ID:005957
Equipment Installation
Focuses on the installation of electrical, hydraulic, and pneumatic industrial systems. Emphasizes motor installation, wiring/module selection, conduit preparation and installation, electrical/pneumatic supply piping, controls, and various lifting and rigging techniques. Pre-requisite: AIT 100 or consent of instructor. Lecture/Lab: 3.0 credits (75 contact hours). (30:1 Ratio Lab)
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules

AIT 130(4) Course ID:005958
Measurement and Instrumentation
Covers measurement and instrumentation concepts and applications, choice of proper instrumentation and calibration, manual and automated measurement processes. Pre-requisite: AIT 140 or consent of instructor. Lecture/Lab: 4.0 credits (90 contact hours). (30:1 Ratio)
Components: Laboratory, Lecture
Attributes: Technical

AIT 135(3) Course ID:007384
Industrial Refrigeration - I
Presents refrigeration fundamentals and associated components for individuals interested in safe, effective, and efficient maintenance and operation of industrial refrigeration equipment who may also be seeking RETA credentialling. Lecture: 3.0 credits (45 contact hours)
Components: Lecture
Attributes: Technical

AIT 140(4) Course ID:005959
Industrial Controls I
Provides instruction in the integrated application of basic electrical and fluid power controls. Emphasizes electrical motor controls with starting, reversing, and stopping devices, as well as various hydraulic and pneumatic valves and speed control circuits. Pre-requisite: AIT 110 or consent of instructor. Lecture/Lab: 4 credits (90 contact hours). (30:1 Ratio)
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules

AIT 145(6) Course ID:017229
Utility Technician I
Introduces the basics of safely constructing power lines. Covers pole climbing techniques, bucket truck operation and digger/derrick operation. Provides introductory training on all power line construction tools and equipment. Lecture: 1 credit hour (15 contact hours), Laboratory: 5 credit hours (225 contact hours)
Components: Laboratory, Lecture
Attributes: Technical

AIT 160(1) Course ID:005961
Workplace Safety
Focuses on General Industry safety practices as defined by the Occupational Safety and Health Administration. Covers PPE, hazard identification, walking and working surfaces, as well as other recognized workplace safety issues. Students will earn the OSHA 10-hour General Industry safety card upon successful completion of the course. Pre-requisite: Reading assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture: 1 credit hour (15 contact hours)
Components: Lecture
Attributes: Technical

AIT 220(3) Course ID:006565
The Integrated Power Grid
Introduces students to types of power plants that are tied to the electric grid other than fossil power plants. Provides overviews of nuclear, hydro, and many forms of renewable energy. Includes forms of alternative energy power plants such as solar, wind, and bio-mass power plants. Lecture: 3.0 (45 contact hours)
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

AHS 203(3) Course ID:005479
Diversity in Health Care
Introduces students to health care consumers from various cultural backgrounds. Encourages 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 care 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

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

AIS 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

AIS 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

AIS 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

AIS 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
AIT 245(6) Course ID: 017228
Utility Technician II
Covers construction of power lines. Teaches framing and use of tools required in construction. Emphasizes safety in establishing a work zone and utilizing rescue techniques. Pre-requisite: AIT 145. Lecture: 1 credit hour (15 contact hours). Laboratory: 5 credit hours (225 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

AIT 290(0.1 - 5) Course ID: 005965
Instructor Consent Required
Selected Topics in Advanced Integrated Technology
Includes selected topics in integrated technology, due to rapidly changing technology or in response to local needs. Covers topics which may vary from semester to semester at the discretion of the instructor. May repeat course with different topics to a maximum of five credit hours. Pre-requisite: Consent of instructor. Lecture/Lab: Varies by topic.
Components: Lecture
Attributes: Technical

AIT 1001(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

AIT 1002(1) Course ID: 006151
Power Development
Introduces electrical power systems used in industrial settings, including basic theory and application of alternators, electric motors, and three-phase. Pre-requisite: AIT 1001 or Consent of Instructor. Lecture/Lab: 1.0 credit (22.5 contact hours).
Components: Integrated Lecture

AIT 1003(1) 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. Lecture/Lab: 1.0 credit (22.5 contact hours).
Components: Integrated Lecture

AIT 1101(1) Course ID: 006153
Electrical Power Distribution
Provides instruction in the use of electrical power as it applies in industry. Includes AC/DC circuit analysis, AC power generation and three-phase distribution systems, and transformers. Pre-requisite: AIT 1001 or consent of instructor. Lecture/Lab: 1.0 credits (22.5 contact hours).
Components: Lecture

AIT 1102(2) Course ID: 006154
Fluid Power Distribution
Provides instruction in the use of hydraulic and pneumatic power as it applies to industry. Includes basic principles of pressure and flow, basic hydraulic/pneumatic circuits including pumps, valves, cylinders, and motors. Pre-requisite: AIT 1003 or consent of instructor. Lecture/Lab: 2.0 credit (45 contact hours).
Components: Laboratory, Lecture

AIT 1201(1) Course ID: 006155
Electrical Installation
Focuses on the installation of electrical industrial systems, including print reading, wiring/box selection, component installation, raceways and conduit, control wiring, and wiring techniques. Pre-requisite: AIT 1101 or consent of instructor. Lecture/Lab: 1.0 credit (25 contact hours).
Components: Laboratory, Lecture

AIT 1202(1) Course ID: 006156
Piping, Pneumatic, & Installation
Focuses on the installation of pneumatic industrial systems, including interpretation of drawings and diagrams, fabrication of pipe and pipe fittings, pneumatic supply lines, piping safety, and pipe installation for pneumatic systems. Pre-requisite: AIT 1102 or consent of instructor. Lecture/Lab: 1 credit (25 contact hours).
Components: Laboratory, Lecture

AIT 1203(1) Course ID: 006157
Mechanical Installation
Includes motor and machine mounting, speed, torque, power measurement, and various lifting and rigging 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 credit (25 contact hours).
Components: Laboratory, Lecture

AIT 1301(2) Course ID: 006158
Principles of Instrumentation
Introduces measurement and instrumentation concepts and applications by examining the four main components of instrumentation: temperature, pressure, flow, and level. Pre-requisite: AIT 1401 or consent of instructor. Lecture / Lab: 2.0 credit (45.0 contact hours).
Components: Laboratory, Lecture

AIT 1302(2) Course ID: 006159
Integrated Process Control
Covers measurement and instrumentation concepts and applications and introduces the concept of loop controls and the proper calibration of loops. Examines the importance of PID controllers in a control loop. Pre-requisite: AIT 1301 or consent of instructor. Lecture/Lab: 2.0 credits (45 contact hours).
Components: Laboratory, Lecture

AIT 1401(2) Course ID: 006160
Basic Electrical Controls
Provides instruction in the integrated application of basic electrical controls including electrical motor controls with starting, reversing, and stopping devices. Pre-requisite: AIT 1101. Lecture/Lab: 2 credits (45 contact hours).
Components: Laboratory, Lecture

AIT 1402(1) Course ID: 006162
Basic Pneumatic Controls
Introduces the student to pneumatic speed control circuits. Uses air pressure regulators and flow controls to obtain cylinder speeds. Pre-requisite: AIT 1102 or consent of instructor. Lecture/Lab: 1.0 credit (22.5 contact hours).
Components: Laboratory, Lecture

AIT 1403(1) Course ID: 006163
Basic Hydraulic Controls
Provides instruction in hydraulic speed and pressure control; includes flow control valves, metering circuits, pressure reducing valves, and sequence valves. Pre-requisite: AIT 1102 or consent of instructor. Lecture/Lab: 1.0 credit (22.5 contact hours).
Components: Laboratory, Lecture

AIT 1501(2) Course ID: 006164
Intermediate Electrical Controls
Provides instruction in the integrated application of advanced industrial controls for electrical systems. Emphasizes variable frequency drives, proximity sensors, SCR speed controls. Pre-requisite: AIT140 or AIT1401 or consent of instructor. Lecture/Lab: 2.0 credits (45 contact hours).
Components: Laboratory, Lecture

AIT 1502(1) Course ID: 006165
Intermediate Pneumatic Controls
Provides instruction in the integrated application of advanced industrial controls for pneumatic systems. Emphasizes pneumatic logic circuits. Pre-requisite: AIT 1402 or consent of instructor. Lecture/Lab: 1.0 credit (22.5 contact hours).
Components: Laboratory, Lecture

AIT 1503(1) Course ID: 006166
Intermediate Hydraulic Controls
Provides instruction in the integrated application of advanced industrial controls for hydraulic circuits. Emphasizes hydraulic synchronization circuits and multi-pressure circuits. Pre-requisite: AIT 1403 or consent of instructor. Lecture/Lab: 1.0 credit (22.5 contact hours).
Components: Laboratory, Lecture

AIT 1901(1) Course ID: 006562
Water and Steam Systems
Provides instruction in the main components and integration of water and steam systems within a fossil fuel power plant. (Reading and Mathematics assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses) OR consent of instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

AIT 1902(1) Course ID: 006563
Air and Gas Flows
Provides instruction in the main components and integration of air and gas flows within a fossil fuel power plant. (Reading and Mathematics assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses) OR consent of instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

AIT 1903(1) Course ID: 006564
Power Distribution
Provides instruction in the main components and integration of the power distribution of a fossil fuel power plant. (Reading and Mathematics assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses) OR consent of instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

AIT 2001(2) Course ID: 006167
Integrated Process Management
Emphasizes project team organization. Introduces the following concepts: cycle time, production time, first pass yield, and barrier identification. Pre-requisite: AIT 130 or Consent of Instructor. Lecture/Lab: 2.0 credits (45 contact hours).
Components: Integrated Laboratory, Integrated Lecture

AIT 2002(2) Course ID: 006168
Quality Control and SPC
Introduces quality control including understanding acceptance criteria with tolerances, data collection, and data reporting. Pre-requisite: AIT 130 or Consent of Instructor. Lecture/Lab: 2.0 credits (45 contact hours).
Components: Integrated Laboratory, Integrated Lecture

AIT 2101(1) Course ID: 006169
Predictive/Preventive Maintenance and Lubrication
Focuses on maintenance techniques and procedures used with advanced and highly technical industrial machinery. Pre-requisite: AIT 1101 or consent of instructor. Lecture/Lab: 1.0 credit (22.5 contact hours).
Components: Laboratory, Lecture

AIT 2102(1) Course ID: 006170
Power Transmission Systems
Focuses on maintenance techniques and procedures used with advanced and highly technical industrial machinery including v-belt and shaft drives, couplings, chain drives, bearings and seals, brakes and clutches. Pre-requisite: Reading and Mathematics assessment exam scores above KCTCS developmental placement level or successful completion of prescribed developmental courses or consent of instructor. Lecture/Lab 1.0 credit (22.5 contact hours).
Components: Lecture
Advanced Mechanical

Focuses on various installation methods required for advanced and highly technical industrial equipment components. Pre-requisite: Reading and Mathematics assessment exam scores above KC-02S developmental placement level or successful completion of prescribed developmental courses or consent of instructor. Lecture/ Lab: 2.0 credits (45 contact hours).

Components: Integrated Laboratory, Integrated Lecture

INT 270(1)

Introduction to PLCs

Examines fundamental architecture of programmable logic controllers as it pertains to industrial applications and incorporates ladder logic principles, commonly used instruction language, editing, program navigation and program analysis. Pre-requisite: INT 1401 or consent of instructor. Lecture/Lab: 1.0 credit (22.5 contact hours).

Components: Laboratory, Lecture

INT 270(2)

Introduction to Robotics

Investigates underlying principles, applications and fundamentals of 6-axis robotics including manual manipulation, execution of existing robotic program file, modification of target parameters, and safety interlocks. Pre-requisite: INT 1401, Lecture/Lab: 1.0 credit (22.5 contact hours).

Components: Laboratory, Lecture

ANT Anthropology

ANT 101(3)

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: SN - Science

ANT 102(3)

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 130(3)

Introduction to Cultural Anthropology

Examines variations in beliefs, behaviors, and institutions of different peoples. Acquaints the student with knowledge of how anthropological concepts and knowledge are used to understand and appreciate cultural diversity. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading OR completion of developmental reading courses. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: Cultural Studies, SB - Social Behavior Science

ANT 220(3)

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 and economic identity in a post-colonial world and for cultural survival 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: SB - Social Behavior Science

ANT 235(3)

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: Cultural Studies, SB - Social Behavior Science

APS Apprenticeship Studies

APS 201(20 - 40)

Apprenticeship Studies

Complements specialized study in a national or state approved apprentice curriculum (i.e. 2000 hours per year on the job in a supervised work environment and 144 hours per year of related classroom instruction). Pre-requisites: Completion of national/state certified apprenticeship program. Lecture/Lab: 20-40 contact hours (144 contact hours).

Components: Lecture

Attributes: Technical

APT Applied Process Technology

APT 102(4)

Process Fundamentals

Presents fundamental knowledge necessary for process operations. Develops an understanding of the basic principles of process operations. Covers the fundamental areas of physics, chemistry and mathematics necessary to understand their complex relationship in industry. Includes topics on fluid behavior, fluid in motion, piping and valves, and the laws and nature of heat. Pre-requisite: Test at MAT126 eligible or MAT 065 or Consent of Instructor. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (120 contact hours).

Components: Laboratory, Lecture

Attributes: Technical

APT 104(3)

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 industrial basic troubleshooting skills, and basic maintenance skills typically performed by personnel on pumps, compressors, and prime movers. Pre-requisite: Test at MAT126 eligible or MAT 065 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours), Laboratory: 2.0 credits (120 contact hours).

Components: Laboratory, Lecture

Attributes: Technical
AFT 106(2) Course ID:004538
Process Chemistry
Presents fundamental knowledge of chemistry necessary for process operations. Focuses on the basics of chemistry as they apply to water treatment and hydrocarbon processing. Includes but are not limited to: basic chemical terminology, molecular formulas, structural formulas, common chemical symbols, and the chemical nature of the operator's job, work environment, and products. Pre-requisite: Test at MAT125 eligible or MAT 065 or Consent of Instructor. Lecture: 2.0 credits (30 contact hours).
Components: Lecture Attributes: Technical
AFT 108(2) Course ID:004539
Stationary Equipment
Presents fundamental knowledge in the operation and troubleshooting of stationary equipment. Provides a solid foundation on which to build sound maintenance and operations programs. Covers common equipment designs, operating instructions, troubleshooting aids to help identify malfunctions, guides to handling emergency situations and routine scheduled maintenance tasks. Includes topics on heat exchangers, heat transfer, cooling towers, and refrigeration. Pre-requisite: Test at MAT126 eligible or MAT 065 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical
AFT 142(4) Course ID:004541
Instrumentation
Develops an understanding of how to control and operate processes. Involves work on real life simulators to ensure an understanding of process operations has been achieved. Includes measurement fundamentals and control strategies as applied to unit operations, industrial chemical operations, and operating tactics and strategies. Provides basic instruction in process control instrumentation as it relates to the manufacturing operations and will promote smoother, more efficient control of automated systems. Pre-requisite: AFT 108 with a grade of C or greater OR Instructor Consent. Lecture/Lab: 4.0 credits (105 contact hours).
Components: Lecture Attributes: Technical
AFT 144(4) Course ID:004542
Process Operations
Develops an understanding of modern processing techniques, practical examples of normal and abnormal operating situations, and advanced training in enhancing productivity while cutting operating costs. Provides maintenance personnel and technicians an understanding of the overall process and their roles in maintaining efficient production rates. Involves work on real life simulators to insure an understanding of process operations. Includes unit operations, industrial chemical operations, and a variety of equipment used in industrial processes. Pre-requisite: AFT 108 with a grade of C or greater or Permission of Instructor. Lecture: 2 credits (30 contact hours). Laboratory: 2 credits (120 contact hours/60:1 ratio).
Components: Laboratory, Lecture Attributes: Technical
AFT 146(2) Course ID:004543
Process Applications
Develops an understanding of how to control and operate processes. Involves work on real life simulators to insure an understanding of process operations. Includes a study of interactive control strategies in unit operations, industrial chemical operations, and compressor operations and applications. Pre-requisite: AFT 108 with a grade of C or greater or Permission of Instructor. Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Technical
AFT 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: AFT 108 with a grade of C or greater or Permission of Instructor. Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Technical
AFT 151(4) Course ID:005336
Power Plant Practice
Develops an understanding of power plant basics, systems, and equipment and how they are utilized to safely start-up, shutdown, control, and operate a power generation unit. Includes safe operating tactics, strategies, and procedures as they apply to normal and abnormal unit operations. Applies various safety and protection equipment and procedures to unit operations. Pre-requisite: AFT 108 with a grade of C or greater. Lecture: 4 credits (60 contact hours). Laboratory: 2 credits (120 contact hours).
Components: Laboratory, Lecture Attributes: Technical
AFT 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 incorporated into unit operations. Pre-requisite: AFT 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
AFT 158(3) Course ID:005510
Lineman Technology I
Trains the student in the use of and assembly of materials, tools, and equipment common to the electric utility industry. Provides an overview of the energy delivery system, personal responsibility in regard to safety and job requirements, qualifies the student to climb poles, and trains the student to perform tasks typically required of entry-level apprentices. Pre-requisite: AFT 108 or Consent of Instructor. Co-requisite: AFT 155, EFT 150, EFT 151. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical
AFT 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 load/unload and set poles, operate bucket truck and other hydraulic equipment, and perform tasks typically required of intermediate-level apprentices. Pre-requisite: AFT 158, AFT 159, EFT 150, EFT 151. Co-requisite: AFT 258. Laboratory: 4 credits (240 contact hours).
Components: Laboratory Attributes: Technical
AFT 292(3 - 2) 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 waste response to incidents. Covers the required knowledge for HAZWOPER Operations level response. Includes, but are not limited to: HAZCOM, HAZWOPER Operations level, personal protective equipment, working at elevated heights, respirators, SCBAs, and specific hazardous materials. Pre-requisite: Consent of Instructor. Lecture / Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical
AFT 204(1) Course ID:004546
Safety Skills Training
Presents a fundamental knowledge of OSHA, EPA and DOT regulations as concerned with hazardous waste generators. This fundamental knowledge is necessary for process operations to qualify for hazardous waste 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: AFT 140 with a grade of C or greater. Co-requisite: AFT 202. Laboratory: 1 credit (60 contact hours/60:1 ratio).
Components: Laboratory Attributes: Technical
AFT 251(2) Course ID:001036
Application of Process Operations
Prepares the student to demonstrate a working knowledge of the application of the basic components involved in process operations. Pre-requisite: Instructor Consent. Lecture/Lab: 2.0 credits (75 contact hours).
Components: Lecture Attributes: Technical
AFT 258(3) Course ID:005512
Lineman Technology II Lab
Provides hands on experience in the use of and/or assembly of intermediate materials, tools, and equipment common to the electric utility industry. Provides an opportunity for the student to load/unload and set poles, operate bucket truck and other hydraulic equipment, and perform tasks typically required of intermediate-level apprentices. Pre-requisite: AFT 158, AFT 159, EFT 150, EFT 151. Co-requisite: AFT 258. Laboratory: 4 credits (240 contact hours).
Components: Laboratory Attributes: Technical
AFT 291(2 - 3) Course ID:001037
Instructor Consent Required
Special Problems in Applied Process Technologies
Provides additional experience in identified areas of student's need. The subject area and/or tasks must be approved by an assigned instructor. Must also have a component where the student is evaluated by an industry professional. Pre-requisite: Consent of Instructor. Discussion: 2.0 - 3.0 credits (45-135 contact hours).
Components: Discussion Attributes: Technical
ART 104(3) Course ID:004346
Introduction to African Art
Examines the arts of Africa, including sculpture, painting, pottery, textiles, architecture, altar arts, human adornment and performance art, on the bases of the various artistic styles, and cultural relevance of visual art and is designed primarily for non-art majors. Utilizes visually-enhanced lectures and may include optional introductory studio experiences. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: AH - Arts and Humanities, Course Also Offered in Modules
ART 109(3) Course ID:000049
Introduction to Art
Presents a basic overview of the study, language, history and cultural relevance of visual art and is designed primarily for non-art majors. Utilizes visually-enhanced lectures and may include optional introductory studio experiences. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: AH - Arts and Humanities, Course Also Offered in Modules
ART 104(3) Course ID:004346
Introduction to African Art
Examines the arts of Africa, including sculpture, painting, pottery, textiles, architecture, altar arts, human adornment and performance art, on the bases of the various artistic styles, and cultural relevance of visual art and is designed primarily for non-art majors. Utilizes visually-enhanced lectures and may include optional introductory studio experiences. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Cultural Studies, AH - Arts and Humanities
ART 105(3) Course ID:000035
Ancient Through Medieval Art History
Surveys the historical development of art and architecture with primary emphasis on cultures of Egypt, Western Asia, Greece, Rome and Medieval Europe. Pre-requisite: English and Reading assessment exam scores above the developmental placement level or the successful completion of prescribed developmental course(s). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ART 106(3) Course ID:000036
Renaissance Through Modern Art History
Surveys the historical development of Western art and architecture from the 14th Century through the present. Pre-requisite: English and Reading assessment exam scores above the developmental placement level or the successful completion of prescribed developmental course(s). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ART 108(3) Course ID: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 109(3) Course ID:017674
Women in Art & Art History
Provides a basic overview of the visual art, artistic contributions, and lives of artists who identify as women from a global perspective. Utilizes visually-enhanced lectures and may include optional introductory visual experiences. Pre-requisite: English and Reading assessment exam scores above the developmental placement level or the successful completion of prescribed developmental course(s). Pre-requisite or Co-requisite: English and Reading assessment exam scores above the developmental placement level or the successful completion of prescribed developmental course(s). Lecture: 3.0 credit hours (45 contact hours).
Components: Lecture
Attributes: Other

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
Dimensional Design
Investigates design principles of balance, unity and variety, emphasis, and rhythm, and their application to the elements of art, including line, shape, value and color. Uses a variety of media. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 113(3) Course ID:004112
Dimensional Design
Investigates three-dimensional form and spatial design, including line, plane, mass, surface and structure. Includes the study of various materials, tools, and sculptural techniques. Lecture/Lab: 3.0 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. Lecture: 3 credits. Laboratory: 0 credits.
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 17th century. 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, including an understanding of color theory, related arts from the early Renaissance through the 17th century. 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 development of African American art and the development of personal creativity. Stresses the aesthetic and technical issues relating to basic metalsmithing techniques such as sawing, filing, piercing, forging, forming, soldering, and finishing. Emphasizes instructor-led critiques. Provides an introduction to historical and contemporary metal work. Lecture/Lab: 3.0 credit (90 contact hours).
Components: Lecture
Attributes: Other

ART 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 223(3) Course ID:007075
Jewelry/Metals I
Introduces the aesthetic and technical issues relating to basic metalsmithing techniques such as sawing, filing, piercing, forging, forming, soldering, and finishing. Emphasizes instructor-led critiques. Provides an introduction to historical and contemporary metal work. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 233(3) Course ID:007076
Jewelry/Metals II
Continues the development of techniques introduced in Jewelry/Metals I. Emphasizes problem-solving skills and the development of personal creativity. Stresses the aesthetic and technical issues relating to raising, enameling, forging, casting, and more advanced sculptural processes. Includes discussion and critique as integral parts of the coursework. Pre-requisite: ART 231 or Consent of Instructor. Lecture/Lab: 3.0 credit hours (90 contact hours).
Components: Lecture
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, Course Also Offered in Modules

ART 241(3) Course ID:004118
Ceramics II
Continues studio investigation of ceramic techniques in hand-building and/or wheel throwing, glazing, surface decoration, glazing and firing. Continued development of individual style and personal expression. Pre-requisite: ART 240. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other
ART 251(3) Course ID:016141
Graphic Communication I
Provides an introduction to graphic design principles and methods and techniques used to incorporate type and image. Applies the elements and principles of design and basic color theories for design concepts. Pre-requisite or Co-requisite: ART 110 & ART 112, OR consent of instructor. Lecture/Lab: 3.0 credits (90 contact hours)
Components: Lecture
Attributes: Other

ART 252(3) Course ID:016142
Typography
Introduces core principles of typography through a series of progressively complex studio assignments supported by readings, lectures, and software tutorials. Pre-requisite: ART 251 OR consent of instructor. Lecture/Lab: 3.0 credit hours (90 contact hours)
Components: Lecture
Attributes: Other

ART 260(3) Course ID:004119
Sculptrure 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, ART130. Lecture/Lab: 3.0 credits (90 contact hours)
Components: Lecture
Attributes: Other

ART 261(3) Course ID:006207
Sculptrure 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 arts ideas and images. Explores traditional and contemporary printmaking processes of monotype and monoprint, relief, lithography, intaglio, and stencil. Covers black and white and multiple color printing methods. Introduces printmaking vocabulary and aesthetics. Pre-requisite: (ART 110 and ART 120) or consent of instructor. Lecture/Lab: 3.0 credits (90 contact hours)
Components: Lecture
Attributes: Pre

ART 271(3) Course ID:006209
Printmaking II
Explores concepts and techniques in intaglio, lithography, screen-print and/or relief printing with an introduction to contemporary computer/digital aided printmaking processes. Stresses individual expression by creating original imagery while continuing to learn about printmaking as a process. Emphasizes two-dimensional design and color theory concepts and drawing skills. Pre-requisite: ART 270 or permission of instructor. Lecture/Lab: 3.0 credits (90 contact hours)
Components: Lecture
Attributes: Pre

ART 281(2) Course ID:006211
Digital Photography
Introduction to the skills, techniques and applications needed to create and manipulate digital photographs and to develop an understanding of photography as a fine art medium. Instruction will include the use of the digital camera and its controls to compose and capture photographs, scanning, printing and using Adobe Photoshop as a "digital darkroom". Lecture/Lab: 3.0 credits (90 contact hours)
Components: Lecture
Attributes: Other

ART 282(3) Course ID:006212
Digital Photography II
Emphasizes the creation of fine art photographs that reflect the intent and vision of the photographer. Stresses the technical and aesthetic issues relating to image capture, manipulation, printing and presentation. Explores visual and conceptual skills, professional workflow and photographic history. Pre-requisite: ART 281 or permission of instructor. Lecture/Lab: 3.0 credits (90 contact hours)
Components: Lecture
Attributes: Other

ART 290(3) Course ID:006213
Survival Skills for Artists
Introduces skills needed to attain a higher level of education and/or a career in the visual arts. Explores the wording and formatting of credentials and statements. Covers the critical language of art, digital and printed portfolios, exhibiting artwork, marketing, career opportunities, the hazards of art materials and setting up an art studio. Pre-requisite: 9 credits of ART 100 / 200 level classes or permission of instructor. Lecture: 2.0 credits (30 contact hours). Laboratory: 1.0 credit (30 contact hours)
Components: Laboratory, Lecture

ART 298(1 - 3) Course ID:006214
Instructor Consent Required
Directed Studies in Art: (Topic)
Provides an opportunity to cover topics outside the normal range of studio classes or further investigation of topics and techniques covered in studio classes. Pre-requisite: Consent of instructor. Laboratory: 1-3 credits (30-90 contact hours)
Components: Laboratory
Attributes: Other

ASL American Sign Language

ASL 101(3) Course ID:005753
American Sign Language I
A functional-notional approach to learning beginning American Sign Language (ASL). Development of basic knowledge of and understanding of conversational ASL and cultural features of the language and community. Lecture: 3 credits (45 contact hours). Laboratory: 0 credits (15 contact hours)
Components: Laboratory, Lecture
Attributes: Foreign Language, Cultural Studies, University Course (Eastern Kentucky University)

ASL 102(3) Course ID:005754
American Sign Language II
Continued development of basic knowledge of and understanding of conversational ASL and cultural features of the language and community. Pre-requisite: ASL 101 with a minimum grade of C or permission of instructor. Lecture: 3 credits (45 contact hours). Laboratory: 0 credit (15 contact hours)
Components: Laboratory, Lecture
Attributes: Foreign Language, Cultural Studies, University Course (Eastern Kentucky University)

ASL 201(3) Course ID:005755
American Sign Language III
Development of intermediate expressive and receptive ASL skills and cultural features of the language and community. Pre-requisite: ASL 102 with a minimum grade of C or permission of instructor. Lecture: 45 contact hours. Laboratory: 15 contact hours
Components: Laboratory, Lecture
Attributes: Foreign Language, University Course (Eastern Kentucky University)

ASL 202(3) Course ID:005756
American Sign Language IV
Continued development of intermediate expressive and receptive ASL skills and cultural features of the language and community. Pre-requisite: ASL 201 with a minimum grade of C or permission of instructor. Lecture: 3 credits (45 contact hours). Laboratory: 0 credits (15 contact hours)
Components: Laboratory, Lecture
Attributes: Foreign Language, University Course (Eastern Kentucky University)

AST 101(3) Course ID:000058
Frontiers of Astronomy
Covers the life histories of stars, the nature of black holes and quasars, the origin of the universe, planets of the solar system, and the possibilities for extraterrestrial life. Includes observation-based activities. A one-semester introductory course for non-science majors. Credit is not given to students who have received credit for AST 191 or AST 192. Lecture: 3 credits (45 contact hours)
Components: Lecture
Attributes: SN - Science

AST 155(3) Course ID:006341
Astrobiology
Examines topics related to the origins of planets, the requirements for life, the search for life away from Earth, the societal implications of discovering other forms of life, and the future of life on Earth and in space from a multidisciplinary perspective. Credit not available for both BIO 155 and AST 155. Pre-requisite: MT065 and ENC091or equivalent as determined by KCTCS placement examination. Lecture: 3 credits (45 contact hours)
Components: Lecture
Course Equivalents: BIO 155
Attributes: SN - Science

AST 191(3) Course ID:000060
The Solar System
Emphasizes the nature, origin, and evolution of planets, satellites, and other objects in the Solar System. Includes historical astronomy, the naked eye phenomena of the sky, and modern solar system discoveries made by spacecraft. Lecture: 3 credits (45 contact hours)
Components: Lecture
Attributes: SN - Science

AST 192(3) Course ID:000062
Stars, Galaxies and the Universe
Emphasizes the Sun and the universe outside the Solar System. Has a principal theme of the origin and evolution of stars, galaxies and the universe at large. Includes topics of black holes, quasars, and the big bang model of the universe. Pre-requisite: MAT085 or a minimum ACT math score of 18. Lecture: 3 credits (45 contact hours)
Components: Lecture
Attributes: SN - Science

AST 195(1) Course ID:000065
Introductory Astronomy Laboratory
Involves performance of exercises in both planetary and stellar astronomy, including Kepler's Laws of Planetary Motion and Newton's Laws of Motion. Examines the functions and limitations of different types of telescopes and mounts. Includes observation of the sun, moon, planets, binaries, galaxies, and nebulae. Pre-requisite or co-requisite: AST101 or AST191 or AST192. MAT 085 or two years of high school algebra, or consent of the instructor. Lab: 1.0 (15 Contact Hours)
Components: Laboratory
Attributes: SL - Science Laboratory

ATE Aviation/Airway Management

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 furnishings and access openings. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture Attributes: Technical

ATE 206(3) Course ID: 007120
Aircraft Structures III
Includes inspection of airframes to determine airworthiness. Covers the methods and techniques used in the assembly of subunits and major components of the airframe; and the rigging of primary, secondary and auxiliary control surfaces. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture Attributes: Technical

ATE 208(3) Course ID: 007121
Aircraft Structures IV
Provides instruction in the repair of wood structures, the inspection, testing, repair, selection, and installation of aircraft fabric covering; and the identification, application and inspection of 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 strut, 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 242(3) Course ID: 007124
Aircraft Powerplants I
Covers theory and development of the aircraft internal combustion engine as well as instruction in the use of engine construction and repair. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture Attributes: Technical

ATE 244(3) Course ID: 007125
Aircraft Powerplants II
Covers theory and development of the aircraft internal combustion engine as well as instruction in the use of engine construction and repair. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture Attributes: Technical

ATE 246(3) Course ID: 007128
Aircraft Powerplants III
Includes construction, repair and overhaul of turbine engines. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture Attributes: Technical

ATE 248(3) Course ID: 007129
Aircraft Powerplants IV
Includes construction, repair and overhaul of turbine engines. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture Attributes: Technical

ATE 252(3) Course ID: 007130
Aircraft Powerplants V
Includes construction, repair and overhaul of turbine engines. Covers the operation and inspection of turbine engines. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture Attributes: Technical

ATE 254(3) Course ID: 007131
Aircraft Powerplants VI
Includes construction, repair and overhaul of turbine engines. Covers the operation and inspection of turbine engines. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture Attributes: Technical

ATE 256(3) Course ID: 007132
Aircraft Powerplants VII
Includes the inspection, checking, troubleshooting, servicing and repair of engine ice and rain control systems, heat exchangers, superchargers, carburetor air intake and induction manifolds. Covers the repair of engine electrical system components, and the installing, checking, and servicing of engine electrical wiring, controls, switches, indicators, and protective devices. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture Attributes: Technical

ATE 258(3) Course ID: 007133
Aircraft Powerplants VIII
Includes the inspection, checking, troubleshooting, servicing and repair of engine ice and rain control systems, heat exchangers, superchargers, carburetor air intake and induction manifolds. Covers the repair of engine electrical system components, and the installing, checking, and servicing of engine electrical wiring, controls, switches, indicators, and protective devices. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture Attributes: Technical

ATE 252(3) Course ID: 007134
Aircraft Powerplants IX
Includes the inspection, checking, troubleshooting, servicing and repair of engine ice and rain control systems, heat exchangers, superchargers, carburetor air intake and induction manifolds. Covers the repair of engine electrical system components, and the installing, checking, and servicing of engine electrical wiring, controls, switches, indicators, and protective devices. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture Attributes: Technical
**ATE 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 instructor; course may be repeated with different topics to a maximum of six credit hours.  
Lecture: varies. Laboratory: varies. Pre-requisite: Consent of Instructor.  
Components: Laboratory, Lecture  
Attributes: Technical  

**AUT Automotive Technology**  

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<th>Course ID</th>
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| AUT 110(3) | Lecture: 3.0 credits (45 contact hours).  
**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) | Lecture: 3.0 credits (45 contact hours).  
**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) | Lecture: 3.0 credits (45 contact hours).  
**Manual Drive Train and Axes** | Involves an in-depth study of principles of operation, construction, and service of manual transmissions and related drive train components (differentials, clutches, u-joints, rear wheel drive and 4-wheel drive). Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical  |
| AUT 131(2) | Lecture: 3.0 credits (45 contact hours).  
**Manual Drive Train and Axes Lab** | Develops skills in the diagnosis and repair of manual transmissions and related drive train components (differentials, clutches, u-joints, rear wheel drive, and 4-wheel drive). The student may be provided a work experience alternating between periods of work off campus and work in a classroom laboratory setting. Pre-requisite or Co-requisite: AUT 130. Lab: 2.0 credits (90 contact hours).  
Components: Laboratory  
Attributes: Technical  |
| AUT 140(3) | Lecture: 3.0 credits (45 contact hours).  
**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) | Lecture: 3.0 credits (45 contact hours).  
**Basic Fuel and Ignition Systems Lab** | Provides skills necessary to diagnose and repair the automotive basic ignition, fuel, and emission systems and related components are developed. The student may be provided a unique work experience alternating between periods of work on-site and work in a classroom laboratory setting. Pre-requisite or Co-requisite: AUT 140. Lab: 2.0 credits (90 contact hours).  
Components: Laboratory  
Attributes: Technical  |
| AUT 142(3) | Lecture: 3.0 credits (45 contact hours).  
**Emission Systems** | Presents the theory, component identification, application, operation, service and repair of advanced automotive ignition, fuel, and emission systems, including related components. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical  |
| AUT 143(2) | Lecture: 3.0 credits (45 contact hours).  
**Emission Systems Lab** | Introduces skills necessary to diagnose, service and repair automotive advanced ignition, fuel, and emission systems, including related components are developed. The student may be provided a work-study experience alternating between periods of work off campus and work in a classroom laboratory setting. Pre-requisite or Co-requisite: AUT 142. Lab: 2.0 credits (90 contact hours).  
Components: Laboratory  
Attributes: Technical  |
| AUT 160(3) | Lecture: 3.0 credits (45 contact hours).  
**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) | Lecture: 3.0 credits (45 contact hours).  
**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) | Lecture: 3.0 credits (45 contact hours).  
**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) | Lecture: 3.0 credits (45 contact hours).  
**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) | Lecture: 3.0 credits (45 contact hours).  
**Instructor Consent Required** |  
**Practicum** | The Practicum provides supervised on-the-job work experience related to the student’s educational objectives. Students who participate in the practicum do not receive compensation. Pre-requisite: Permission of the Instructor. Practicum: 1 credit (75 contact hours).  
Components: Practicum  
Attributes: Technical  |
| AUT 199(3) | Lecture: 3.0 credits (45 contact hours).  
**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. Co-op: 1 credit (75 contact hours).  
Components: Co-op  
Attributes: Technical  |
| AUT 240(3) | Lecture: 3.0 credits (45 contact hours).  
**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  |

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| AUT 291(2) | Lecture: 3.0 credits (45 contact hours).  
**Computer Control Systems and Diagnosis Lab** | Provides 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) | Lecture: 3.0 credits (45 contact hours).  
**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) | Lecture: 3.0 credits (45 contact hours).  
**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 276. Lab: 2.0 credits (90 contact hours).  
Components: Laboratory  
Attributes: Technical  |
| AUT 290(1) | Lecture: 3.0 credits (45 contact hours).  
**Instructor Consent Required** |  
**Special Problems I** | A course designed for the student who has demonstrated specific needs for additional training. The student may be provided a work/study experience alternating between periods of work off campus and work in a classroom laboratory setting. Pre-requisite: Permission of Instructor. Laboratory: 1 credit (45 contact hours).  
Components: Laboratory  
Attributes: Technical  |
| AUT 292(3) | Lecture: 3.0 credits (45 contact hours).  
**Instructor Consent Required** |  
**Special Problems II** | A course designed for the student who has demonstrated specific needs for additional training. The student may be provided a work/study experience alternating between periods of work off campus and work in a classroom laboratory setting. Pre-requisite: Permission of Instructor. Laboratory: 2 credits (90 contact hours).  
Components: Laboratory  
Attributes: Technical  |
| AUT 298(1) | Lecture: 3.0 credits (45 contact hours).  
**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. Practicum: 1 credit hour (75 contact hours).  
Components: Practicum  
Attributes: Technical  |
AUT 299(1) Course ID:001070
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 for their work. Pre-requisite: Permission of the Instructor. Co-op: 1 credit hour (75 contact hours).
Components: Co-Op
Attributes: Technical

BAS Business Administration System

BAS 110(3) Course ID:016239
Worksheets in Business Applications
Focuses on the application of worksheet features to business practices. Provides students with the knowledge and skills necessary to apply worksheet enhanced functions to derive charts, graphs and tables to aid in analyzing business data. Provides students the opportunity to think critically and find solutions to realistic business problems through use of available data analysis tools. Pre-requisite: Computer Literacy or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

BAS 120(3) Course ID:000095
Personal Finance
Provides information needed to make intelligent choices and to take effective action in the management of personal resources. Applies financial planning, buying, borrowing, saving, budgeting, investing, insurance, and taxes to personal finances. Pre-requisite: Completion of or concurrent enrollment in MAT 65 or higher level math or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BAS 125(3) Course ID:016879
Social Media Marketing: Fundamental Concepts, Skills, and Strategies
Cultivates a basic to intermediate understanding of social media history, terminology, and concepts as they apply to the marketing and business sectors. Integrates a working knowledge of platform management and simple social media marketing strategy. Lecture: 3.0 credits (45 contact hours). Pre-requisite: Placement scores for college level reading or completion of developmental reading courses.
Components: Lecture
Attributes: Technical

BAS 126(2) Course ID:016880
Social Media Marketing: Project Management and Implementation Strategies
Prepares students to create a comprehensive social media marketing campaign, applicable to any business or organization. Learn intermediate social media strategies and best practices for engagement. Introduces the student to social media policy, procedure, and engagement guidelines that will explain how all stakeholders and groups in an organization should monitor and participate in social media interactions. Pre-requisite: BAS 125. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

BAS 155(3) Course ID:000100
Personal Selling
Introduces the professional selling process involving a series of interrelated activities with emphasis on planning and delivery of sales presentations and simulation and role playing of sales techniques. Examines the six selling steps including—prospecting, qualifying, presenting, answering objections, closing, and the after-sale service. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

BAS 160(3) Course ID:000101
Introduction to Business
Introduces business careers, terminology, and the relationships of business topics. Presents the complexities of business and the impact on communities and their economies. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BAS 170(3) Course ID:005244
Entrepreneurship
Presents topics such as product development, finance, and business plan preparation and their impact on entrepreneurship/small business management. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BAS 200(3) Course ID:000104
Small Business Management
Introduces the facets of establishing and operating and/or owning a small business, including legal forms of business organization, finance, accounting, insurance, governmental regulations and assistance, economics, marketing, and management principles. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BAS 200A(1) 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)
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 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, monitoring customer satisfaction, self-evaluation, personal mission statements, time management, communication and listening techniques, coaching, mentoring, group problem solving, and decision making techniques. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BAS 210(2) Course ID:000105
Introduction to Financial Management
Introduces the basic concepts of managing financial resources and techniques of financial analysis used for practical business decisions. Demonstrates use of financial ratios to evaluate the past performance of the firm, financial planning techniques, the effect of leverage on profitability and risk, the time value of money, and contemporary approaches to working capital management and capital budgeting. Computes financial ratios, constructs pro forma financial statements, conducts break-even analysis, and computes present and future values of funds. Pre-requisite: MAT 105 or MAT 110 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BAS 255(3) Course ID:002280
International Business
Identifies the business and managerial processes in a global context. Examines the importance and impact of the economic, cultural, and political environment on business functions. Determines the effect of management functions as they apply across various cultures. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

BAS 260(2) Course ID:004432
Professional Development and Protocol
Prepares students approaching the major career transition from college to work either as a graduating student or as a cooperative education student. Focuses on acceptable business protocol and how to project a professional image. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Same As Offering: BAS 260

BAS 267(3) Course ID:000107
Introduction to Business Law
Introduces the state and federal court systems, tort and criminal law, law of contracts, partnership, sale of goods, government regulations, bailment, negotiable instruments, methods of research, and the judicial system (discovery, trial, and appellate processes). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BAS 270(1) Course ID:000106
Business Employability Seminar
Creates an error-free portfolio of business employment documents, using computer technology to assist with composition, proofreading, and formatting. Demonstrate proper Interviewing skills through mock interviews. Course is offered on a Pass/Fail basis. Pre-requisite: (CIT 105 Introduction to Computers, Sophomore Standing, and Business Administration Program Students only) or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Enrichment Career Counseling, Technical

BAS 274(3) Course ID:000108
Human Resource Management
Introduces basic methods of recruiting, selecting, training, compensating, and maintaining a productive workforce. Examines concepts of effective employee relations including collective bargaining, contract administration, and safety and health programs. Emphasizes techniques for systematic human resource planning and development of policies consistent with government regulations. Pre-requisite: BAS 160 and BAS 283) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BAS 280(1 - 4) Course ID:004474
Business Internship
Provides an opportunity for a work experience related to the student's educational objective and concepts learned in courses required for credential. (One hour of credit, up to a maximum of four credit hours, awarded for every 40 hours of approved work experience, not to exceed 160 hours). Pre-requisite: Sophomore Standing or Consent of Instructor. Practicum/Internship: 1.0 - 4.0 credits
Components: Practicum
Attributes: Technical

BAS 282(3) Course ID:000109
Principles of Marketing
Introduces marketing functions as they apply to various types of business organizations with attention to the marketing concept, including the marketing mix of product, price, promotion, and distribution decisions; international marketing; and social responsibility. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
BAS 289(3) Course ID:000119
Principles of Management
Examines the functional framework of planning, organizing, leading, and controlling as it is utilized to introduce the management process. Introduces the interdisciplinary nature of management with the inclusion of relevant aspects of human behavior and rational decision making. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
Instructor Consent Required
Selected Topics in Business Management: (Option Topic)
Technological developments, new business issues, and/or business topics are presented and studied. Pre-requisite: Consent of Instructor. Lecture: 0.1-6.0 credits (1.5-90 contact hours).
Components: Lecture
Attributes: Technical
BAS 287(6) Course ID:000159
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 287(3) Course ID:000114
Supervisory Management
Examines the roles and responsibilities of the supervisor, emphasizing human relations skills while recognizing the behavioral factors of individuals and groups in the work environment. Applies conceptual knowledge base and skills to identify and develop the supervisor’s role and responsibilities. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
BAS 288(3) Course ID:000115
Personal and Organizational Leadership
Recognizes personal leadership skills that are essential for effective team and organizational guidance while examining organizational leadership theories that promote personal and organizational goal setting, ethical management, time management, human relations, effective communication, and fundamentals of synergy. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
BAS 289(3) Course ID:0005531
Operations Management
Introduces the fundamental concepts, principles, and practices of operations management. Introduces and examines operations management careers, terminology and concepts in both manufacturing and service organizations. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
 Attributes: Course Also Offered in Modules, Technical
BAS 290(1 - 6) Course ID:000119
Basic Electricity for Non-Majors
This course introduces non-majors to the basic physics of electricity. Students apply Ohm’s law; measure resistance, voltage, ohms, watts and amps; construct various types of electrical circuits; select wire and fuse sizes; and learn to troubleshoot an electric motor and coil. Co-requisite: BEX 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical
BEX 100(3) Course ID:000118
Basic Electricity for Non-Majors
This course introduces non-majors to the basic physics of electricity. Students apply Ohm’s law; measure resistance, voltage, ohms, watts and amps; construct various types of electrical circuits; select wire and fuse sizes; and learn to troubleshoot an electric motor and coil. Co-requisite: BEX 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical
BEX 101(2) Course ID:000119
Basic Electricity Lab for Non-Majors
This is a hands-on class designed to allow the student to use the concepts, principles, and theories covered in Basic application. Electricity for non-majors BEX 100. Co-requisite: BEX 100. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical
Interrelationships among humans, other organisms and the environment including principles of energy and matter, resource use, biogeochemical cycling, trophic structures, sustainability and human impacts on the environment. Pre-requisite/Co-requisite: BIO 120 or BIO 124. Lecture: 1 credit (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

BIO 123(3) Course ID:000175
Introduction to Conservation Biology
Historical and current perspectives on species extinction and global loss of biological diversity is presented. Methods used to conserve plant and animal life in the United States and around the world are surveyed, and conservation activities and needs are discussed in societal, cultural, economic, and political contexts. Pre-requisite: High school biology recommended. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

BIO 130(3) Course ID:000170
Aspects of Human Biology
Aspects of human biology will be introduced from the molecular level to the integrated whole. Attention will be given to the biological bases of various health and wellness issues. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

BIO 135(4) Course ID:000169
Basic Anatomy and Physiology Laboratory
Introduction to the human body and the physiological mechanisms involved in normal functioning are presented through lecture and student participation in laboratory activities. Pre-requisite: Minimum ACT Composite score 16 (or KCTCS determined equivalency); OR completion with "C" or better of any college biology or chemistry course; OR ACT of 13-15 with co-requisite OR supplemental instruction; OR consent of instructor. Lecture: 3.0 credits (45 contact hours), Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: SN - Science Laboratory, SS - Science

BIO 135S(1 - 2) Course ID:001757
Supplemental Instruction for Human Anatomy and Physiology Laboratory
Components: Lecture
Attributes: Other, Supplemental Science

BIO 137(4) Course ID:000172
Human Anatomy and Physiology Laboratory
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: College readiness in math, reading, and English; OR successful completion (C or better) of a college biology or chemistry course; OR consent of instructor for enrollment in co-requisite supplemental instruction; OR consent of instructor. Lecture: 3.0 credits (45 contact hours); Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science, Course Also Offered in Modules

BIO 137S(1 - 2) Course ID:017259
Supplemental Instruction for Human Anatomy and Physiology Laboratory
Provides supplementary instruction for students who do not meet college readiness standards for BIO 137. Covers content necessary for success in BIO 137 as needed. Pre-requisite: Consent of BIO 137 Instructor. Co-requisite: BIO 137. Lecture: 1.0-2.0 credit hours (15-30 contact hours)
Components: Lecture
Attributes: Other, Supplemental Science

BIO 139(4) Course ID:000174
Human Anatomy and Physiology II Laboratory
The second semester continues the study of the interrelationships of organ systems, including the endocrine, reproductive, cardiovascular, lymphatic, digestive, respiratory, and urinary systems. Pre-requisite: BIO 137. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science, Course Also Offered in Modules

BIO 140(3) Course ID:000138
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 Laboratory
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 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 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(2) 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 145(1) Course ID:017085
Insect Biology Laboratory
Investigate insect structure and function utilizing basic biological laboratory methodologies including study in taxonomy, phylogeny, behavior and ecology. Pre-requisite or Co-requisite: BIO 144 - Insect Biology. Lab: 1 credit hour (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

BIO 148(3) Course ID:016082
Introductory Biology I
BIO 148 introduces the student to the biological mechanisms operating at the molecular cellular and population level that contribute to the origin maintenance and evolution of biodiversity including the origins and history of the evolutionary process. Course material is presented within a phylogenetic context emphasizing the shared history of all living organisms on earth through common ancestry. The first semester of an integrated one-year sequence (BIO 148 and BIO 152). Pre-requisites: Math ACT of 23 or above or MA 109, past or current enrollment in CHE 105. (KCTCS equivalents: MA 109=MAT 150; CHE 105=CHE 170). Lecture: 3.0 credits (45 contact hours)
Components: Lecture
Attributes: University Course (University of Kentucky)

BIO 150(3) Course ID:000135
Principles of Biology I
Presents knowledge of biological principles at the cellular and molecular levels, similarities and differences in structure and function of simple and complex cells and theories on the origin and evolution of biological systems. Part one of a two semester sequence (BIO 150 and BIO 152). Lecture: 3 credits (45 contact hours). Pre-requisite: CHE 170 or concurrent enrollment or consent of instructor.
Components: Lecture
Attributes: SN - Science

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(1) Course ID:016428
Introductory Biology Laboratory
This course is designed to provide a broad introduction into the data, results, and information associated with biological research, and into some of the analytical approaches used to test biological hypotheses. Communication of these aspects of biological research is crucial, and much of this lab course will be focused on the development of effective writing skills for the delivery of this information. Pre-requisite: Math ACT of 23 or above or MA 109, past or current enrollment in CHE 105 (KCTCS equivalents: MA 109=MAT 150; CHE 105=CHE 170). Laboratory: 1 credit hour (2 contact hours).
Components: Laboratory
Attributes: University Course (University of Kentucky)
BIO 155(3) Course ID:006342
Astrobiology
Examines topics related to the origins of planets, the requirements for life, the search for life away from Earth, the societal implications of discovering other forms of life, and the future of life on Earth and in space from a multidisciplinary perspective. Credit not available for both BIO 155 and AST 155. Pre-requisite: MT065 and ENC091 or equivalent as determined by KCTCS placement examination. Lecture: 3 credits (45 contact hours).
Components: Lecture
Course Equivalents: AST 155
Attributes: SN - Science

BIO 209(2) Course ID:000142
Introductory Microbiology Laboratory
Laboratory exercises in general microbiology. Laboratory: 4 hours. Pre-requisite: One unit of chemistry or consent of instructor. BIO 208/226 should be taken concurrently.
Components: Laboratory
Attributes: SL - Science Laboratory

BIO 220(3) Course ID:000139
The Genetic Perspective
Covers introductory genetics for non-science majors examining how heredity affects humans and the remainder of the living world and providing some insights into other fields of science from the 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:000182
Medical Microbiology with Laboratory
The characteristics of microorganisms and their relation to health and disease are studied. Pre-requisite: BIO 137 and BIO 139 or equivalent. Lecture: 2 credits (30 contact hours); Laboratory: 2 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science, Course Also Offered in Modules

BIO 226(3) Course ID:000140
Principles of Microbiology
Introduction to fundamental microbiological principles and techniques emphasizing structural functional, ecological, and evolutionary relationships among microorganisms. Pre-requisite: BIO 112 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

BIO 227(5) Course ID:004989
Principles of Microbiology with Laboratory
Introduces fundamental microbiological principles and techniques emphasizing structural, functional, ecological, and evolutionary relationships among microorganisms. Includes laboratory exercises in general microbiology. Pre-requisite: BIO 114 or BIO 150 or consent of instructor. Lecture: 3 credits (45 contact hours); Laboratory: 2 credit (60 contact hours).
Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science

BIO 295(1 - 3) Course ID:000195
Instructor Consent Required
Independent Investigation In Biology
Investigates specific topics or problems in the field of the biological sciences. May be repeated for a maximum of six credits. Laboratory varies with credit. Pre-requisite: Permission of Instructor. Laboratory: Varies with credit.
Components: Independent Study, Lecture
Attributes: Other

BIO 299(1 - 3) Course ID:000197
Instructor Consent Required
Selected Topics In Biology (Topic)
Addresses recent trends and discoveries in selected areas of biology in a seminar format. Emphasizes discussion and critical thinking. May be repeated with different subtitle for a maximum of six credits. Pre-requisite: Permission of Instructor. Lecture: Varies with credit.
Components: Lecture
Attributes: Other

BIO 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 1351(1) Course ID:016826
Cells, Skin & Bones
Presents the fundamental structure of the human body including Cell and Cellular Physiology, the Integumentary System, and the Skeletal System. Emphasizes physiological mechanisms involved in normal functioning presented through lecture and student participation in laboratory activities. Pre-requisite: Reading and English assessment exam scores above the KCTCS developmental level and a mathematics placement score above the score range for MAT 065 or successful completion of the prescribed developmental course(s) or consent of the instructor. Laboratory: 0.75 credits (11.25 contact hours). Clinical: 0.25 credits (7.5 contact hours).
Components: Clinical, Laboratory

BIO 1352(1) Course ID:016827
Muscle, Regulators & Generation
Presents the fundamental structure of the human body including the Muscular System, Nervous system, Endocrine System, and Reproductive System. Emphasizes physiological mechanisms involved in normal functioning presented through lecture and student participation in laboratory activities. Pre-requisite: BIO 1351 or Consent of Instructor. Lecture: 0.75 credits (11.25 contact hours). Laboratory: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

BIO 1353(1) Course ID:016828
Lymph, Blood & Gases
Presents the fundamental structure of the human body including the Lymphatic System, Cardiovascular System, and Respiratory System. Emphasizes physiological mechanisms involved in normal functioning presented through lecture and student participation in laboratory activities. Pre-requisite: BIO 1352 or Consent of Instructor. Lecture: 1 credit (18.75 contact hours).
Components: Laboratory, Lecture

BIO 1354(1) Course ID:016829
Digestive, Renal & Electrolytes
Presents the fundamental structure of the human body including the Digestive System, the Urinary System, and Water and Electrolyte Balance. Emphasizes physiological mechanisms involved in normal functioning presented through lecture and student participation in laboratory activities. Pre-requisite: BIO 1353 or Consent of Instructor. Lecture: 0.75 credits (11.25 contact hours). Laboratory: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

BMT 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 credits (75 contact hours) (30:1 Ratio Lab).
Components: Lecture

BMT 215(4) Course ID:005966
Principles and Practices of Medical Equipment Maintenance and Management
Investigates key aspects of a Medical Technology Management Program. Emphasizes medical device service principles and practices including inspecting, testing, maintenance, calibration, and repairs. Pre-requisite: BMT 110. Co-requisite: BMT 230. Lecture/Lab: 4 credits (75 contact hours) (30:1 Ratio Lab).
Components: Lecture

BRX 110(2) Course ID:001146
Basic Blueprint Reading
Provides the student with a beginner and advanced series of lectures, demonstrations, and practice exercises in the study of prints. 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 to all shop drawings are presented. Safety will be emphasized as an integral part of the course. Lecture: 3 credits (45 contact hours).
Components: Lecture
Course Equivalents: EL 102
Attributes: Course Also Offered in Modules, Technical

BRX 210(2) Course ID:001151
Mechanical Blueprint Reading
Provides the student with an advanced series of lectures, demonstrations, and practice exercises in the study of prints involving math (both decimal and metric), combination of lines, multi-view drawings, assembly drawings, fasteners, machining and construction processes, datum coordinates, numerical control prints, sheet metal prints, welding, casting and forging prints. Safety will be emphasized; Lecture: 2 credits (30 contact hours). Pre-requisite: BRX 110 with a grade of C or greater or Consent of Instructor.
Components: Lecture
Attributes: Technical

BRX 220(3) Course ID:001150
Blueprint Reading for Construction
Provides a series of lectures, demonstrations, and practice exercises in the study of symbols, views, sections, details, and material lists found on architectural working drawings, building materials and specifications lists, and construction dimensioning systems and charts/schedules. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
BTN 110(4) Course ID:007347
Biomanufacturing
Surveys basic biomanufacturing principles and procedures designed to assure the quality and safety of a product as the manufacturing team moves the product down the biotechnology production pipeline. Introduces upstream and downstream manufacturing processes through a combination of lecture and laboratory activities. Emphasizes the role of government oversight and regulation during discovery, development, and manufacturing of bioproducts as outlined in the Good Laboratory and Good Manufacturing Practices (GLP and GMP) of the Food and Drug Administration (FDA). Pre-requisite: Completion of BTN 201 and BTN 202 with a grade of C or better, or permission of program coordinator. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
BTN 125(2) Course ID:007349
Bioinformatics I
Introduces the concepts and tools used in the application of information technology to the field of biology. Includes methods for data collection, storing and accessing biological data, fundamentals of sequence alignment, biological molecule structure prediction, and data mining and analysis. Pre-requisite or Co-requisite: Completion of, or current enrollment in BTN 201 and BTN 202. Lab: 2.0 credits (60 contact hours).
Components: Laboratory Attributes: Technical
BTN 126(2) Course ID:007350
Bioinformatics II
Applies concepts introduced in BTN 125 in the design and implementation of basic programming relating to bioinformatics problems. Emphasizes current trends in bioinformatics programming language, databases, and technology. Pre-requisite: Completion of BTN 125 with a grade of C or better or permission of program coordinator. Lab: 2.0 credits (60 contact hours).
Components: Laboratory
Attributes: Technical
BTN 127(2) Course ID:007351
Introduction to Agricultural Biotechnology
Introduces the theory and methods relating to applications of biotechnology in agriculture. Emphasizes emerging laboratory technologies in the area of agricultural biotechnology including food and natural resource management. Explores plant and animal genetic engineering. Pre-requisite: BTN 201 and BTN 202 with a grade of C or better, or permission of the program coordinator. Lab: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
BTN 201(4) Course ID:005620
Biotechnology Techniques I
Introduces theory and techniques for media and solution preparation, use of analytical equipment, and laboratory safety. Includes various nucleic acid techniques, gene expression and purification, and bioinformatics. Pre-requisite: A semester of college biology with lab or college chemistry with lab or consent of instructor. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
BTN 202(4) Course ID:005621
Biotechnology Techniques II
Covers various protein techniques, extraction and purification, and assays. Pre-requisite: BTN 201. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
BTN 210(4) Course ID:004985
Cell Culture and Function
Covers use of cell culture in modern biotechnological applications with emphasis on laboratory skills in a variety of cell culture techniques. Pre-requisite: BTN 110 with a grade of C or better or consent of instructor. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
BTS 110(1)  Course ID:007225
Environmental Risks and Precautionary Measures for the BTS Service Professional
Presents potential risks for which those involved with Biomedical Technology Systems will encounter and precautionary measures taken to assure that no harm is done. Focuses on safety awareness and management throughout the entire healthcare setting including identifying risks associated with the use and maintenance of medical technologies. Pre-requisite: RGD 30 or equivalent based on KCTCS placement exam. Lecture: 1.0 credit (15 contact hours).
Components: Lecture  Attributes: Technical

BTS 120(2)  Course ID:007226
Essentials of Biomedical Electronics I
Presents basic analog and digital semiconductor devices and their applications within medical products. Addresses how to read electronic schematics and apply basic troubleshooting skills to circuits that utilize both discrete components and integrated circuits. Focuses on such devices as diodes, transistors, thyristors, logic gates and flip-flops, and digital timing devices. Pre-requisite: AIT 110 with a grade of C or better. Lecture: Lab: 2.0 credits (37.5 contact hours).
Components: Lecture  Attributes: Technical

BTS 125(2)  Course ID:007227
Essentials of Biomedical Electronics II
Continues the presentation of analog and digital semiconductor devices by introducing more complex devices and their applications within medical products than those introduced in BTS 120. Addresses how to read electronic schematics and apply basic troubleshooting skills to circuits that utilize integrated-packaged devices and the systems that comprise them. Focuses on such devices as operational amplifiers, combinational and sequential logic devices, microprocessors, microcontrollers, and programmable logic devices. Emphasis is also given to communication circuits used in medical products. Pre-requisite: BTS 120 with a grade of C or better. Lecture/Lab: 2 credits (37.5 contact hours).
Components: Lecture  Attributes: Technical

BTS 130(2)  Course ID:007228
Medical Equipment Management I
Presents medical technology management, principles and practices with regard to medical equipment assessment, planning, acquisition, acceptance, and replacement and disposal. Pre-requisite: BTS 100, BTS 110 and AIT 1101 (each with a grade of C or better). Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture  Attributes: Technical

BTS 140(1)  Course ID:007229
Science Principles Employed in Medical Technologies
Presents physical and chemical science principles that are incorporated into medical devices and systems for the purpose of providing greater understanding into the design and operation of such technologies. Focuses on medical technologies that utilize principles involving light, sound, fluid dynamics, heat transfer, and electrochemistry. Pre-requisite: PHY 171. Pre-requisite or Co-requisite: BTS 125. Lecture: 1.0 credit (15 contact hours).
Components: Lecture  Attributes: Technical

BTS 200(2)  Course ID:007230
Patient Care Support and Management Systems
Presents systems employed throughout healthcare in support of patient care and patient management efforts with regard to their application, operation, and routine evaluation. Emphasizes systems that influence patient care in an indirect manner rather than directly providing patient care. Focuses on variety of systems including utility power systems, water and medical gas systems, nurse call systems, patient beds, sterilizers, infant abduction systems, and 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 machine, the pulmonary function analyzer, video endoscopy systems, ultrasound-generating machines, and magnetic resonance imaging (MRI) machines. Pre-requisite: BIO 135, BTS 110, BTS 125, and BTS 140 (each with a grade of C or better). Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture  Attributes: Technical

BTS 220(2)  Course ID:007232
Laboratory Devices, Instruments, and Analyzers
Presents instruments employed in the clinical laboratory setting with regard to purpose, design, maintenance, and management. Focuses on technologies such as centrifuges, microscopes, 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 credits (37.5 contact hours).
Components: Lecture  Attributes: Technical

BTS 250(2)  Course ID:007234
Introduction to Medical-Based IT Networks and Standards
Presents IT networks employed throughout the healthcare setting that are interconnected to patient care equipment and record management systems. Includes communication standards and risk management standards used by such networks. Pre-requisite: CIT 180. Pre-requisite or Co-require: CIT 180. Lecture: 2.0 credits (30 contact hours).
Components: Lecture  Attributes: Technical

BTS 260(2)  Course ID:007235
Radiographic Imaging Modalities
Presents radiographic imaging systems routinely employed in health care settings with regard to the technology, theory of operations, and quality assurance testing. 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 inpatient and intensive care settings. Focuses on clinical applications, circuit design and circuit operation, operator controls and equipment setup, managing device alarms, addressing maintenance requirements, and meeting performance and safety standards. Emphasizes a variety of medical technologies including IV pumps, electrosurgical units, defibrillators, mechanical ventilators, anesthesia machines, infant incubators, and surgical lasers. Pre-requisite: BIO 135, BTS 125, and BTS 140 (each with a grade of C or better). Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture  Attributes: Technical

BTS 275(2)  Course ID:007237
Therapeutic Equipment Modalities II
Presents therapeutic medical equipment typically utilized outside the inpatient and intensive care settings primarily towards physical therapy and treatment interventions. Focuses on clinical applications, circuit design and circuit operation, operator controls and equipment setup, managing device alarms, addressing maintenance requirements, and meeting performance and safety standards. Emphasizes a variety of medical technologies including therapeutic ultrasound units, electrical stimulation units, dialysis machines, oxygen concentrators, and hyperbaric chambers. Pre-requisite: BTS 270 and BTS 230 (each with a grade of C or better). Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture  Attributes: Technical

BTS 280(2)  Course ID:007238
General Care Monitoring and Instrumentation
Presents various physiological parameters measured in low and mid-acuity situations typically encountered in general care settings along with the instrumentation used to obtain such information. Focuses on how the technology works and how to evaluate its performance and safety. Emphasis is given to a variety of medical technologies including scales, thermometers, general electrocardiograph monitors, non-invasive blood pressure monitors, pulse oximeters, and spirometers. Pre-requisite: BIO 135, BTS 125, and BTS 140 (each with a grade of C or better). Pre-requisite Or Co-requisite: BTS 230. Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture  Attributes: Technical

BTS 285(2)  Course ID:007239
Critical Care Monitoring and Instrumentation
Continues the presentation of various physiological parameters measured in mid and high acuity situations typically encountered in intensive/critical care settings along with the instrumentation used to obtain such information. Focuses on how the technology works and how to evaluate its performance and safety. Emphasizes a variety of medical technologies including advanced electrocardiograph monitors, invasive pressure monitors, cardiac output monitors, anesthetic gas monitors, and fetal monitors. Pre-requisite: BTS 280 and BTS 230 (both with a grade of C or better). Pre-requisite or Co-requisite: BTS 250. 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 275, and BTS 285. Clinical: 2.0 credits (120 contact hours).
Components: Lecture  Attributes: Technical
CAD 100(3) Course ID:000216
Introduction to Computer Aided Design
Applies fundamental principles and capabilities of CAD, basic drafting conventions, and operations. Provides an in-depth study of computer aided drafting commands, terminology, command utilization, and skill development. Lecture: 1.0 credit (15 contact hours). Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: 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 108(3) Course ID:005186
Introduction to Surveying
Introduces the elements of surveying including measurements, distance corrections, leveling, angles, area computation, computer calculations, topographic surveying, electronic distance measuring instruments, construction surveying, GPS, and GIS. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CAD 112(4) Course ID:004054
Engineering Graphics
Explores lines and planes as they relate to orthographic projection 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 methods as it relates to residential and commercial architecture, specifications, and structural systems including wood, masonry, concrete, and steel. Pre-requisite: CAD 100 OR CAD 103 with a grade of C or better or approval of the Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

CAD 130(4) Course ID:004057
Descriptive Geometry
Examines the spatial relationships between points, lines, and planes in various orthographic projections with graphical solutions; explores the processes to solve problems using auxiliary view projection methods, revolutions, intersections, and developments. Pre-requisite: CAD 112 with a grade of C or better or approval of Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

CAD 150(4) Course ID:000217
Programming in CAD
Introduces fundamental principles of the computer language that represents and interfaces with the main CAD software. Includes writing subroutines and programs to perform CAD functions not available in the main CAD software. Pre-requisite: CAD 100 OR CAD 103 with a grade of C or better or approval of the Instructor. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

CAD 200(4) Course ID:000218
Intermediate Computer Aided Drafting
Produce advanced two- and three-dimensional object drawings with CAD software to learn the techniques of drafting, layering, and symbols associated with one or more design applications, and calculate perimeters, areas, and mass associated with the drawings. 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 211(4) Course ID:000219
Parametric Modeling
Introduces parametric modeling and design of a CAD workstation in exploring the techniques associated with drafting and designing using parametric modeling software. Introduces creation of parametric models and explores associative function and flexibility of concurrent part design. Lecture: 4.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

CAD 212(4) Course ID:004059
Industrial Drafting Processes
Explores weldment design, welding symbols, welding processes, and fabrication techniques, tool and die, and jig and fixture drawings. Includes design specifications, pattern drawings, casting, forming processes, and mechanical 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 OR CAD 103 with a grade of C or better or approval of the Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

CAD 216(4) Course ID:016429
Building Information Modeling
Introduces Building Information Modeling (BIM), an intelligent model-based process that provides insight to help plan, design, construct, manage buildings and infrastructure through three dimensional models, and generate construction drawing sheet sets. Creates structures for analytical purposes such as visualization, quality take-off, cost estimating, scheduling, coordinating and facility management across various fields, including architectural, structural and mechanical, electrical, and mechanical. 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 exteriors of student designs. Pre-requisite: CAD 120 with a grade of C or better or approval of Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

CAD 222(4) Course ID:004061
Mechanical Design
Explores the design principles, mechanical adaptation, and drafting techniques to develop drafting and mechanical working drawings and the design principles in various manufacturing disciplines; gear drawing and design, and cam and follower drawing and design; mechanical assemblies, machine design, power transmission, bearings, and seals in assemblies. Involves shop processes in these mechanical designs. Pre-requisite: CAD 100 with a grade of C or better or approval of Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

CAD 230(4) Course ID:003996
Construction Techniques
Covers the elements for constructing standard residential and commercial structures; essentials of standard construction details, which illustrate the various construction methods involved in wood frame, solid masonry, masonry veneer, concrete, and steel construction. Includes the development of a portfolio for these techniques. Pre-requisite: CAD 120 with a grade of C or better or approval of Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

CAD 240(4) Course ID:004008
Advanced Dimensioning and Measurement
Presents an in-depth study of advanced industrial drafting principles, tolerances, fits, and A.N.S.I. standards. Explores shape and geometric characteristics of parts through geometric dimensioning and tolerancing through drawing application and study. 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 tasks assigned by the instructor based on applications the student may one day experience as a professional. Sets the foundation for more in-depth projects that will be included in the student’s future portfolio. Focuses on various assignments and curriculum determined by the program instructor. Pre-requisite: Permission of the Instructor. Lab: 2.0 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

CAD 292(4) Course ID:005188
Department Consent Required
Industrial Applications
Emphasizes the development of a portfolio of mechanical drawings specific to the occupational opportunities in specific geographical locations. Focuses on various assignments and curriculum as determined by the program instructor. Pre-requisite: Approval of instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical
CAD 293(1 - 4)  Course ID:004064
Department Consent Required
Special Problems
Allows the student to gain intermediate experience in their perspective fields through projects and tasks assigned by the instructor and based on applications the student may one day experience as a professional. Sets the foundation for more in-depth projects that will be included in the student’s future portfolio. Focuses on various assignments and curriculum as determined by the program instructor. Pre-require: Approval of Program Coordinator. Lab: 1.0 - 4.0 credits (30-120 contact hours).
Components: Laboratory Attributes: Technical

CAD 298(1 - 3)  Course ID:004065
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-require: Approval of Program Coordinator. Practicum: 1.0-3.0 credits (45-135 contact hours).
Components: Practicum Attributes: Technical

CAR 196. Laboratory: 2 credits (60 contact hours).

CAR 126(3)  Course ID:001152
Intro to Construction
Provides a discussion of the different employment opportunities of carpentry-related careers within the construction industry including different construction systems and methods as well as basic management of a construction project. Emphasizes the different building materials and the correct use of hand and power tools. Includes shop and job-site safety. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

CAR 127(1)  Course ID:001153
Intro to Construction - Lab
Permits students to research different employment opportunities of carpentry-related careers. Introduces the student to different construction systems and methods as well as practice basic management methods of a construction project. Permits student to become familiar with common building materials and the correct use of hand and power tools. Implements shop and job-site safety standards. Co-require: CAR 126. Laboratory: 1 credit (30 contact hours).
Components: Laboratory Attributes: Technical

CAR 140(3)  Course ID:001154
Surveying & Foundations
Enables the student to become familiar with construction surveying methods, site layout procedures and materials used in the 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-require: CAR 140. Laboratory: 2 credits (60 contact hours).
Components: Laboratory 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, fire proofing enclosure forms, stair forms, bridge and deck forms. Familiarizes student with OSHA construction standards on Concrete and Shoring, and Excavations. Co-require: 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-require: CAR 190. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

CAR 196(3)  Course ID:001160
Light Frame Construction II
Covers basic roof design and combination roof designs used in the construction industry including the layout and installation practices that will be used to fabricate and install ceiling and roof framing systems. Provides discussion of job-site safety practice, scaffold and ladder safety that deals with roof construction, and building code requirements for roof construction and material estimating. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

CAR 197(2)  Course ID:001161
Light Frame Const. II-Lab
Covers basic roof design and construction methods used in the construction industry including layout, cut and install ceiling joists, rafters, and roof decking materials. Includes layout and installation practices for roof truss systems, job-site safety practice, scaffold and ladder safety that deals with roof construction and building code requirements for roof construction and material estimating. Co-require: 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-require: 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-require: ISX 100 and/or permission from program Instructor. Co-Op: 2-0.4-0.4 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: 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-require: CAR 200. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: 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 bath 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
Alows the student to practice the concepts that support the 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-require: 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 (NBGS) rating systems for the certification process of green buildings. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CAR 298(2)  Course ID:001166
Practicum in Construction
Refines the techniques and skills taught in the previous carpentry courses. Provides supervised on-the-job experience related to the students educational and career training objectives. Practicum can be performed on the college campus with work assignments supervised by your program coordinator. Consists of a minimum of 150 contact hours. Two credit hours will be granted after completion. Students participating in the Practicum do not receive compensation as in the co-op program. Pre-require: ISX 100 and/or Permission from program Instructor. Practicum: 2 credits (150 contact hours).
Components: Practicum Attributes: Technical
CAR 299(2) Course ID:001167
Co-op in Construction
Refines the techniques and skills taught in the previous carpentry courses. Provides a supervised on-the-job experience related to the students educational and career training objectives. The program will consist of a minimum of 150 contact hours. 2.0 credit hours will be granted after completion. 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 110(3) Course ID:016830
Dental Health Communication Skills
Provides an overview of oral health communication, oral health literacy, and patient assessment interviewing skills for the Community Dental Health Coordinator. Emphasizes impact of oral health literacy on one’s health. Includes communication strategies, verbal and nonverbal communication skills. Covers motivational interviewing, human behaviors, and health concepts emphasizing oral health. Incorporates patient assessment, feedback, education, and behavior change interventions for dental patients. Pre-requisite: Graduate or current enrollment in Commission on Dental Accreditation (CODA) accredited dental hygiene program or KCTCS dental assisting program OR a certified dental assistant OR a registered dental assistant with 5 years experience OR consent of CDHC Program Coordinator. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CDH 115(3) Course ID:016831
Dental Health Coordination, Documentation, Reporting, and Finance
Provides an overview of coordination, documentation and reporting approaches for working with families as well as individuals. Includes family assessment, case documentation and overview of the services system. Covers health care finance, the referral process and components of case management. Pre-requisite: Graduate or current enrollment in Commission on Dental Accreditation (CODA) accredited dental hygiene program or KCTCS dental assisting program OR a certified dental assistant OR a registered dental assistant with 5 years experience OR consent of CDHC Program Coordinator. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CDH 125(2) Course ID:016832
Dental Health Teaching and Learning Skills
Provides an overview of teaching and learning skills as they apply to the Dental Health field. Includes teaching and learning techniques, goal setting, critical thinking, and interviewing skills for the dental health advocate. Covers internet usage and security as well as an introduction to concepts of lifelong learning. Pre-requisite: Graduate or current enrollment in Commission on Dental Accreditation (CODA) accredited dental hygiene program or KCTCS dental assisting program OR a certified dental assistant OR a registered dental assistant with 5 years experience OR consent of CDHC Program Coordinator. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

CDH 220(3) Course ID:016833
Dental Health Advocacy and Outreach
Provides an overview of the Community Dental Health Coordinator responsibilities including advocacy concepts, process of advocacy in the community, advocacy evaluation, and assisting underserved local populations in health and social services. Covers general concepts of writing grants and proposals Pre-requisite: Graduate or current enrollment in Commission on Dental Accreditation (CODA) accredited dental hygiene program or KCTCS dental assisting program OR a certified dental assistant OR a registered dental assistant with 5 years experience OR consent of CDHC Program Coordinator. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CDH 245(6) Course ID:016834
Community Dental Health Coordinator Internship
Demonstrates practical application of the Community Dental Health Coordinator (CDHC) skills in a practicum setting. Includes knowledge and skills required to organize, develop and manage integrated dental care in community-based clinics within practice standards. Pre-requisite: Must be a registered Dental Hygienist (RDH). Practicum: 6.0 hours (360 contact hours).
Components: Lecture
Attributes: Technical

CET 150(3) Course ID:004703
Civil Engineering Graphics
This course provides the opportunity for the student to learn the basic technique necessary to generate and understand typical civil engineering working drawings. The student will develop graphic communication skills using current industry standard software. Pre-requisite: CAD 100. 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: Consent of Instructor. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

CET 210(3) Course ID:004705
Infrastructure Analysis and Design
Covers infrastructure for civil engineering technology students, including different types of building loads and their effect upon the various materials used by architects, engineers and technologists. Introduces infrastructure construction techniques utilizing applicable materials and methods. Utilization of industry manuals, specifications, and computer programs to familiarize the student with current technology. Pre-requisite: Consent of Instructor. 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, construction staking, and topographic surveys. Students will perform deed research and evaluation, convert outdated deed descriptions into current measurements, and prepare record plats. Pre-requisite: SMT 110 or Consent of Instructor. 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 hydraulics of open and closed systems, water quality and drainage. Characteristics of pressures and flows in pipes, storm water runoff, culvert and ditch flow will be studied. Pre-requisite: Consent of Instructor. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

CET 280(3) Course ID:004708
Highway Design
Students will be introduced to the fundamentals of highway design. Different components involved in designing a typical highway, including planning, surveying, mapping, and preliminary and final design will be explored using computer design software. Pre-requisite: CET 150 or Consent of Instructor. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

CET 295(1 - 4) Course ID:005036
Instructor Consent Required
Independent Problems
Provide a problem or special project, approved by the instructor, as an opportunity for independent study for Civil Engineering Technology students. Research or study current jobs or previous experience in Civil Engineering related topics. Complete required courses by studying the same materials and topics present during a normal semester offering; thereby allowing the student to complete the required course during a semester that it is not offered. This course may be repeated to a maximum of six credits. Pre-requisite: Consent of Instructor. Lecture: Variable. Laboratory: Variable. 3 credits (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

CHE 120(3) Course ID:000237
Chemistry in Society
Introduces non-science majors to the main concepts and applications of chemistry in our society. Pre-requisite: (Math ACT 18 or higher) OR (Completion of quantitative reasoning co-requisite course). 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(3)  Course ID: 0017266
Introductory General and Biological Chemistry
Prepares students for success in CHE 170. Introduces topics in general chemistry, including properties of matter, stoichiometry, gases, atomic structure, bonding, acids and bases, oxidation and reduction, and nuclear chemistry. Intended for students interested in a one-semester course in general chemistry and recommended for students seeking careers in allied health fields. Pre-requisite: (Math ACT 19 or higher) OR (Completion of MAT 085, MAT 110, MAT 116, MAT 126, or MAT 150 with a grade of "C" or better). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science Laboratory

CHE 135(1)  Course ID: 0017260
Introductory General and Biological Chemistry Laboratory
Reinforces concepts covered in CHE 130 and introduces basic laboratory techniques, methods, and instrumentation through selected experiments pertaining to chemical and physical properties, quantitative analysis, qualitative analysis, and the reactions of organic and biomolecules. Pre-requisite or Co-requisite: CHE 130 concurrent enrollment OR CHE 130 with a grade of "C" or better. Laboratory: 1 credit hour (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

CHE 140(3)  Course ID: 000224
Introductory General Chemistry
Introduces topics in general chemistry, including properties of matter, stoichiometry, gases, atomic structure, bonding, acids and bases, oxidation and reduction, and nuclear chemistry. Intended for students interested in a one-semester course in general chemistry and recommended for students seeking careers in allied health fields. Pre-requisite: (Math ACT 19 or higher) OR (Completion of MAT 085, MAT 110, MAT 116, MAT 126, or MAT 150 with a grade of "C" or better). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science Laboratory

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

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: SN - Science Laboratory

CHE 155(1)  Course ID: 006173
Introduction to Organic and Biological Chemistry Laboratory
Reinforces concepts covered in CHE 150 and introduces basic laboratory techniques, methods, and instrumentation through selected experiments dealing with the preparation, characterization, and purification of organic compounds and the reactions of biomolecules. Pre-requisite: CHE 140 and CHE 145, Pre-requisite or Co-requisite: CHE 150. Laboratory: 1 credit (45 contact hours, 45:1 ratio).
Components: Laboratory
Attributes: SL - Science Laboratory

CHE 160(2)  Course ID: 000238
Preparation for General College Chemistry
Prepares students for 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
CHW Community Health Worker

CHW 101(1) Course ID:017382
Communication for Health Worker
Teaches effective and purposeful communication by listening carefully and communicating respectfully in ways that help build trust and rapport with clients, community members, colleagues and other professionals. Considers effective communication to include a mix of listening, speaking, gathering and sharing information, and resolving conflict. Explains the Community Healthcare Workers roles, responsibilities, and limits with regards to protecting client privacy and confidentiality. Lecture 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical

CHW 102(1) Course ID:017383
Organizational and Community Outreach
Explores the use of a variety of outreach methods, such as phone calls, in-person conversations, group presentations, distribution of print and electronic information, and social media, and effectively written reports that will be sent to supervisors and patients as needed. Provides knowledge on effective outreach based on learning about community needs and strengths, knowledge about available resources, and sensitivity to personal and cultural dynamics that affect behavior and relationships. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical

CHW 103(1) Course ID:017384
Advocacy
Teaches advocacy and capacity building that can help create conditions and build relationships that lead to better health. Explores capacity building requirements such as planning, cooperation, and commitment. Examines working to change public awareness, organizational rules, institutional practices, or public policy. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical

CHW 104(1) Course ID:017385
Health Coaching
Teaches education for healthy behavior change including providing people with information, tools, and encouragement to help them improve their health and stay healthy over time. Explores working with clients, family or community members, and with providers to address issues that may limit opportunities for healthy behavior. Examines the Community Healthcare Workers role as educator and coach, using a variety of techniques to motivate and support behavior change to improve health. Lab: 1 credit hour (30 contact hours).
Components: Laboratory

CHW 105(1) Course ID:017386
Organization for Community Health Worker
Teaches how to promote coordinated and effective services by documenting their work activities, including writing summaries of client and community assessments. Examines presenting information to agency colleagues or community partners about their clients and issues they face. Explores the use of computer technology and communication in English. Discusses alternative language arrangements utilizing valuable linguistic capacities, cultural experience, and community relationship. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical

CHW 106(1) Course ID:017387
Legal and Ethics for Community Health Worker
Teaches how to handle ethical challenges as Community Healthcare Workers address legal and social challenges facing the clients and the communities they serve. Discusses client confidentiality and privacy rights in the context of employer and legal reporting requirements. Explores balancing care for clients with care for self. Examines following agency rules and the regulations governing public and private resources while exercising creativity in helping community members meet their individual and family needs. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical

CIS Computer Information Systems

CIS 2301(0.9) Course ID:005848
Word Processing Level 3
Uses advanced functions of word processing. Includes working with complex documents and creating and preparing data for distribution on the Web. Pre-requisite: (CIS 130 or CIS 1301) or consent of instructor. Lecture: 0.9 credit (13.5 contact hours).
Components: Lecture

CIS 2302(0.9) Course ID:005849
Spreadsheets Level 3
Uses advanced functions of spreadsheets. Includes working with complex spreadsheets and the creation and preparation of data for distribution on the Web. Pre-requisite: (CIS 130 or CIS 1303) or consent of instructor. Lecture: 0.9 credits (13.5 contact hours).
Components: Lecture

CIS 2303(0.9) Course ID:005850
Databases Level 3
Uses advanced functions of databases. Includes working with complex databases and the creation and preparation of data for distribution on the Web. Pre-requisite: (CIS 130 or CIS 1303) or consent of instructor. Lecture: 0.9 credit (13.5 contact hours).
Components: Lecture

CIS 2304(0.3) Course ID:005851
Presentation Software Level 3
Uses advanced functions of presentation software. Includes working with complete 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 Computer Information Tech

CIT 105(3) Course ID:004710
Introduction to Computers
Provides an introduction to the computer and the convergence of technology as used in today's global environment. Introduces topics including computer hardware and software, file management, the Internet, e-mail, the social web, green computing, security and computer ethics. Presents basic use of application, programming, systems, and utility software. Basic keyboarding skills are strongly recommended. Pre-requisite: RDG 20 or Consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Digital Literacy, Course Also Offered in Modules

CIT 111(4) Course ID:006189
Computer Hardware and Software
Presents a practical view of computer hardware and client operating systems. Covers computer hardware components; troubleshooting, repair, and maintenance; operating system interfaces and management tools; networking components; computer security; and operational procedures. Pre-requisite: (CIT 105 AND MAT 065) OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 120(3) Course ID:004712
Computational Thinking
Promotes understanding of computer programming and logic by teaching students to think like a computer. Covers skills needed to develop and design language-independent solutions to solve computer-based problems. Covers development and design basics including use of variables, control and data structures, and principles of command-line and object-oriented languages. Pre-requisite: MAT 085 or (MAT 126) OR Consent of Instructor. Pre-requisite or Co-requisite: CIT 105. 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 workshop. Pre-requisite: CIT 105 OR IM 100 OR Consent of Instructor. Co-requisite: CIT 221 OR IMD 221. 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
Attributes: Technical

CIT 130(3) Course ID:004713
Productivity Software
Utilizes current word processing, spreadsheet, database, and presentation application software to solve common business problems. Covers basic features of each software application. Pre-requisite: CIT 105 OR OST 105 OR IMD 100 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 140(3) Course ID:004714
JavaScript I
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:006902 C++ I
Introduces students to fundamental programming concepts using the C++ programming language. Includes data types, control structures, simple data structures, error-handling, modular programming, and information and file processing. Pre-requisite: CIT 120 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 143(3) Course ID:006247 C# I
Introduces students to fundamental programming concepts using the C# programming language. Includes data types, control structures, simple data structures, error-handling, object-oriented programming, graphical user interfaces, and modular programming. Pre-requisite: CIT 120 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
CIT 144(3) Course ID:006190
Python I
Introduces students to fundamental programming concepts using the Python programming language. Includes data types, control structures, simple data structures, error-handling, 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 the Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

CIT 146(3) Course ID:017009
Swift I
Introduces students to fundamental programming concepts using the Swift programming language. Includes data types, data structures, error-handling, event driven programming, and using Xcode. Pre-requisite: CIT 120 OR Consent of Instructor. Lecture: 3 credit hours (45 contact hours).
Components: Lecture

CIT 147(3) Course ID:006903
Programming I: Language
Introduces students to fundamental programming concepts using an industry-specific or emerging programming language. Includes data types, control structures, simple data structures, error-handling, modular programming, information and file processing, and uniqueness of the language used in the course. Pre-requisite: CIT 120 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CIT 148(3) Course ID:004716
Visual Basic I
Introduces students to fundamental programming concepts using the Visual Basic programming language. Includes data types, control structures, simple data structures, error-handling, modular programming, event-driven programming, graphical user interfaces, and file processing. Pre-requisite: CIT 120 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules, Technical

CIT 149(3) 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

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 151(3) Course ID:007390
Social Media I
Introduces students to the study of social media. Covers topics including the uses, basic tools, and impact of social media upon society. Examines the benefits for business to leverage the use of social media as well as employing social media policy. Pre-requisite: Digital Literacy or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture 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: Lecture

CIT 153(5) Course ID:006904
Web Page Development
Introduces web page design through the use of HTML and CSS. Teaches how to create web pages and use HTML and CSS. Includes table, forms, and scripting languages. Pre-requisite: CIT 105 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

CIT 157(3) Course ID:006905
Web Site Design and Production
Introduces web site production processes with particular emphasis on design involving layout, navigation, interactivity, and usability. Pre-requisite: CIT 105 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CIT 160(4) Course ID:004719
Intro to Networking Concepts
Introduces technical level concepts of non-vendor specific networking including technologies, media, topologies, devices, management tools, and security. Provides the basics of how to manage, maintain, troubleshoot, install, operate, and configure basic network infrastructure. Pre-requisite: MAT 65 OR Consent of Instructor. Pre-requisite or Co-requisite: CIT 111 OR Consent of Instructor Lecture: 4.0 credits (60 contact hours).
Components: Lecture

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

CIT 164(3) Course ID:006907
Switching & Routing Essentials
Covers the architecture, components, and operations of routers and switches in a larger and more complex network. Helps students learn to configure and troubleshoot routers and switches for advanced functionality including proper LAN design, configuring and troubleshooting routers and switches and resolving common issues with VTP, CDP, STP protocols, link aggregation protocols and dynamic routing protocols in both IPv4 and IPv6 networks. Pre-requisite: CIT 161 or Consent of Instructor. Lecture: 4.0 credits (60 contact hours).
Components: Lecture

CIT 170(3) Course ID:004720
Database Design Fundamentals
Provides an overview of database and database management system concepts, design concepts, normalization, network database models, development tools, and applications. Pre-requisite: CIT 150 OR CIT 102 OR CIT 104 OR IMD 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 and identity management; and cryptography. Helps to prepare students for the COMPTIA Security+ examination. Pre-requisite: CIT 160 OR CIT 161 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules, Technical

CIT 182(3) Course ID:006911
Perimeter Defense
Provides information and skills required to secure computers and networks from attacks with an emphasis on configuration of firewalls and intrusion-detection systems. Pre-requisite: CIT 180 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules, Technical

CIT 184(3) Course ID:006912
Attacks and Exploits
Provides knowledge and skills necessary to understand a variety of attacks and exploits against computers and networks. Teaches effective defensive techniques against real attacks. Pre-requisite: CIT 180 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules, Technical

CIT 201(3) Course ID:007295
Information Storage Management
Provides a comprehensive introduction to storage technology. Explores the architectures, features, and benefits of intelligent storage systems, networked storage technologies, long-term 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 CIT 262)) 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 best practices. Utilizes VMware ESXi servers and VMware vCenter servers for creation and management of virtual machines, virtual switches and storage architectures including distributed resource scheduling, high availability, and fault tolerance. Satisfies the requirements for the vSphere Foundations exam and the VMware Certified Associate Data Center Virtualization (VCA-DCV). Pre-requisite: (CIT 167 AND (CIT 214 OR CIT 217 OR CIT 262)) OR Consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Integrated Laboratory, Integrated Lecture Attributes: Technical

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CIT 204(3)  Course ID:016721  
VMware Optimize and Scale  
Provides advanced skills for configuring and maintaining a highly available and scalable virtualization infrastructure. Utilizes techniques to optimize resources in a virtualized data center to support infrastructure as a service (IaaS) architectures. Satisfies the VMware Certified Professional/Data Center Virtualization (VCP-DCV) course requirement. Pre-requisite: CIT 203 or Consent of Instructor. Lecture: 4.0 credits (60 contact hours). 
Components: Lecture  
Attributes: Technical  

CIT 205(3)  Course ID:007297  
Cloud Infrastructure and Services  
Provides a comprehensive introduction to cloud computing deployment and service models, cloud infrastructure, and the key considerations in migrating to cloud computing. Examines the required technology essentials across all domains including server, storage, networking, applications, and databases to help develop a strong understanding of virtualization and cloud computing technologies. Pre-requisite: (CIT 201 and CIT 203) or consent of instructor. Lecture: Lab: 3.0 credits (60 contact hours). 
Components: Lecture  
Attributes: Technical  

CIT 206(3)  Course ID:017347  
Amazon Web Services Practitioner  
Introduces the fundamentals of the services available in Amazon Web Services (AWS). Teaches an overall understanding of AWS Cloud, independent of specific technical roles. Uses a hands-on approach to solution development using actual AWS cloud services. Provides a detailed overview of cloud concepts, AWS services, security, architecture, pricing, and support. Prepares students for the AWS Certified Cloud Practitioner exam. Pre-requisites: CIT 170 AND (CIT 161 OR CIT 160) or consent of the instructor. Integrated Lecture/Lab 3.0 credits (60 contact hours). 
Components: Integrated Laboratory, Integrated Lecture  
Attributes: Technical  

CIT 207(3)  Course ID:017414  
Amazon Web Services Architecting  
Covers building IT infrastructure on Amazon Web Services (AWS). Teaches how to optimize use of the AWS platform by understanding AWS services and how those services fit into cloud-based solutions. Teaches how to develop and maintain a well-architected AWS cloud solution. Covers cloud solution reliability, efficiency, and cost-optimization strategies. Emphasizes best practices for the AWS cloud including the process of architecting optimal solutions. Offers a hands-on approach to solution development using actual AWS cloud services. Pre-requisites: CIT 206 AND CIT 167, or consent of instructor. Integrated Lecture/Lab: 3 credits (50 contact hours). 
Components: Integrated Laboratory, Integrated Lecture  
Attributes: Technical  

CIT 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 connection issues with OSPF, EIGRP, STP, and VTP in both IPv4 and IPv6 networks. Helps students to develop the knowledge and skills needed to implement DHCP and DNS operations in a network. Pre-requisite: CIT 167 or Consent of instructor. Lecture: 4.0 credits (60 contact hours). 
Components: Lecture  
Attributes: Course Also Offered in Modules, Technical  

CIT 212(4)  Course ID:004723  
Connecting and Scaling 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 to develop the knowledge and skills needed to implement virtual private network (VPN) operations in a complex network. Develops skills in network service security using OSPFv2, ACLs, NAT. Covers network automation, troubleshooting and virtualization. Pre-requisite: CIT 209 OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours). 
Components: Lecture  
Attributes: Course Also Offered in Modules, Technical  

CIT 213(3)  Course ID:006192  
Microsoft Client Configuration  
Covers installation and configuration of the current Microsoft Windows client operating system. Helps prepare students for exam 70-643, Microsoft certification exam series. Pre-requisite: (CIT 111 AND (CIT 160 OR CIT 161)) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours). 
Components: Lecture  
Attributes: Course Also Offered in Modules, Technical  

CIT 214(3)  Course ID:006914  
Microsoft Server Configuration  
Provides students with the knowledge and skills to install, configure and administer a network server infrastructure including DNS, DHCP, Hyper-V, including the design and implementation of an Active Directory environment. Covers how to implement and configure secure network access, implement fault tolerant storage technologies, enable network technologies most commonly used with Windows Servers and IP-enabled networks, configure an Active Directory environment, and work with virtual drives and devices. Assists in preparing students for various Microsoft certification exam series. Pre-requisite: (CIT 111 AND (CIT 160 OR CIT 161)) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours). 
Components: Lecture  
Attributes: Course Also Offered in Modules, Technical  

CIT 215(3)  Course ID:015661  
Microsoft Server Administration  
Covers the skills needed to maintain and administer a Windows Server 2012 environment, including user and group management, network access, and data security at an intermediate level. Helps prepare students to implement a core Windows Server infrastructure in an enterprise environment (second in a series of three courses). Pre-requisite: CIT 214 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours). 
Components: Lecture  
Attributes: Course Also Offered in Modules, Technical  

CIT 216(3)  Course ID:015648  
Microsoft Server Advanced Services  
Covers the advanced configuration tasks necessary to deploy, manage and maintain a Windows Server environment, including fault tolerance, certificate services, and identity federation. Helps prepare students to implement a core Windows Server 2012 infrastructure in an enterprise environment (third in a series of three courses). Pre-requisite: CIT 214 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours). 
Components: Lecture  
Attributes: Course Also Offered in Modules, 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. Learn the fundamental skills necessary to install UNIX/Linux and maintain a UNIX/Linux system on a day-to-day basis. Pre-requisite: (CIT 111 AND (CIT 160 OR CIT 161)) OR Consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours). 
Components: Lecture  
Attributes: Course Also Offered in Modules, Technical  

CIT 218(3)  Course ID:004725  
UNIX/Linux Network Infrastructure  
Establishing secure networking environments is a key strength of the UNIX/Linux operating system. Explores naming, messaging, file transfer, remote login, routing, address assignment, distributed file systems, web, and email services in a standard UNIX/Linux server environment. Pre-requisite: CIT 217 OR Consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours). 
Components: Lecture  
Attributes: Technical  

CIT 219(3)  Course ID:006915  
Internet Protocols  
Provides an in-depth exploration of the components of the TCP/IP protocol suite and the associated underlying technologies required to support them. Includes design, installation, configuration, management, and troubleshooting of TCP/IP networks. Pre-requisite: (CIT 160 OR CIT 161) OR Consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours). 
Components: Lecture  
Attributes: Technical  

CIT 221(3)  Course ID:006916  
Computer Graphics  
Introduces basic computer graphics with an emphasis on graphics for game design. Explores the fundamentals of client-server network technology popular for game design. Explores the development of the Internet and its applications for network gaming. Explores the relationship between network gaming and the Internet. Pre-requisites: CIT 105 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours). 
Components: Lecture  
Attributes: Technical  

CIT 222(3)  Course ID:016260  
3D Modeling for Video Games  
Introduces 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 manipulation of 3D objects 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  
Explores advanced concepts of character animation for game design. Explores the specialized process of animating 3D assets for gaming applications. Familiarizes students with animating both organic and inorganic assets, lighting scenes, rendering and producing cut-scenes, and preparing character assets for in-game motion. Allows students to acquire the necessary skills and techniques to integrate audio with their animations using basic sound-engineering software and processes. Pre-requisite: CIT/IMD 124 AND CIT/IMD 222 OR Consent of Instructor. Co-requisite: CIT 127 OR Consent of Instructor. Lecture/Lab: 3.0 credits (45 contact hours). 
Components: Lecture  
Course Equivalents: IMD 223  
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. Explores a variety of field data utilizing GPS devices and data collection applications. Pre-requisite: CIT 125 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours). 
Components: Lecture  
Attributes: Technical  

CIT 229(3)  Course ID:006919  
Selected Topics in GIS  
Explores selected topics in Geographical Information Systems such as homeland security, agriculture, government applications, remote sensing, spatial modeling, GPS techniques, or cartography. (Course may be repeated with different topics to a maximum of six credit hours.) Pre-requisite: CIT 125 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours). 
Components: Lecture  
Attributes: Technical
CIT 232(3) Course ID:006193
Help Desk Operations
Introduces a variety of tools and techniques to provide user support in help desk operations. Explores help desk concepts, customer service skills, troubleshooting problems, writing for end users, help desk operations and software, needs analysis, facilities management, and other topics related to end user support. Pre-requisite: CIT 111 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: 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 distribution on the web. Pre-requisite: CIT 130 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CIT 236(3) Course ID:004728
Adv Data Organization Software
Uses advanced functions of databases and spreadsheets. Explores complex databases and spreadsheets for the creation and preparation of data distribution on the Web. Pre-requisite: CIT 130 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CIT 237(3) Course ID:017021
iOS Programming
Introduces students to fundamental iOS mobile application development concepts. Prepares students to design, code, test, and publish iOS mobile applications for iOS platforms. Pre-requisite: CIT 146 OR Consent of Instructor. Lecture: 3 credit hours (45 contact hours).

Components: Lecture
Attributes: Technical

CIT 238(3) Course ID:016862
Android Programming I
Introduces students to fundamental Android mobile application development concepts. Prepares students to design, code, test, and publish Android mobile applications for a variety of mobile device platforms. Includes secure coding learning modules for Java and Android. Pre-requisite: CIT 149 OR INF 120 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CIT 241(3) Course ID:006920 PHP II
Explores the dynamic features of PHP and how it can interact to form sophisticated 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:006249 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 244(3) Course ID:015649
Python II
Provides students with an extensive overview of designing advanced computer applications using the Python programming language. Includes graphical user interfaces, event-driven programming, modular programming, advanced object-oriented programming, advanced data types and structures, input validation, error-handling, data processing, and client/server programming. Pre-requisite: CIT 144 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CIT 247(3) Course ID:006923
Programming II: Language
Introduces students to advanced programming concepts using an industry-specific or emerging programming language. Includes advanced features of the language studied, such as, advanced data structures, concurrency, innovative algorithms, advanced file processing, and topics that are unique to the language studied. Pre-requisite: CIT 147 (for the same programming language) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CIT 248(3) Course ID:004729
Visual Basic II
Provides students with an extensive overview of designing advanced computer applications using the Visual Basic programming language. Includes graphical user interfaces, event-driven programming, modular programming, object-orientated programming, advanced data types and structures, input validation, error-handling, and file and database processing. Pre-requisite: CIT 148 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CIT 249(3) Course ID:005208
Java II
Provides students with an extensive overview of designing and developing advanced object-oriented applications using the Java programming language. Includes input and output streams (file processing), polymorphism, inheritance, multithreading, recursion, and other advanced topics. Pre-requisite: CIT 149 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CIT 251(3) Course ID:007392
Social Media II
Provides students with skills, knowledge, and experience to respond to the challenges of a rapidly changing world through the implementation of social media strategies. Examines social media plans for building social profiles, selecting appropriate audiences, and effective communication through identified social media tools. Covers additional trends, case studies, and research on the creation on utilization of web and social media technologies and practices. Pre-requisite: CIT 151 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 253(3) Course ID:005039
Data Driven Web Pages: (Topic)
Provides students with the knowledge and skills to design, implement, and manage a database-driven web site. Includes the study of databases and web servers in e-commerce, transaction processing, and client-side and server-side Web scripting. Includes the creation of a database-driven Web site. Pre-requisite: ((CIT 150 OR 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: (CIT1150 OR CIT1555 OR CIT157) AND (CIT214 OR CIT216 OR CIT262) AND CIT219 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CIT 257(3) Course ID:006925
Applied Internet Technologies
Provides a framework for integrating the content of the Internet Technologies Web Programming track into a complete and functioning web site. Creates a portfolio of a fully functional web site to aid in student employment within the Web Programming field. Pre-requisite or Co-requisite: CIT 253 or Co-Requisite of CIT 255 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CIT 258(3) Course ID:005211
Internet Technologies Seminar
Incorporates research, study, and discussion of current and emerging topics, issues, and trends in Internet technologies. Requires participation in class presentations, as well as individual and/or group projects involving Internet technologies. Pre-requisite or Co-requisite: CIT 253 or Co-Requisite of CIT 255 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CIT 260(3) Course ID:004730
Network Hardware Installation and Troubleshooting
Provides students with the knowledge and skills necessary to design, install, configure, and troubleshoot cabling systems and equipment used to connect a local area network. Pre-requisite: CIT 160 OR CIT 161 OR Consent of Instructor. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (30 contact hours).

Components: Laboratory, Lecture

CIT 261(3) Course ID:005209
MS Active Directory Services
Provides students with the knowledge and skills necessary to install, configure, and administer Microsoft Windows Directory Services. Focuses on implementing Group Policy and understanding the Group Policy tasks required to centrally manage users and computers. Assists in preparing students for exams in the Microsoft certification exam series. Prerequisite: (CIT 111 AND (CIT 160 OR CIT 161)) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 262(3) Course ID:005210
MS Network Infrastructure
Provides students with the knowledge and skills necessary to install, configure, manage, and support a network infrastructure using a Microsoft Windows server operating system. Assists in preparing students for exams in the Microsoft certification exam series. Pre-requisite: (CIT 111 AND (CIT 160 OR CIT 161)) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical
CIT 263(1 - 6) Course ID:006246
Advanced Topics in Microsoft Windows: (Topic)
Covers concepts and/or skills from special areas of interest in Microsoft Windows operating systems. Focus on specific topics that will vary from semester to semester at the discretion of the instructor. Pre-requisite: CIT 213 or consent of instructor. Lecture: 1-6 credits (15-90 contact hours).
Components: Lecture
Attributes: Technical

CIT 264(3) Course ID:006194
Microsoft Server Management
Focuses on the concepts and skills required to manage and maintain Microsoft Windows Servers. Topics include configuration and management of storage solutions, deployment images, Hyper-V implementations, and Windows containers. Pre-requisite: CIT 262 OR Consent of Instructor. Lecture: 3 credit hours (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, 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 267(3) Course ID:017561
UNIX/Linux Network Services
Focuses on installing and managing network services in a UNIX/Linux environment. Pre-requisite: CIT 218 OR Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 271(3) Course ID:004732 SQL II
Provides an extensive overview of SQL using programming to create, query, manage and maintain databases. Uses advanced features of SQL including stored procedures and triggers, to design and interface with a database and other applications. Pre-requisite: CIT 171 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 272(3) Course ID:016261
Game Design Theory
Introduces students to the experience-oriented standards and techniques of gaming on a digital platform. Includes hands-on conceptualization and writing of a game created by the student. Emphasizes creativity, player experiences and motivations, styles of play, types of games, character creation, world creation, and story-driven narrative within a video game. Offers students the opportunity to complete an industry-quality Game Design Document. Pre-requisite: CIT/IMD 124 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 273(3) Course ID:016262
Game Production
Provides students with the opportunity to produce a fully playable 3D video game using assets and materials created in previous courses. Offers students the opportunity to employ an industry-standard game engine to mold 3D content, audio, narrative, character, and environment into a professional and enjoyable video game experience. Pre-requisite: CIT/IMD 124 AND CIT/IMD 222 OR Consent of Instructor. Co-requisite: CIT 223 OR IMD 223. 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
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 creation of a portfolio. Pre-requisite: CIT/IMD 223 AND CIT/IMD 273 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Course Equivalents: IMD 274
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:006928
Visual Basic III
Provides students with the knowledge and skills to design, develop, and implement distributed and Web client applications using the Visual Basic programming language. Includes advanced application and user interface design, custom libraries, ActiveX Objects, stored procedures, and distributed applications. Pre-requisite: CIT 248 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 281(3) Course ID:006929
Computer Forensics
Provides basic knowledge on methods and processes for computer forensics, intrusion detection, evidence collection, disk imaging, and report writing. Pre-requisite: CIT 180 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 282(3) Course ID:006930
MS Windows OS Security
Provides students the knowledge and skills necessary to secure the Windows operating system. Pre-requisite: CIT 180 AND CIT 214 OR CIT 262 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 285(3) Course ID:006931
UNIX/Linux OS Security
Provides students the knowledge and skills necessary to secure the UNIX/Linux operating system and to utilize the UNIX/Linux operating system for security functions. Emphasizes use of freely available security tools. Pre-requisite: CIT 180 AND CIT 217 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 287(3) Course ID:006932
Cisco OS Security
Provides students with comprehensive understanding of network security concepts. Includes installation, troubleshooting and monitoring of network devices to maintain integrity, confidentiality and availability of data and devices. Covers implementation of hosts and perimeter edge device firewalls and defense in-depth prevention systems. Pre-requisite: CIT 167 OR CIT 212 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 288(3) Course ID:006197
Network Security
Provides students with the knowledge and skills necessary to understand and defend against a variety of computer and network attacks. Focuses on both the offensive techniques used to launch attacks and the defensive techniques required to defend computers and networks. Pre-requisite: (CIT 180 AND 1 Level 1 Network Technologies Specialization Sequence) OR Consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 290(3) Course ID:004733
Instructor Consent Required
Internship
Provides on-the-job experience in computer and information technologies, requiring a minimum of 120 clock hours of appropriate experience approved by the faculty member (40 clock hours per credit); requires a learning contract, signed by the student, faculty member, and supervisor. Note: Course is offered on pass-fail basis only. Pre-requisite: Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 291(3) Course ID:006198
Capstone
Apply acquired techniques, knowledge, and skills to successfully analyze, design, and plan a CIT project. Develop key project management and system analysis deliverables in a portfolio. Pre-requisite: 36 credit hours of CIT Courses OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 293(1 - 3) Course ID:017008
Employability Studies
Covers 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 295(1 - 3) Course ID:004741
Independent Problems in CIT: Topic
Explores concepts and/or skills from special areas of interest in Computer & Information Technologies. Topics vary from semester to semester. May be repeated up to two times with different topics to a maximum of 6 credit hours. Pre-requisite: Consent of Instructor. Lecture: 1.0 - 3.0 credits (15-45 contact hours).
Components: Lecture
Attributes: Technical

CIT 296(1 - 3) Course ID:004742
Special Topics in CIT: (Topic)
Explores concepts and/or skills from special areas of interest in computer and information systems. May be repeated with different topics to a maximum of 6 credit hours. Pre-requisite: Consent of Instructor. Lecture: 1.0 - 3.0 credits (15-45 contact hours).
Components: Lecture
Attributes: Technical

CIT 1051(0.5) Course ID:006972
Computer Basics
Provides an introduction to the computer and the convergence of technology including computer hardware and software, the social web, green computing, security and computer ethics. Pre-requisite: RDG 20 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

CIT 1052(0.6) Course ID:006973
System and Utility Software
Introduces file management and presents basic use of systems and utility software. Pre-requisite: RDG 20 OR Consent of Instructor. Lecture: 0.6 credits (9.0 contact hours).
Components: Lecture
CIT 1053(0.8) Course ID:006974
Internet, Email, and Networks
Introduces the Internet, e-mail, course management systems and networking. Pre-requisite: RDG 20 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1054(0.5) Course ID:006975
Globalization and the Cloud
Introduces globalization and impact and use of cloud computing. Pre-requisite: RDG 20 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

CIT 1055(0.6) Course ID:006976
Software Basics
Presents basic use of application and programming software. Pre-requisite: RDG 20 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 1301(0.8) Course ID:006980
Word Processing Applications
Utilizes word processing application software to solve common business problems. Pre-requisite: CIT 105 OR OST 105 OR IMB 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

CLA Classical Languages and Literature
CLA 1313 Course ID:000274
Medical Terminology from Greek and Latin
Latin and Greek roots, prefixes, and suffixes as found in medical terminology. Primarily for pre-medical, pre-dental, pre-nursing, and pre-veterinary students, but others will be admitted for help in vocabulary building. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Other

CMM Comp Manufacturing & Machining
CMM 110(3) Course ID:001812
Fundamentals of Machine Tools - A
Provides the basic principles needed for a solid foundation in machine tool technology. Covers shop safety, bench work, drill press, power saw, measurement, and lathes. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours/30:1 ratio).
Components: Laboratory, Lecture Attributes: Technical

CMM 112(3) Course ID:001813
Fundamentals of Machine Tools - B
Provides the basic principles needed for a solid foundation in machine tool technology. Includes shop safety, bench work, drill press, power saw, measurement, and lathes. Pre-requisite: (CMM 110 with a grade of C or greater) or Consent of Instructor. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

CMM 114(6) Course ID:001814
Fundamentals of Machine Tools
Provides the skills and knowledge that is needed to progress through the machine tool program. Includes safety and bench work. Introduces the basic power equipment and machine tools that are used in the machine trades which include: drill presses, power saws, measurement instruments, mills and lathes. Lecture: 1.0 credits (15 contact hours). Lab: 5.0 credits (150 contact hours/30:1 ratio).
Components: Laboratory, Lecture Attributes: Technical

CMM 118(2) Course ID:001815
Metrology/Control Charts
Provides the basic principles in using precision measurement instruments and their application to inspection and quality control. Lecture/Lab: 2.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CMM 120(3) Course ID:001816
Applied Machining I
Consists of intermediate level skills using machining machines and surface grinders. Includes the selection of grinding wheels. Pre-requisite: ((CMM 110 and 112) or CMM 114 with a grade of C or greater) or Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours/30:1 ratio).
Components: Laboratory, Lecture Attributes: Technical

CMM 122(3) Course ID:001817
Applied Machining II
Carries the student to higher levels in the operation of machine tools. Pre-requisite: (CMM 120 with a grade of C or greater) or Consent of Instructor. Lab: 3.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

CMM 124(6) Course ID:001818
Applied Machining
Allows the student to begin performing skills that will combine the use of different types of machine and begin to give them a complete picture of the machine tool career. Pre-requisite: ((CMM 110 and CMM 112) or CMM 114 with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 6.0 credits (165 contact hours).
Components: Lecture Attributes: Technical

CMM 130(3) Course ID:001819
Manual Programming
Introduces the student to CNC codes and programming, set-up and operation of CNC machine tools. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours/30:1 ratio).
Components: Laboratory, Lecture Attributes: Technical

CMM 132(3) Course ID:001820
CAD/CAM/CNC
Introduces the student to CAD/CAM/CNC systems which includes CAM software. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours/30:1 ratio).
Components: Laboratory, Lecture Attributes: Technical

CMM 134(6) Course ID:001821
Manual Programming CAD/CAM/CNC
Introduces the student to CAD/CAM/CNC systems, CNC format, the Cartesian Coordinate System, CNC codes and programming, set-up and operation of CNC machine tool. Pre-requisite: ((CMM 110 and CMM 112) or CMM 114 with a grade of C or greater) or Consent of Instructor. Lecture: 2.0 credits (30 contact hours); Laboratory: 4.0 credits (120 contact hours/30:1 ratio).
Components: Laboratory, Lecture Attributes: Technical

CMM 138(6) Course ID:006243
Intro. to Programming & CNC Machines
Introduces CAD/CAM and CNC equipment. Covers program codes and set up operations used on a variety of machine tools including technologies like waterjet. Pre-requisite: ((CMM 110 and CMM 112) or (CMM 114) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 6.0 credits (150 contact hours)(30:1 Ratio Lab).
Components: Lecture Attributes: Technical

CMM 150(2) Course ID:005089
Shop Theory
Covers shop theory, processes, and basic concepts of machine tool operations utilized in the tool and die field. Includes areas and machine concepts: safety, measurement, layout work, bench work, saws, drills, drilling machines, mills and lathes. Lecture: 2.0 credits (30 contact hours).
Components: Lecture Attributes: Technical

CMM 151(3) Course ID:005090
Machinery's Handbook and Metallurgy
Introduces the Machinery's Handbook as a reference source for solving manufacturing problems and provides a working knowledge of the principles and concepts contained in the Handbook. Explores processes involved in heat-treating steels to a specific hardness, toughness, wear capability. Covers the identification, classification, application, and processing of Tool Steels. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CMM 152(3) Course ID:005091
Jigs, Fixtures and Gaging
Introduces jigs, fixtures and work holding devices, including separate uses and principles. Applies machining processes to design jigs and fixtures. Uses print knowledge to identify part datums for gaging points. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CMM 153(3) Course ID:005092
Mold Theory
Presents mold-making including thermoplastic and 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 dowell holes, punch and punch blocks, die life, bending dies, pilots, die block construction, stock strippers, stock guides, progressive dies, stock strips and secondary operations of notch, trim, and shave. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical
CMM 210(3) Course ID:001822
Industrial Machining I
Covers the classification of metals, identification of tool steels and their applications. Requires the student to perform advanced milling machine operations that simulate industry standards. Pre-requisite: (CMM 122 or 124) with a grade of C or greater) or Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours/30:1 ratio).
Components: Laboratory, Lecture Attributes: Technical

CMM 212(3) Course ID:001823
Industrial Machining II
Permits the student to receive instruction in any area where advanced work is needed or an area where there is student interest. Pre-requisite: (CMM 210 with a grade of C or greater) or Consent of Instructor: Lab. 3.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

CMM 214(6) Course ID:001824
Industrial Machining
Covers the classification of metals, identification of tool steels and their applications. Requires the student to perform advanced milling machine operations that simulate industry standards. Includes special projects in this course so the student will receive instruction in a specific area. Pre-requisite: (CMM 122 or CMM 124) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 6.0 credits (180 contact hours).
Components: Laboratory, Lecture

CMM 218(8) Course ID:005530
Advanced Machining Techniques for Manufacturing
Allows for construction of sinker electrodes in the production of die and mold forms. Includes wire electrodischarge machines (edm) machining of die sections, punch retainers, stripper plates, punch forms and use of cylindrical grinder ID and OD and angular grinding on die and mold components. Pre-requisite: CMM 216 with a grade of C or greater. Lecture: 2.0 credits (30 contact hours). Lab: 6.0 credits (180 contact hours).
Components: Laboratory, Lecture

CMM 220(4) Course ID:001825
Advanced Industrial Machining I
Allows for construction of electrodes and the production of parts by the use of an Electrical Discharge machine. (National Standards require EDM and cylindrical grinder training. Colleges lacking this equipment can only present theory) KCTCS is presently trying to acquire EDM and cylindrical grinders.) Pre-requisite: (CMM 130 and CMM 132) or (CMM 134 and (CMM 212 or CMM 214) with a grade of C or greater) or Consent of Instructor: Laboratory: 4 credits (120 contact hours/30:1 ratio).
Components: Laboratory Attributes: Technical

CMM 222(2) Course ID:001826
Advanced Industrial Machining II
Advances students to a higher level of industrial standards by exposing them to additional tasks using a cylindrical grinder. **National Standards require EDM and cylindrical grinder training. Those programs lacking this equipment can only present theory) KCTCS is presently trying to acquire EDM and cylindrical 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 224(6) Course ID:001827
Advanced Industrial Machining
Designed to allow for the construction of electrodes and the production of parts by the use of an Electric Discharge Machine (EDM), cylindrical grinder, and other type of grinders. **National Standards require EDM and cylindrical grinder training. Colleges lacking this equipment can only present theory) KCTCS is presently trying to acquire EDM and cylindrical grinders. Pre-requisite: (CMM 134 and CMM 212 or CMM 214) with a grade of C or greater) or Consent of Instructor. Laboratory: 6.0 credits (180 contact hours or 270 Clinical Contact). Components: Laboratory Attributes: Technical

CMM 230(6) Course ID:001828
Instructor Consent Required
Conversational Programming
Introduces the student to conversational programming of CNC machine tools. Pre-requisite: Consent of Instructor. Lecture/Lab: 6.0 credits (150 contact hours).
Components: Lecture Attributes: Technical

CMM 234(6) Course ID:006244
CNC Machines & Coding Practices
Introduces the student to conversational programming of CNC machine tools to include conversational setup and run options found on a CNC water jet machine. 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). (30:1 Ratio Lab).
Components: Lecture Attributes: Technical

CMM 240(6) Course ID:001829
Introduction to 3-D Programming
Introduces 3-D Programming using CAM systems to effect engineering changes that enhance productivity. Uses CAM system to create and produce complex 3-D parts. Pre-requisite: ((CMM 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 a grade of C or greater) or Consent of Instructor. Lecture/Lab: 6.0 credits (150 contact hours).
Components: Lecture Attributes: Technical

CMM 298(1) Course ID:001830
Instructor Consent Required
Practicum
Provides supervised on-the-job work experience related to the student's educational objectives. (Students participating in the Practicum do not receive compensation.) Pre-requisite: Permission of the Instructor. Practicum: 1.0 credit (75 contact hours).
Components: Practicum Attributes: Technical

CMM 299(1) Course ID:001831
Instructor Consent Required
Cooperative Education Program
Provides supervised on-the-job work experience related to the student's educational objectives. (Students participating in the 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
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 2401(3) Course ID:005087
Introduction to 3D Code Sequencing and Tool Path Production
Introduces students to creation of 3-D models and allows use of those models to be used in creation of tool paths for CNC machine tools. Pre-requisite: ((CMM 130 and CMM 132) or (CMM 134 with a grade of C or greater) or Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Lecture

CMM 2402(3) Course ID:005088
Advanced 3D Code Sequencing and Macro Systems
Introduces 3-D Programming using CAM systems to effect engineering changes that enhance productivity. Uses the CAM system to create and produce complex 3-D parts. Pre-requisite: ((CMM 130 and CMM 132) or (CMM 134 or CMM 138) and (CMM 2401) with a Grade of C or greater) or Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Lecture

CMM Communications

CMS 105(3) Course ID:000292
Multimedia Production and Applications I
Students are introduced to the technologies and applications of multimedia systems including production, presentation, and transmission of video, voice, and data. Lecture: 2.0 credits; Laboratory: 2.0 credit hours.
Components: Laboratory, Lecture Attributes: Technical

CMS 141(1 - 4) Communications Practicum
Student works a minimum of two hours each week with the college radio station or TV station. Independent Study: 1 - 4 credits (15 - 60 contact hours).
Components: Independent Study

CMS 142(1 - 4) Communications Practicum
Student works a minimum of two hours each week with the college newspaper. Practicum: 1-4 credit hours (30-120 contact hours). Course may be repeated for a total of 4 credit hours.
Components: Practicum Attributes: Other

CMS 155(3) Course ID: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 a photographer. 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 159(3) Course ID:000294
Communications Practicum
Student works a minimum of two hours each week with the college radio station or TV station. Independent Study: 1 - 4 credits (15 - 60 contact hours).
Components: Independent Study

CMS 162(3) Course ID:000295
Communications Practicum
Student works a minimum of two hours each week with the college newspaper. Practicum: 1-4 credit hours (30-120 contact hours). Course may be repeated for a total of 4 credit hours.
Components: Practicum Attributes: Other

CMS 240(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
COE Cooperative Education

COE 199(1 - 6) Course ID:000309
Cooperative Education: (Associate in Applied Science Degree, Diplomas, and Certificate Programs)
Cooperative Education is a planned and evaluated work experience related to the student’s educational objective for which the student receives both financial remuneration and academic credit. One credit hour is awarded for completion of additional required activities. While the maximum amount of credit granted for cooperative education experience varies by curriculum, the amount may never exceed eight hours in an Associate in Applied Science Degree, diploma or certificate program. This course is available only to students enrolled in Associate in Applied Science Degree, diploma and certificate program that list Cooperative Education as an approved course. Co-op: 1-6 hours. Pre-requisite: Completion of at least 12 credit hours in the Associate in Applied Science Degree, diploma or certificate program of study and/or marketable skills in the area in which the student is enrolled, and minimum cumulative grade point average (GPA) of 2.0.
Components: Co-Op
Attributes: Technical

COED Cooperative Education

COED 198(1 - 6) Course ID:005265
Practicum
Provides a planned and evaluated work experience related to the student’s educational objective for which the student receives academic credit but no financial remuneration. Practicum: 1-6 credits (45-405 contact hours). Pre-requisite: Consent of Instructor.
Components: Practicum
Attributes: Technical

COED 199(3) Course ID:001203
Cooperative Education I
Cooperative education is a planned and evaluated work experience related to the students educational objective. The student receives both financial and remuneration and academic credit for this class. One credit hour is awarded for successful completion of 60 hours of approved work experience. Pre-requisite: Consent of Instructor.
Components: Co-Op
Attributes: Technical

COM Communications

COM 101(3) Course ID:000310
Introduction to Communications
Introduces the process of communication as a critical element in human interaction and in society. Enhances effective communication and informed use of the mass media. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science

COM 181(3) Course ID:000311
Basic Public Speaking
Applies the basic principles and techniques in research, organization, and delivery of speeches for informative and persuasive speaking purposes. Provides practical platform experience in developing speaking abilities to enable the student to communicate orally in clear, coherent language appropriate to the purpose, occasion, and audience. Pre-requisite: Current KCTCS placement scores for college level reading and writing OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: OC - Oral Communication, 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. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Other

COM 205(3) Course ID:016093
Business and Professional Communication
Provides opportunity to examine and develop oral communication strategies appropriate to business and professional environments. Includes oral presentations, interpersonal communication strategies, intercultural communication, interviewing, communicating in teams, leadership communication and conflict resolution skills. Does not substitute for COM 161 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 communication management, effective listening, conflict management, communication climate, communication anxiety, and cultural/gender differences in interpersonal communication. Pre-requisite Or Co-requisite: Current KCTCS placement scores for College level reading and writing, or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: OC - Oral Communication, Course Also Offered in Modules

COM 254(3) Course ID:004552
Introduction to Intercultural Communication
Introduces intercultural communication with an emphasis on the relationships between culture and communication, social/psychological variables, verbal/nonverbal language systems, intercultural communication perceptions, and conflict resolution. Includes the practical application of contemporary issues in cross-cultural interaction, media representation, and daily social interactions to intercultural communication concepts. Pre-requisite or Co-requisite: Current KCTCS placement scores for college level reading and writing, or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

COM 281(3) Course ID:000316
Communication in Small Group
Examines communication processes in small group situations including conflict, leadership, and decision making. Includes perspective-taking, relationship and communication management, effective listening, conflict resolution skills. Includes perspective-taking, relationship and communication management, effective listening, conflict resolution, 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 284(1) Course ID:002198
Intercollegiate Debating
Preparation for and participation in intercollegiate debating. May be repeated to a maximum of four credits. Lecture: 1 credit hour (15 contact hours).
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 299(3) 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
COMM 2522(1) Course ID:005801
Communicating and Responding
Examines basic verbal and nonverbal concepts affecting the communication process in various interpersonal contexts. Topics include both verbal and nonverbal elements affecting communication between individuals in setting ranging from the family, peer groups, and work contexts. Pre-requisite: COMM 2521. Lecture: 1 credit (15 contact hours).
Components: Lecture

COMM 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 relations and the components involved in such relationships including compliance-gaining and conflict resolution. Pre-requisite: COMM 2522. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

COS Cosmetology

COS 107(4) Course ID:017362
Student Teaching I
Introduces teaching methods used in training cosmetology, esthetics, and nail technology students. Demonstrates teaching methods of theory, media use, and testing methods. Develops and applies the methods used to teach the practical application of skills. Demonstrates the Kentucky Board of Cosmetology rules and regulations. Lecture: 3 credits (45 contact hours). Laboratory: 11 credits (330 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

COS 108(6) Course ID:017165
Cosmetology I Theory
Identifies attitudes and behaviors for successful Cosmetology practice. Describes Kentucky Statutes and regulations, safety, bacteriology, sanitation, infection control, basic first aid, structure of the hair and nails and disorders of the scalp and nails as related to hairstyling, shaping, manicures and pedicures. Pre-requisite: High school diploma or equivalent. Lecture: 6 credit hours (90 contact hours).
Components: Lecture
Attributes: Technical

COS 109(6) Course ID:017166
Cosmetology I Practical Application
Demonstrates the methods of theory, media use, and techniques used to teach the practical application of skills. Provides knowledge of the art and science of nail technology. Provides for the study of the functions and benefits of electrotherapy including pre-and post-operative care for physician treatments and the application of various cosmeceutical products. Pre-requisite: COS 136 or Instructor permission. Lecture: 7 credits (120 contact hours). Laboratory: 8 credits (360 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

COS 114(14) Course ID:001213
Cosmology 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. Lecture: 14 credits (450 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

COS 116(14) Course ID:001214
Cosmology II, 6-2
A study of basic chemistry with emphasis placed on the physical and chemical properties of cosmetic materials. Electricity and light therapy are discussed and an in-depth study of anatomical structures affected by cosmetological services including disorders of the skin, scalp, hair, and nails. The instructor gives the students progressively more difficult assignments with close supervision. Lecture: 14 credits (450 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

COS 117(14) Course ID:017365
Student 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 the methods used to teach the practical application of skills. Provides preparatory work to prepare the apprentice instructor for the Kentucky Board of Hairdressers and Cosmetologists instructor examination. Pre-requisite: COS 107. Lecture: 3 credits (45 contact hours). Laboratory: 11 credits (330 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

COS 118(5) Course ID:017167
Cosmetology II Theory
Examines chemistry with emphasis placed on the physical and chemical properties of cosmetic materials, chemical application techniques to hair (natural and artificial). The study of anatomical structures affected by cosmetology services including disorders of the skin, scalp, hair, and nails. Pre-requisite: Successful completion of COS 114 or COS 108 & COS 109. Lecture: 5 credit hours (75 contact hours).
Components: Lecture
Attributes: Technical

COS 119(7) Course ID:017168
Cosmetology II Practical Application
Apply the chemical application techniques to skin, hair (natural and artificial) and nails. Pre-requisite: Successful completion of COS 114 or COS 108 & COS 109. Lecture: 7 credit hours (315 contact hours).
Components: Laboratory
Attributes: Technical

COS 135(1 - 8) Course ID:001223
Instructor Consent Required
Individual Requirements I
Provides additional lecture/laboratory time to meet licensure requirements of 1800 hour 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

COS 136(13) Course ID:017367
Esthetics I
Covers the history of esthetics, today's career opportunities, and professional image. Includes Kentucky Statutes and Regulations, analysis of skin types for facial products, massage techniques, and hair removal. Provides guidelines that prevent the contamination of products, implements, and equipment for the prevention of disease. Includes the study of structure, composition, and function of the skin. Lecture: 7 credits (105 contact hours). Laboratory: 6 credits (270 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

COS 138(8) Course ID:017564
Salon Assistant I
Provides knowledge and the techniques of all blow-drying services including any of the following services performed on an individual's hair: Arranging, cleaning, cutting dressing, blow-drying and performing any other similar procedures. Lecture: 6 credits (90 contact hours). Laboratory: 2 credits (120 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

COS 139(9) Course ID:017565
Salon Assistant II
Provides knowledge and the techniques of all blow-drying services including any of the following services performed on an individual's hair: Arranging, cleaning, cutting dressing, blow-drying and performing any other similar procedures. Lecture: 6 credits (90 contact hours). Laboratory: 3 credits (180 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

COS 146(13) Course ID:017368
Esthetics II
Expands organic/inorganic chemistry and cosmetic ingredients. Focuses on facial treatments including peels, deep pore cleansing, clinical skin care, aroma therapy, and spa/body treatments. Includes knowledge of the art and science of nail technology. Covers the study of the cells, and structure of the hand and arm. Recognizes the structure of the nail and their diseases and disorders. Demonstrates the study of beauty salon management including the practice of interacting with clients, co-workers, and supervisors. Students practice on classmates and progress to work on clients.) Lecture: 8 credits (120 contact hours). Laboratory: 8 credits (360 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

COS 147(16) Course ID:017563
Nail Technology
Provides knowledge of the art and science of nail technology. Applies the rules and regulations of the Kentucky Board of Cosmetology as it should be used in the salon. Introduces bacteriology and infection control through the practice of disinfection procedures. Teaches the study of the cells, and structure of the hand and arm. Recognizes the structure of the nail and their diseases and disorders. Students practice on classmates and progress to work on clients.) Lecture: 8 credits (120 contact hours). Laboratory: 8 credits (360 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

COS 170(17) Course ID:017562
Accelerated Student Teaching
Introduces and expands teaching methods used in training cosmetology, esthetics, and nail technology students. Demonstrates teaching methods of theory, media use, and testing methods. Develops and applies the methods used to teach the practical application of skills. Demonstrates the Kentucky Board of Cosmetology rules and regulations. Provides preparatory work to prepare the apprentice instructor for the Kentucky Board of Cosmetology instructor's examination. Pre-requisite: Cosmetologist's license, one year work experience, and Apprentice Cosmetologists' Instructor's License. Lecture: 8 credits (120 contact hours). Laboratory: 4 credits (180 contact hours). Practicum: 5 credits (450 contact hours).
Components: Laboratory, Lecture, Practicum
Attributes: Technical

COS 218(20) Course ID:015567
Teaching I
Introduces teaching methods used in training cosmetology, esthetics, and nail technology students. Demonstrates teaching methods of theory, media use, and testing methods. Develops and applies the methods used to teach the practical application of skills. Pre-requisite: Cosmetologist's License, one year work experience, and Apprentice Cosmetologists Instructor's License. Lecture: 6.0 credits (90 contact hours). Lab: 14.0 credits (420 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
COS 217(20) Course ID:015568
Teaching II
Expands teaching methods used in training cosmetology, esthetics, and nail technology students. Demonstrates advanced teaching methods of theory, media use, and testing methods. Develops and applies methods used to teach the practical application of skills. Provides preparatory work to prepare the apprentice instructor for the Kentucky Board of Hairstylists and Cosmetologist's instructor examination. Pre-requisite: COS 216. Lecture: 6.0 credits (90 contact hours). Lab: 14.0 credits (420 contact hours). Components: Laboratory, Lecture Attributes: Technical

COS 218(14) Course ID:001215
Cosmetology III, 6-3
Provides knowledge of the structure and function of the human body, including the interaction of all the body systems in maintaining homeostasis. All phases of beauty salon management are studied, including interacting with clients, co-workers and supervisors. Laboratory experience is advanced with performance expectations set at a higher level. Lecture/Laboratory: 14 credits (450 contact hours). Components: Laboratory, Lecture Attributes: Technical

COS 220(12) Course ID:001216
Cosmetology IV, 6-4
This course is designed for a total review of the cosmetology curriculum. A comprehensive written and practical exam is given in preparation for the State Board Licensure exam. Students implement their own judgement of procedures and solutions to be used on clients with supervision. Lecture/Laboratory: 14 credits (450 contact hours). Components: Laboratory, Lecture Attributes: Technical

COS 222(6) Course ID:017092
Cosmetology Review
Designed as a total review of the Cosmetology curriculum. A comprehensive written and practical exam is given in preparation for the State Board Licensure exam. Students implement their own judgment of procedures and solutions to be used on clients with supervision. Pre-requisite: COS 114, 116, 218 or consent of instructor. Lecture: 4 credit hours (60 contact hours) Lab: 2 credit hours (90 contact hours). Components: Laboratory, Lecture Attributes: Technical

COS 228(5) Course ID:0017169
Cosmetology III Theory
Provides knowledge of the structure and function of the human body, including all the body systems. A concept of artificial hair, hair enhancements, braiding and extensions, electricity and light therapy and business skills are studied. Pre-requisite: Successful completion of COS 116 or COS 118 & COS 119. Lecture: 5 credit hours (75 contact hours). Components: Lecture Attributes: Technical

COS 229(7) Course ID:017170
Cosmetology III Practical Application
Illustrate laboratory experiences with advanced performance expectations, including interacting with clients, co-workers and supervisors. The application of general anatomy is applied in laboratory settings and the techniques of all areas relating to salon business skills. Pre-requisite: Successful completion of COS 116 or COS 118 & COS 119. Co-requisite: COS 229. Laboratory: 7 contact hours (315 contact hours). Components: Laboratory Attributes: Technical

COS 235(1 - 8) Course ID:004413
Instructor Consent Required Individual Requirements II
Provides additional lecture/laboratory time to meet licensure requirements of 1800 clock hours. Pre-requisite: Consent of Instructor. Lecture/Lab: 1.0 - 8.0 credit hours (15 - 120 contact hours). Components: Laboratory, Lecture Attributes: Technical

COS 238(6) Course ID:017171
Cosmetology IV Theory
Recall the comprehensive written exam in preparation for the Kentucky Board Licensure exam. Pre-requisite: Successful completion of COS 218 or COS 228 & COS 229. Lecture: 6 credit hours (90 contact hours). Components: Lecture Attributes: Technical

COS 239(6) Course ID:017172
Cosmetology IV Practical Application
Demonstrate the comprehensive practical exam in preparation for Kentucky Board Licensure exam. Pre-requisite: Successful completion of COS 218 or COS 228 & COS 229. Co-requisite: COS 238. Laboratory: 6 credit hours (270 contact hours). Components: Laboratory Attributes: Technical

COS 1141(3) Course ID:004994
Introduction to Cosmetology
An introduction to professionalism and communication. Topics include Kentucky Statutes and Regulations, safety and decontamination. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (90 contact hours). Components: Lecture

COS 1142(3) Course ID:004995
Basics of Cosmetology
Provides fundamental principles and skills of manicures, pedicures, facials, and scalp and hair care. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (90 contact hours). Components: Lecture

COS 1143(3) Course ID:004996
Principles of Hair Design
Provides design elements and principles of hairstyling. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (90 contact hours). Components: Laboratory, Lecture

COS 1144(1) Course ID:004997
Cosmetology Skills A
Focus on developing design elements of hair. Laboratory: 1 credit (45 contact hours). Components: Laboratory

COS 1145(1) Course ID:004998
Hair Structure, Disorders and Diseases
Focuses on the structure, diseases, and disorders of hair. Lecture: 1 credit (15 contact hours). Components: Lecture

COS 1146(1) Course ID:004999
Cosmetology Skills B
Provides basic principles of hair design and safety. Laboratory: 1 credit (45 contact hours). Components: Laboratory

COS 1147(1) Course ID:005000
Nail Structure: Diseases and Disorders
Focuses on nail structure, diseases and disorders. Lecture: 1 credit (15 contact hours). Components: Lecture

COS 1148(1) Course ID:005001
Skin: Structure, Disorders and Diseases
Focuses on skin structure, diseases and disorders. Lecture: 1 credit (15 contact hours). Components: Lecture

COS 1161(3) Course ID:005002
Introduction to Cosmetic Chemistry
Basic study of cosmetic chemistry. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (90 contact hours). Components: Laboratory, Lecture

COS 1162(3) Course ID:005003
Chemical Services
Basic chemical services. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (90 contact hours). Components: Laboratory, Lecture

COS 1163(3) Course ID:005004
Massage Techniques
Study of massage techniques. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (90 contact hours). Components: Laboratory, Lecture

COS 1164(1) Course ID:005005
Cosmetic Techniques Lab
Provides an opportunity to apply chemical services. Focuses on perms, color application and straightening of hair. Laboratory: 1 credit (45 contact hours). Components: Laboratory

COS 1165(1) Course ID:005006
Electricity & Light Therapy for Cosmetology
Study of electricity and light therapy. Lecture: 1 credit (15 contact hours). Components: Lecture

COS 1166(1) Course ID:005007
Intermediate Hair Design Lab
Continues the application of hair design theory and skills. Laboratory: 1 credit (45 contact hours). Components: Laboratory

COS 1167(1) Course ID:005008
Facials
Theory of facials. Lecture: 1 credit (15 contact hours). Components: Lecture

COS 1168(1) Course ID:005009
Makeup and Hair Removal
Provides the theoretical 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. Lecture: 1 credit (15 contact hours).

Components: Lecture Attributes: Technical

CRA Building Controls Tech

CRA 230(5) Course ID:016091
Building Controls I
Develops techniques for servicing, troubleshooting, and performing necessary maintenance on modern building control system devices. Emphasizes electrical and mechanical safety. Covers equipment used in building control systems. Pre-requisite: ACR 100 and (ACR 102 or comparable electrical course) and 10 semester credit hours of Building Controls Technician technical electives or consent of instructor. Lecture/Lab: 5.0 credits (105 contact hours)

Components: Lecture Attributes: Technical

CRA 232(5) Course ID:016092
Building Controls II
Develops techniques for configuring, tuning and troubleshooting a networked building control system. Covers networked field equipment and central computer-controlled building control systems. Pre-requisite: CRA 230 or content of instructor. Lecture/Lab: 5.0 credits (105 contact hours).

Components: Lecture Attributes: Technical

CRI Criminal Justice

CRI 100(3) Course ID:004191
Introduction to Criminal Justice
Provides an introduction to the philosophical and historical background of agencies of the criminal justice systems, processes, purposes and functions. Includes an evaluation of the criminal justice system today, including trends and career orientation. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

CRI 102(3) Course ID:004192
Introduction to Corrections
Provides an introduction to the development of correctional systems, and the processes, procedures, and issues of current correctional systems, both juvenile and adult. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

CRI 107(1) Course ID:004194
Introduction to Firearms
Provides a working knowledge of the use, care, and safety of firearms. The course is of nomenclature design and it will be at the discretion of each individual college whether live ammunition will be utilized by the students and faculty to demonstrate the firing of weapons and marksmanship practice. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 1.0 credit (15 contact hours).

Components: Lecture Attributes: Technical

CRI 108(4) Course ID:007357
Advanced Firearms and Less Than Lethal Weapons
Provides an advanced working knowledge of the use, care, safety, and legal application of firearms and less than lethal weapons. Includes live fire with the use of pistol, shotgun, rifle, and less than lethal weapons. Pre-requisite: CRJ 107 and (Current placement scores for RDG 030 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (69 contact hours).

Components: Laboratory, Lecture Attributes: Technical

CRI 110(3) Course ID:004195
Principles of Asset Protection
Provides an introductory understanding of private security procedures. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

CRI 201(3) Course ID:000899
Introduction to Criminalistics
Provides a basic knowledge of crime scene protection, collection, preservation, and identification of evidence, including proper search, dusting latent prints, casting fingerprint classification, and use of crime laboratory in crime detection and prosecution. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

CRI 202(3) Course ID:004196
Issues and Ethics in Criminal Justice
Provides an understanding of the issues and ethical dilemmas confronting practitioners within the criminal justice system. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

CRI 203(3) Course ID:004197
Community Corrections: Probations & Parole
Provides an in-depth study of the history and current processes and procedures of probation, parole, and intermediate sanctions that makes up community corrections. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

CRI 204(3) Course ID:004198
Criminal Investigations
Provides the fundamentals of crime scene investigations, which includes searching and recording of the scene, collection and preservation of physical evidence, interviews and interrogation of victims, witnesses, and suspects, report writing and care preparation. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

CRI 208(3) Course ID:004199
Delinquency and the Juvenile Justice System
Provides an introduction of the origins and theories associated with juvenile delinquency, and a comprehensive analysis of environmental issues that influence delinquency, plus a thorough overview of the juvenile justice system processes. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

CRI 211(3) Course ID:004201
Liability & Legal Issues
Provides an overview of legal aspects of security, which includes but is not limited to civil and criminal law, liability of asset protection, use of force, false imprisonment, negligent security, and invasion of privacy. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090) and (CRJ 100 or Consent of Instructor). Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

CRI 213(3) Course ID:004202
Introduction to Law Enforcement
Provides an introduction to the study of law enforcement. Introduces the historical developments of law enforcement, police operations and programs. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

CRI 216(3) Course ID:004203
Criminal Law
Provides an overview of the definitions and functional components of criminal law in the field of criminal justice. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

CRI 217(3) Course ID:004204
Criminal Procedures
Provides an overview of the different criminal procedural laws by examining the specific Amendments that outline the guidelines of the administration of substantive laws. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).

Components: Lecture Same As Offering: CRI 217 Attributes: Technical

CRI 217(3) Course ID:004205
Criminal Procedures
Provides an overview of the different criminal procedural laws by examining the specific Amendments that outline the guidelines of the administration of substantive laws. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).

Components: Lecture Same As Offering: CRI 217 Attributes: Technical
CRJ 218(3) Course ID:004193
Police Supervision
Provides an overview of the administrative, supervisory, and leadership roles that are required within a law enforcement agency. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090) AND CRJ 100 or CRJ 215 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CRJ 219(4) Course ID:007358
Police Recruit Defensive Tactics
Provides the proper methods of police defensive tactics, emphasizes necessary skills, and establishes an understanding of use of force policies and legal implications. Pre-requisite: CRJ 215 and (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090) and CRJ 100 or CRJ 215 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

CRJ 220(3) Course ID:005220
Introduction to Computer Forensics for Criminal Justice
Introduces the study of cybercrime with an emphasis on planning, detection, and response with the goals of countering and overcoming hacker attacks and computer-related offenses. Malicious activities will be logged and forensic tools will be used to gather court-admissible evidence. Pre-requisite: Completion of an approved Computer Literacy Course with a grade of C or greater, or computer literacy demonstrated by competency exam; AND (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CRJ 222(3) Course ID:004205
Prison & Jail Administration
Introduces the correctional procedures and administration of jails and prisons by focusing on historical and current perspectives of penology, administrative responsibilities of correctional leaders, and correctional staff responsibilities. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CRJ 224(4) Course ID:007359
Basic Traffic Collision Investigation
Introduces basic vehicle collision investigation, from a law enforcement perspective, and entails evidence and investigation techniques and mathematical calculations. Pre-requisite: CRJ 204 and MAT 110 and (Current placement scores for RDG 030 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

CRJ 225(4) Course ID:007360
Driving and Traffic Enforcement for Law Enforcement
Provides an understanding of vehicle offenses, tactical police driving, and traffic stops, in a scenario-based environment that demonstrates applied skills. Pre-requisite: CRJ 215 and (Current placement scores for RDG 030 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

CRJ 228(3) Course ID:017566
Unmanned CRI Technology Applications
Examines the use of advanced technologies used in the field of criminal justice. Discusses constitutional considerations and ethical issues related to the use of advanced technologies. Explore use of new technologies in the areas of crime scene reconstruction, use of force, criminal investigation, tactical responses, surveillance, search and rescue, and security. Discuss the use of drones, robotics, and video equipment as key technologies that are changing criminal justice practice. Lecture: 3 credits (45 contact hours).

Components: 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 of ENC 090). Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CRJ 235(3) Course ID:017567
Serial Killers
Examines serial, mass, and spree killing. Explores the process of investigating serial killing. Discusses the elements of serial killing and the individual characteristics of serial killers. Examines case studies to illustrate the components of serial killing characteristics and the psychological and sociological foundations of serial killing. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CRJ 240(3) Course ID:006102
Introduction to Corporate & Industrial Security
Includes research, study, and discussion of current and emerging topics, issues, and trends in corporate and industrial security. Covers basic corporate and industrial security procedures and the roles of the key personnel within the private security arena. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CRJ 245(3) Course ID:006232
Introduction to Business and Industrial Fraud
Includes research, study, and discussion of current and emerging topics, issues and trends in business and industrial fraud. Covers basic concepts of occupational fraud and abuse and the roles of the key personnel within the criminal justice system. Includes practical procedures for detecting, 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 255(3) Course ID:017568
Correctional Intervention Strategies
Examines current correctional intervention strategies. Discuss the development of evidence-based programs based on decades of correctional research. Explore mental health disorders, substance abuse, and personality disorders, and also the best strategies for working with individuals with these issues. Discuss the principles of effective intervention, as well as foundational theoretical ideas in the context of creating successful correctional programming. Explore the elements of classification and treatment modalities as they relate to risk, need, and responsivity. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CRJ 271(3) Course ID:006804
Introduction to Criminology
Provides an introduction to the understanding of criminal behavior by focusing on crime trends and patterns, the amount of crime, and the theories of crime. Theories of crime will include the biological, psychological, sociological, and integrated explanations of behavior. Theories of crime will be utilized to address the procedures and administration of criminal justice in society. Pre-requisite: If yes, list: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CRJ 278(3) Course ID:017569
Victimology
Examines characteristics of crime victims, different perspectives of victimology, and theories of victimization. Discuss the historical development of victimization and victims' rights movement and also the societal impacts of victim concern on social policy and practice in the criminal justice system. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CRJ 279(3) Course ID:008578
Terrorism and Political Violence
Provides an introduction to the study of terrorism and terrorist organizations. Introduces the student to the diverse definitions of terrorism and the social and political consequences of varying definitions, behavioral aspects of terrorist and the various justifications for terrorist activities. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CRJ 280(3) Course ID:017570
Drugs, Crime, and Society
Examines drug use, addiction, treatment, and trafficking. Explore the connection between drug use and other types of crime. Review drug control policies, including the impact of the media and politics. Lecture: 3 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 work. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical
CRT 295(1) Course ID:001650
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

CRT 296(2) Course ID:001669
Criminal Psychology
Provides a basic understanding of the psychological theories explaining criminal behavior. Includes topics regarding the effects of the brain’s structural and functional processes on behavior, evidence-based psychological techniques for treating criminal behavior, behavioral profiling, basic overview of common mental health problems, ways of recognizing mental health issues when dealing with offenders, and proven psychological techniques for calming problem situations thereby creating a safer and more efficient solution. Pre-requisite: CRJ 100, PSY 110. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CRT 299(1 - 3) Course ID:004207
Instructor Consent Required
Selected Topics in Criminal Justice
Introduces specialized topics in the field of criminal justice to meet current trends and investigations of contemporary topics in the discipline. The topics of the course and the number of credit hours determined are at the discretion of the instructor and college providing the course. This course may be repeated to a maximum of 6 credit hours. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 1.0 - 3.0 credits (15 - 45 contact hours).
Components: Lecture Attributes: Technical

CRT 100(2) Course ID:000928
Introduction to Collision Repair
Introduces the student to safely, sanding, grinding, pulling, roughing and filling; the use of tools and equipment; and preparing and painting 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, hoods, and fenders; as well as instruction on the repair and replacement of non-structural weld-on automotive panels by aligning, welding, cutting and drilling through demonstrations and lectures. Includes instruction on how to repair plastic, fiberglass, SMC and flexible automobile parts. Lecture: 6.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CRT 131(6) Course ID:002345
Non-Structural Analysis and Damage Repair Lab
Provides practical experience in the replacement and alignment of bolts of automotive parts such as doors, hoods, and fenders; as well as instruction on the repair and replacement of non-structural weld-on automotive panels by aligning, welding, cutting and drilling. Includes instruction on how to repair plastic, fiberglass, SMC and flexible automobile parts. Requires skills that are most effectively taught and practiced on live work; the exact content will be influenced by the live work available. Pre-requisite Or Co-requisite: CRT 130. Lab: 6.0 credits (180 - 270 contact hours).
Components: Laboratory Attributes: Technical

CRT 150(6) Course ID:000931
Painting and Refinishing
Provides instruction in the use of lacquer, acrylic enamel and base coat/clear coat refinishing products, masking procedures, preparations and paint problems. Lecture: 6.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CRT 151(6) Course ID:000932
Painting and Refinishing Lab
Provides instruction in the use of lacquer, acrylic enamel and base coat/clear coat refinishing products, masking procedures, preparations and paint problems. The auto and/or autos being used for live work will determine exact content.) Pre-requisite Or Co-requisite: CRT 150. Lab: 6.0 credits (180 -270 contact hours).
Components: Laboratory Attributes: Technical

CRT 188(1 - 8) Course ID:000934
Instructor Consent Required
Practicum
Provides supervised on-the-job work experience related to the students’ education 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 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, 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’ education 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

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:007199
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: CS215. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: University Course (University of Kentucky)
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 and CUL 125 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 chocolate, frozen desserts, and creams, custards, and related sauces. Emphasis will be placed on nutrional 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 215. Lecture: 2 credits (30 contact hours), Laboratory: 2 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

CUL 230(3) Course ID:004216
Basic Nutrition
Describes the characteristics, functions, and food sources of the major nutrments 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 235(4) Course ID:017086
Farm to Table
Introduces local, seasonal, and sustainable cooking emphasized through the management of fruit, grain, and vegetable production while applying various cooking techniques. Utilize fresh ingredients in the preparation of appetizers, salads, entrees, and desserts. Incorporates canning and preserving methods for when fresh ingredients are out of season. Pre-requisite: CUL 100, CUL 125, CUL 211, CUL 215, OR Instructor Approval. Lecture: 2 credit hours (30 contact hours), Lab: 2 credit hours (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

CUL 240(4) Course ID:004217
Meats, Seafood, & Poultry
This course focuses on the identification of various cooking techniques for and the preparation of meats, seafood, and poultry. Pre-requisite: CUL 100 and CUL 125. Pre-requisite or Co-requisite: CUL 211 or consent of the instructor. Lecture/Lab: 4.0 credits (90 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

CUL 250(4) Course ID:004211
Garde Manger
This course includes the production of hot and cold sandwiches, hors d’oeuvre, canapés and salads. Garnishing techniques along with cold food production are discussed. Decorative skills as related to buffets and exhibits are explored. Pre-requisite: CUL 211 AND CUL 215 OR Consent of instructor. Lecture/Lab: 4 credits (90 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

CUL 260(4) Course ID:004218
International & Classical Cuisine
This course focuses on the study and preparation of international and classical cuisine. Pre-requisite: CUL 100 and CUL 125. Co-requisite: CUL 211, CUL 215 and CUL 240 or consent of instructor. Lecture/Lab: 4.0 credits (90 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

CUL 260(3) Course ID:004221
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:004222
Cost and Control
Provides students with the opportunity to perform business and math skills using mathematical functions related to food service operations in the areas of cost, control, purchasing and receiving. Pre-requisite: A mathematics placement score above the score range for MAT 065 or successful completion of the prescribed developmental course(s) or consent of the instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CUL 285(3) Course ID:004223
Front of the House
Focuses on the operations in front of the house management including service techniques and dining room service, beverage service (non-alcoholic and alcoholic beverages), POS systems, and menu planning. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CUL 290(4) Course ID:004223
Front of the House-Catering
Focuses on the operations in front of the house management including service techniques and dining room service, beverage service (non-alcoholic and alcoholic beverages), POS systems, and menu planning. Pre-requisite: (CUL 211, CUL 215, and CUL 240) or Consent of Instructor. Lecture/Laboratory: 4.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

CUL 295(3) Course ID:005138
Doing Business as a Personal Chef
A general overview of the business aspects of starting and operating a personal chef service. Pre-requisite: All Technical Core Courses as outlined in the current Culinary Arts Curriculum. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CUL 297(1 - 6) Course ID:004224
Selected Topics in Culinary Arts
Various culinary arts topics, issues, and trends will be addressed. Topics may vary from semester to semester at the discretion of the instructors; courses may be repeated with different topics to a maximum of six credits. Lecture: varies by topic, Lab: varies by topic. Pre-requisite: Consent of instructor.
Components: Laboratory, Lecture
Attributes: Technical

CUL 298(2 - 3) Course ID:004225
Culinary Arts Practicum Experience
Practicum enhances the student’s transition from class to the world of work by providing unpaid work experience in a simulated or on-campus setting that utilizes the skills required to achieve the student’s occupational goal. Pre-requisite: Consent of Instructor. Practicum: 2.0 - 3.0 credits (120-180 contact hours).
Components: Practicum
Attributes: Technical
CUL 299(2 - 3) Course ID:004226
Culinary Arts Cooperative Education Experience
Enhances the student's transition from class to the workforce by providing a paid work experience in a setting that utilizes the skills required to achieve the student's occupational goal. Pre-requisite: Consent of instructor. Practicum: 2.0 -3.0 credits (120 - 180 contact hours).
Components: Practicum
Attributes: Technical

CUL 1001(1) Course ID:016347
Culinary Industry Trends
Provides an introduction to several aspects of the food industry. Includes an overview of the history of the profession and current career opportunities and trends. Lecture: 1 credit (15 contact hours).
Components: Lecture

CUL 1002(1) Course ID:016348
Culinary Arts Terminology
Provides an introduction to several aspects of the food industry. Introduces proper terminology for various types of equipment and cooking methods. Pre-requisite: CUL 1001.
Lecture: 1 credit (15 contact hours).
Components: Lecture

CUL 1251(1) Course ID: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 food service 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: CUL 2801.
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: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DAH 124(2) Course ID:000335
Materials in Dentistry
Examines the physical and chemical properties of dental materials with an emphasis on composition and application.
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:004337
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 DAH 130;
Dental Hygiene: Minimum grade of “C” in DAH 101, DAH 121, DAH 124, DAH 135, and DHG 120.
Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DAH 135(2) Course ID:000334
Oral Radiology
Examines theory and clinical practice of oral radiographic methods. Presents history and development of x- radiation; properties and uses of x-radiation; radiation hygiene; exposing, processing and mounting of intraoral and extraoral films; and identification of radiographic anatomic landmarks.
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 124, DAH 135, DAH 125 and DAH 130;
Dental Hygiene: Minimum grade of “C” in DHG 220 and DHG 226.
Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical

CUL 289(2 - 3) Course ID:004226
Culinary Arts Cooperative Education Experience
Enhances the student's transition from class to the workforce by providing a paid work experience in a setting that utilizes the skills required to achieve the student's occupational goal. Pre-requisite: Consent of instructor. Practicum: 2.0 -3.0 credits (120 - 180 contact hours).
Components: Practicum
Attributes: Technical

DAS 125(6) Course ID:015651
Dental Assisting I
Introduces the profession of dental assisting, history of dentistry, chairside dental assisting, dental equipment, operative dentistry and dental specialties. Emphasizes essential dental assisting skills to prepare the student for clinical setting. Pre-requisite: Admission into the Dental Assisting Integrated program.
Lecture: 2.0 (30 contact hours). Lab: 4.0 credits (120 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DAS 130(2) Course ID:006812
Seminar I
Emphasizes leadership, management, clinical decision-making, judgment skills and professional values to facilitate the transition of the student to a professional dental assistant. Provides the opportunity for the application of critical thinking skills in the care of a diverse patient population in the dental setting. Pre-requisite: Admission into the Dental Assisting Integrated program.
Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DAS 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, DAH 125, and DAH 130.
Lecture: 1.0 credit (15 contact hours). Lab: 0.5 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, DAH 125, and DAH 130.
Lecture: 1.0 credit hour (15 contact hours)
Components: Lecture
Attributes: Technical

DAS 245(2) Course ID:015653
Preventive Dentistry
Introduces dental biofilm and its role in dental disease. Emphasizes the role nutrition plays regarding disease initiation and progression and the methods and preventive agents utilized by the auxiliary to prevent oral disease.
Pre-requisite: Dental Assisting: Minimum grade of C in DAH 101, DAH 121, DAH 124, DAH 135, DAH 125, and DAH 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, DAH 125, and DAS 130. Practicum: 5.0 credits (320 contact hours).
Components: Practicum
Attributes: Technical
DHG Dental Hygiene

DHG 120(3)  Course ID:000337
Pre-Clinical Dental Hygiene
Stresses basic assessment and clinical skills, related theory, and professional role and responsibilities of the dental hygienist as a member of the dental health team. Pre-requisite: Admission into the Dental Hygiene Integrated Program. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (120 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DHG 130(3)  Course ID:000338
Clinical Dental Hygiene I
Focuses on preparing the student to provide patient treatment that includes preventive and therapeutic procedures to maintain oral health and assist the patient in achieving oral health goals. Pre-requisite: Minimum grade of C in DAH 101, DAH 121, DAH 124, DAH 135, and DHG 120. Lecture: 1.5 credits (22.5 contact hours). Lab: 0.5 credits (60 contact hours). Clinical: 1.0 credit (120 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Technical

DHG 132(2)  Course ID:004331
Pharmacology
Examines the disciplines of pharmacology and therapeutics as related to dental hygiene. Pre-requisite: Minimum grade of C in DAH 101, DAH 121, DAH 124, DAH 135, and DHG 120. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

DHG 134(2)  Course ID:008611
Dental Nutrition
Presents basic principles of nutrition with emphasis on nutritional counseling in relationship to dental health, determination of patient nutritional status, and application to oral health and effects of nutritional deficiencies. Pre-requisite: Minimum grade of C in DAH 101, DAH 121, DAH 124, DAH 135, and DHG 120. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

DHG 136(1)  Course ID:000340
Periodontology
Focuses on the clinical, histological, and radiographic differences between healthy and unhealthy periodontal tissues. Pre-requisite: Minimum grade of C in DAH 101, DAH 121, DAH 124, DAH 135, and DHG 120. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical

DHG 220(4)  Course ID:000341
Clinical Dental Hygiene II
Focuses on providing comprehensive dental hygiene care in a clinical setting while emphasizing the treatment of periodontal and special needs patients. Pre-requisite: Minimum grade of C in DAH 131, DHG 130, DHG 132, DHG 134, and DHG 136. Lecture: 2.0 credits (30 contact hours). Clinical: 2.0 credits (240 contact hours).
Components: Lecture
Attributes: Technical

DHG 221(2)  Course ID:004778
Local Anesthesia and Nitrous Oxide Sedation
Presents a conceptual framework and clinical skills necessary to administer local dental anesthetics and nitrous oxide sedation in accordance with state dental practice acts. Pre-requisite: Minimum grade of C in DAH 131, DHG 130, DHG 132, DHG 134, DHG 136, and current enrollment in the Dental Hygiene Integrated Program. Lecture: 1.25 credit (19 contact hours). Lab: 0.75 credit (26 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DHG 226(2)  Course ID:000342
Advanced Periodontology
Focuses on the role of the dental hygienist in the prevention, diagnosis and treatment of periodontal diseases. Pre-requisite: Minimum grade of C in DAH 131, DHG 130, DHG 132, DHG 134, and DHG 136. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

DHG 228(1)  Course ID:001767
Evidence-Based Practice for the Dental Hygienist
Focuses on scientific methods in the problem-solving process utilized for making evidence-based decisions pertaining to the delivery of dental care. Pre-requisite: Minimum grade of C in DHG 130, DHG 132, DHG 134, DHG 136, and current enrollment in the Dental Hygiene Integrated Program. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Technical

DHG 230(3)  Course ID:000343
Clinical Dental Hygiene III
Focuses on mastery of dental hygiene clinical skills for patient care and preparation for written and clinical board examinations. Pre-requisite: Minimum grade of C in DHG 220 and DHG 226. Lecture: 1.0 credit (15 contact hours). Clinical: 2.0 credits (240 contact hours).
Components: Clinical, Lecture
Attributes: Technical

DHG 238(2)  Course ID:000344
Community Dental Health Issues
Examines basic concepts in assessing community dental health needs and planning, implementing, evaluating, and presenting dental health programs to various community groups. Pre-requisite: Minimum grade of C in DHG 220 and DHG 226. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

DHP Dental Hygiene

DHP 120(4)  Course ID:004859
Dental Hygiene I
Includes basic assessment and clinical skills, related theory, professional role and responsibilities of the dental hygienist as a member of the dental health team. Pre-requisite: Acceptance into the Dental Hygiene Program; Computer Literacy or equivalency; and CPR certification. BI0 137 and BI0 139 or equivalent, with a grade of "C" or better. Lecture: 2.0 credits (30 contact hours). Clinical: 1.5 hours (180 contact hours).
Components: Clinical, Lecture
Attributes: Technical

DHP 122(2)  Course ID:006832
Dental Nutrition
Presents basic principles of nutrition with emphasis on nutritional counseling in relationship to dental health, determination of patient nutritional status, and application to oral health and effects of nutritional deficiencies. Pre-requisite: Acceptance into the Dental Hygiene Program; Computer Literacy or equivalency; and CPR certification. BI0 137 and BI0 139 or equivalent, with a grade of "C" or better. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

DHP 123(2)  Course ID:017369
Oral Biology
Focuses on oral histology and embryology, head and neck anatomy, and dental morphology applicable to the practice of dental hygiene. Pre-requisite: Acceptance into Dental Hygiene Program; digital literacy is defined by KCTCS or equivalent; and CPR certification. BI0 137 and BI0 139 or equivalent, both with a minimum grade of C. Integrated Lecture: 1 credit (15 contact hours). Integrated Lab: 1 credit (45 contact hours).
Components: Integrated Laboratory, Integrated Lecture
Attributes: Technical

DHP 124(2)  Course ID:017370
Materials in Dentistry
Examines the physical and chemical properties of dental materials with an emphasis on composition and application. Pre-requisite: Acceptance into the Dental Hygiene Program; digital literacy as defined by KCTCS or equivalent; and CPR certification. BI0 137 and BI0 139 or equivalent, both with a minimum grade of C. Lecture: 1.5 credits (22.5 contact hours). Laboratory: 0.5 credits (22.5 contact hours).
Components: Clinical, Lecture
Attributes: Technical

DHP 130(3)  Course ID:004861
Dental Hygiene II
Focuses on preparing the student to provide patient treatment that includes preventive and therapeutic procedures to maintain oral health and assist the patient in achieving oral health goals. Pre-requisite: DHP 120, DHP 122, DHP 123, DHP 124 and (BI0 225 or BI0 226, or equivalent) all with a minimum grade of C. Lecture: 2.0 credits (30 contact hours). Clinical: 1.0 credit (120 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Technical

DHP 132(4)  Course ID:017371
Oral Pathology and Pharmacology
Covers the disciplines of general pathology, oral pathology, pharmacology, and therapeutics as related to dental hygiene care. Pre-requisite: DHP 120, DHP 122, DHP 123, DHP 124 and (BI0 225 or BI0 226, or equivalent) all with a minimum grade of C. Integrated Lecture: 2.5 credits (37.5 contact hours). Integrated Lab: 1.5 credits (67.5 contact hours).
Components: Integrated Laboratory, Integrated Lecture
Attributes: Technical

DHP 133(3)  Course ID:004863
Dental Radiology
Introduces theory and clinical practice of oral radiography. Presents the history, development, properties and uses of x-radiation. Emphasizes radiation hygiene and safety. Covers digital technology and all types of radiographic systems. Introduces radiographic anatomical landmarks and pathology seen on radiographs. Pre-requisite: DHP 120, DHP 122, DHP 123, DHP 124, and (BI0 225 or BI0 226, or equivalent) all with a minimum grade of C. Lecture: 2.5 credits (37.5 contact hours). Laboratory: 0.5 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DHP 136(2)  Course ID:004864
Periodontics I
Introduces the clinical, histological, and radiographic differences between healthy and unhealthy periodontal tissues. Emphasizes etiology, risk factor assessment, pathogenesis, and classification of periodontal diseases. Pre-requisite: DHP 120, DHP 122, DHP 123, DHP 124, and (BI0 225 or BI0 226, or equivalent) all with a minimum grade of C. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

DHP 220(3)  Course ID:000485
Dental Hygiene III
Focuses on the specific oral health care needs of persons with a variety of medical, disabling or mental conditions and provides for discussion of innovative approaches to serving populations with special oral health care needs. Emphasizes special pharmacological considerations and treatment modifications. Pre-requisite: DHP 130, DHP 132, DHP 135, and DHP 136 all with a minimum grade of C. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DHP 222(3)  Course ID:005040
Special Needs Patients
Focuses on the special dental health care needs of persons with special needs and emphasizes appropriate changes in dental treatment in response to a patient's medical condition. Pre-requisite: DHP 130, DHP 132, DHP 135 and DHP 136 all with a minimum grade of C. Lecture: 2.0 credits (240 contact hours). Discussion: 1.0 credit (15 contact hours).
Components: Clinical, Discussion
Attributes: Technical

DHP 223(3)  Course ID:005040
Special Needs Patients
Focuses on the special dental health care needs of persons with special needs and emphasizes appropriate changes in dental treatment in response to a patient's medical condition. Pre-requisite: DHP 130, DHP 132, DHP 135 and DHP 136 all with a minimum grade of C. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
DIT 226(2) Course ID:004867
Periodontics II
Emphasizes the role of the dental hygienist in the identification and treatment of periodontal diseases. Focuses on non-surgical interventions and current surgical therapies in dentistry. Introduces implant management, advanced instrumentation and the dental laser. Pre-requisite: DHP 130, DHP 132, DHP 135 and DHP 136 all with a minimum grade of C. Lecture: 1.5 credits (22.5 contact hours), Laboratory: 0.5 credit (30 contact hours). Components: Laboratory, Lecture Attributes: Technical

DHP 229(2) Course ID:004850
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 Kentucky state dental practice act. Pre-requisite: DHP 130, DHP 132, DHP 135 and DHP 136 all with a minimum grade of C. Lecture: 1.25 credits (18.75 contact hours). Lab: 0.75 credit (45 contact hours).
Components: Laboratory, Lecture Attributes: Technical

DIT 230(3) Course ID:004868
Dental Hygiene IV
Focuses on mastery of all dental hygiene clinical skills utilized in treating all types of patients. Pre-requisite: DHP 220, DHP 222, DHP 226, and DHP 229 all with a minimum grade of C. Lecture: 2 credits (240 contact hours). Discussion: 1.0 credit (15 contact hours).
Components: Clinical, Discussion Attributes: Technical

DIT 235(1) Course ID:004869
Principles of Practice
Emphasizes the legal, ethical, and managerial aspects of dental hygiene practice. Pre-requisite: DHP 220, DHP 222, DHP 226, and DHP 229 all with a minimum grade of C. Lecture: 1.0 credit (15 contact hours).
Components: Lecture Attributes: Technical

DIT 238(3) Course ID:004870
Community Dental Health
Examines the assessment, planning, implementation and evaluation of community oral health needs. Focuses on reading and interpreting evidence-based literature. Relates current trends and best practices in oral health education. Emphasizes the presentation of dental health programs and educational research projects to community groups. Pre-requisite: DHP 220, DHP 222, DHP 226 and DHP 229 all with a minimum grade of C. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

DIT 299(1 - 4) Course ID:004851
Instructor Consent Required
Independent Study in Dental Hygiene
Consists of a special project or experience, approved by an instructor, provides an objective for independent study for dental hygiene technology students. This course may be repeated to a maximum of six credit hours. This is not a dental hygiene program requirement. Pre-requisite: Consent of instructor. Lecture: variable. Lab: Variable.
Components: Laboratory, Lecture Same As Offering: DHP 299 Attributes: Technical

DIT 103(2) Course ID:001273
Preventive Maintenance Lab
Instruction on preventive maintenance practices, scheduled procedures, documents, and D.O.T. required record system and on determining the needs for repair. Laboratory: 2.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

DIT 105(1) Course ID:006815
Mechanical Principles
Provides opportunities to practice hands on skills of measuring with precision measurement tools such as micrometers, dial indicator and caliper. This class also provides opportunities for the student to practice drilling and tapping. Proper rigging techniques are illustrated and practice to ensure that the student will know how to safely lift large and awkward items. Laboratory: 1.0 credit (45 contact hours).
Components: Laboratory Attributes: Technical

DIT 110(3) Course ID:001274
Introduction To Diesel Engines
Covers fundamental concepts of the operation of two- and four-stroke diesel and gasoline engines. Includes basic engine components and their functions, engine performance terminology, two- and four-stroke operation, combustion principles, and engine disassembly with basic hand tools. Co-requisite: DIT 111. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

DIT 111(2) Course ID:001275
Introduction To Diesel Engines Lab
Includes the hands-on concepts covered in DIT 110. Covers the inspection, diagnosis and repair strategies for the basic repair of internal combustion diesel engines. Co-requisite: DIT 110. Laboratory: 2 credits (90 contact hours).
Components: Lecture Attributes: Technical

DIT 112(3) Course ID:001276
Diesel Engine Repair
Includes how to take a disassembled engine and evaluate the condition of each component. Includes the identification and use or function of each component of the engine. Covers cylinder block and components, cylinder heads and valve train components, and engine lubrication systems. Pre-requisite: DIT 110 or ADX 150. Co-requisite: DIT 113. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

DIT 113(2) Course ID:001277
Diesel Engine Repair Lab
Includes the hands-on concepts covered in DIT 112. Covers the inspection, diagnosis and repair strategies of internal combustion late model diesel engines. Pre-requisite: DIT 111 or ADX 151. Co-requisite: DIT 112. Laboratory: 2 credits (30 contact hours).
Components: Laboratory Attributes: Technical

DIT 120(3) Course ID:001278
Introduction to Maintenance Welding
This course provides training in the identification, inspection and maintenance of welding electrodes. Training will be given in the principles and processes of welding plates and pipes. Instruction will be given in lab safety and basic oxy fuel cutting. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

DIT 121(3) Course ID:001279
Introduction to Maintenance Welding Lab
Provides laboratory experiences in which students acquire the manipulative skills needed to weld surface, fillet, and groove welds in flat and horizontal positions. The students will perform oxy fuel cutting operations. Lab: 3.0 credits (135 contact hours).
Components: Laboratory Attributes: Technical

DIT 122(3) Course ID:001280
Undercarriage
Students learn the theory and operation of undercarriage systems and their components. These components include endless track, roller track, roller frames, idlers, roller supports, and mainframes. Co-requisite: DIT 123. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

DIT 123(3) Course ID:001281
Undercarriage Lab
Provides opportunities to troubleshoot and repair some parts of undercarriage systems and their components. These components include endless track, roller track, roller frames, idlers, roller supports, and mainframes. Lab: 3.0 credits (135 contact hours).
Components: Laboratory Attributes: Technical

DIT 140(3) Course ID:001282
Hydraulics
Covers the theory and operation of a hydraulic system including pumps, filters, reservoirs, valves and actuators. Co-requisite: DIT 141. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

DIT 141(2) Course ID:001283
Hydraulics Lab
Includes the hands-on concepts covered in DIT 140. Covers the inspection, diagnosis and repair strategies of hydraulic systems. Co-requisite: DIT 140. Laboratory: 2 credits (90 contact hours).
Components: Laboratory Attributes: Technical

DIT 150(3) Course ID:001284
Power Trains
Covers the theory and operation of the power train systems on medium and heavy duty trucks. Covers the diagnosis and repair techniques of the power train system. Co-requisite: DIT 151. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

DIT 151(2) Course ID:001285
Power Trains Lab
Provides for practical application of concepts taught in DIT 150. Covers topics covered that will include clutches, transmission, and drive axles on medium and heavy duty trucks. Co-requisite: DIT 150. Laboratory: 2 credits (90 contact hours).
Components: Laboratory Attributes: Technical

DIT 152(3) Course ID:001286
Powertrain for Construction Equipment
Students learn the theory and principles of the operation of power transmissions. They learn to diagnose and repair power train units including torque connectors, standard and automatic transmissions. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

DIT 153(2) Course ID:001287
Powertrain for Construction Equipment Lab
Students troubleshoot, disassemble, evaluate parts and reassemble components of a power train system, such as torque connectors, standard and automatic transmissions, and drive lines. Laboratory: 2 credits (90 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
DLC 101(3)  Course ID:017020
Digital Literacy
Introduces the central components of digital literacy including computer operation for information gathering, communication, and living/working online. Presents how to use productivity software such as word processors, spreadsheets, databases, and presentation software. Exploration of the legal and ethical environment concerning computer technology. Addresses issues related to computers security, troubleshooting, and methods for enhancing work and life. Pre-requisite: RDG 20 OR Consent of Instructor. Lecture: 3 credit hours (45 contact hours).
Components: Lecture
Attributes: Technical

DLC 101(2)  Course ID:017021
Brakes
Provides hands on activities related to the concepts covered in DLC 101. Includes the inspection, diagnosis and performing repairs on air powered and hydraulic powered braking systems found on medium and heavy duty trucks. Co-requisite: DLC 190. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

DLC 101(2)  Course ID:017023
Digital Essentials
Introduces students to computer classifications, how to use an operating system, and how to use email. Pre-requisite: RDG 20 or Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

DLC 101(3)  Course ID:017025
Digital Advanced
Introduces students to the principles of computer and network security, basic troubleshooting techniques, and how to use computers to enhance life and work. Pre-requisite: DLC 101 or Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

DLC 101(3)  Course ID:017027
Brakes
Covers the operational theory and application of air brakes, hydraulic brakes and anti-lock brake systems. Covers the function and repair of disc brakes and drum brakes. Co-requisite: DLC 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DLC 101(2)  Course ID:017029
Brakes
Provides hands on activities related to the concepts covered in DLC 101. Covers inspection, diagnosis and performing repairs on batteries, starters, alternators and accessory systems found on medium and heavy duty trucks. Co-requisite: DLC 190. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

DT 262(B)  Course ID:004883
Advanced Specialty Laboratory Techniques
Students fabricate dental prostheses at a more advanced level in at least one of the following specialty areas: complete denture prosthodontics, dental ceramics, fixed prosthodontics (crowns and bridge), orthodontic appliances, or removable partial denture prosthodontics. Emphasis is placed on incorporating productivity, flow time, and quality requirements. Laboratory experience is provided in the classroom or selected externships in local dental laboratories. Pre-requisite: DLT 261. Lecture: 2 credits (30 contact hours); Laboratory: 6 credits (270 contact hours).
Components: Laboratory, Lecture

DTM 102(1)  Course ID:017125
Medical Terminology for Radiography
Provides an introduction to medical terminology. Introduces a word-building system and diagnostic report interpretation and related terminology. Pre-requisite: Permission to the radiography program. Lecture: 1 credit hour (15 contact hours).
Components: Lecture
Attributes: Technical

DTM 106(3)  Course ID:017126
Patient Care and Ethics for Radiographers
Provides the knowledge base necessary to perform imaging procedures of the upper extremities and shoulder girdle, lower extremities and pelvis girdle, bony thorax, chest, upper airway, and plain abdomen. Covers criteria for optimal diagnostic images, including anatomical structures shown, as well as corrective positioning action to be taken for sub-optimal images. Pre-requisite: BIO 137. Lecture: 2 credit hours (30 contact hours); Lab: 2 credit hours (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DMT 108(4)  Course ID:017127
Radiographic Positioning & Procedures I
Provides the knowledge base necessary to perform imaging procedures of the upper extremities and shoulder girdle, lower extremities and pelvic girdle, bony thorax, chest, upper airway, and plain abdomen. Covers criteria for optimal diagnostic images, including anatomical structures shown, as well as corrective positioning action to be taken for sub-optimal images. Pre-requisite: BIO 137. Lecture: 2 credit hours (30 contact hours); Lab: 2 credit hours (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DMT 110(1)  Course ID:017141
Radiography Practicum I
Designed to sequentially develop, apply, critical analyze, integrate, synthesize and evaluate concepts and theories in the performance of radiologic procedures. Provides structured clinical experience through sequential competency-based assignments that focus on the upper and lower extremities, bony and visceral thorax, and abdomen. Pre-requisite: Admission to the radiography program. Practicum: 1 credit hour (90 contact hours).
Components: Practicum
Attributes: Technical

DMT 112(3)  Course ID:017645
Principles of X-Ray Production, Exposure, and Image Production
Establishes a basic knowledge of atomic structure and terminology. Presents the nature and characteristics of radiation, x-ray production and the fundamentals of photon interactions with matter. Establishes a knowledge base in factors that govern the image production process. Imparts an understanding of the components, principles and operation of digital imaging systems found in diagnostic radiology. Includes factors that impact image acquisition, display, archiving and retrieval are discussed. Pre-requisite: MAT 150 or higher level quantitative reasoning course. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DMT 112(2)  Course ID:017139
Pharmacology for Radiographers
Provides basic concepts of pharmacology, venipuncture and administration of diagnostic contrast agents. Explains the classification and scheduling of drugs. Emphasizes the appropriate delivery of patient care during radiographic procedures requiring the administration of contrast agents. Pre-requisite: DMT 106 & DMT 108. Lecture: 2 credit hours (30 contact hours).
Components: Lecture
Attributes: Technical

DMT 118(4)  Course ID:017138
Radiographic Positioning and Procedures II
Provides the knowledge base necessary to perform standard imaging procedures of the spine, cranial, facial bones, paranasal sinuses, upper gastrointestinal, lower gastrointestinal, and urinary system. Covers criteria for optimal diagnostic images, including anatomical structures shown, as well as corrective positioning action to be taken for sub-optimal images. Pre-requisite: DMT 108. Lecture: 3 credit hours (45 contact hours); Lab: 1 credit hour (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DMT 120(2)  Course ID:017137
Radiography Practicum II
Continues the DMT 110 clinical experience. Designed to sequentially develop, apply, critical analyze, integrate, synthesize and evaluate concepts and theories in the performance of radiologic procedures. Provides structured clinical experience through sequential competency-based assignments that focus on the upper and lower extremities, bony and visceral thorax, abdomen, vertebral column, cranial, facial bones, and contrast studies of the digestive and urinary system. Pre-requisite: DMT 110. Practicum: 2 credit hours (180 contact hours).
Components: Practicum
Attributes: Technical
DMI 128(3) Course ID:017136
Radiographic Positioning and Procedures III
Provides the knowledge base and practical skills necessary to perform special diagnostic studies. Covers fluoroscopic procedures requiring informed consent, aseptic technique, and the administration of various contrast media. Considers the evaluation of optimal diagnostic images. Pre-requisite: DMI 108 & DMI 118. Lecture: 2 credit hours (30 contact hours). Lab: 1 credit hour (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DMI 130(2) Course ID:017135
Radiography Practicum III
Continues the DMI 120 clinical experience. Designed to sequentially develop, apply, critically analyze, integrate, synthesize and evaluate concepts and theories in the performance of radiologic procedures. Provides structured clinical experience through sequential competency-based assignments that focus on the upper and lower extremities, bony and visceral thorax, abdomen, vertebral column, cranium, facial bones, and contrast studies of the digestive and urinary systems, as well as surgical radiographic procedures. Pre-requisite: DMI 120. Practicum: 2 credit hours (180 contact hours).
Components: Practicum
Attributes: Technical

DMI 212(3) Course ID:017646
Radiographic Equipment and Quality Management
Establishes a knowledge base in design, construction requirement, functions and use of radiographic and fluoroscopic equipment, both fixed and mobile. Explains component and functions of various digital imaging processing and display systems. Provides a basic knowledge of quality control and federal regulation standards of operation for diagnostic radiographic equipment. Presents the principles of digital system quality assurance, quality and data management, and maintenance. Pre-requisite: DMI 112. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DMI 220(4) Course ID:017133
Radiography Practicum IV
Continues the DMI 130 clinical experience. Designed to sequentially develop, apply, critically analyze, integrate, synthesize and evaluate concepts and theories in the performance of radiologic procedures. Provides structured clinical experience through sequential competency-based assignments that focus on the upper and lower extremities, bony and visceral thorax, abdomen, vertebral column, cranium, facial bones, and contrast studies of the digestive and urinary systems, surgical radiographic procedures and special diagnostic procedures such as myelograms, arthrograms, hepatobiliary studies, and venography. Pre-requisite: DMI 130. Practicum: 4 credit hours (360 contact hours).
Components: Practicum
Attributes: Technical

DMS 109(7) Course ID:004392
Diagnostic Medical Sonographer
Sonography I
Provides a study of diagnostic foundations of clinical medicine pertinent to abdominal, superficial structures, musculoskeletal and non-cardiac chest sonography. Includes obtaining the clinical history, interpretation of disease, related clinical signs and symptoms, sectional anatomy, and normal/abnormal sonographic patterns. Includes a laboratory component for the practice and application of normal sonographic patterns, basic scanning techniques and protocol. Pre-requisite: Admission to Diagnostic Medical Sonography program; Computer Literacy; NAA 100 or equivalent; CPR certification. Lecture: 5.0 credits (75 contact hours) Lab: 2.0 credits (90 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DMS 115(6) Course ID:004395
Instructor Consent Required
Sonography II
Covers the study of the clinical applications within the sonographic specialties of obstetrics and gynecology. Includes related clinical symptoms and laboratory tests, pathophysiologic effects of disease and anomalies, and normal/abnormal sonographic patterns. Includes basic scanning techniques and protocol. with an emphasis on the demonstration of clinical applications of theoretical principles and concepts. Pre-requisite: Admission to Diagnostic Medical Sonography program; Computer Literacy; NAA 100 or equivalent; CPR certification. Lecture: 4.0 credits (60 contact hours). Lab: 2.0 credits (90 contact hours) (45:1 Ratio).
Components: Laboratory, Lecture
Attributes: Technical

DMS 116(6) Course ID:006260
OB/GYN Sonography
Covers the study of the clinical applications within the sonographic specialties of obstetrics and gynecology. Includes related clinical symptoms and laboratory test, pathophysiologic effects of disease and anomalies, and normal/abnormal sonographic patterns. Includes basic scanning techniques and protocol. Designed for the student to utilize the laboratory facilities to demonstrate clinical applications of theoretical principles and concepts. Pre-requisite: Admission to Diagnostic Medical Sonography program; Computer Literacy; CPR certification; NAA 100 or equivalent. Lecture/Lab: 6.0 credits (150 contact hours).
Components: Lecture
Attributes: Technical

DMS 119(6) Course ID:004393
Department Consent Required
Ultrasonic Physics and Instrumentation
Consists of lectures and related laboratory exercises covering the areas of ultrasonic propagation principles, transducer parameters, interactive properties of ultrasound with human tissue, possible biologic effects, basic equipment types, instrumentation and quality control procedures, hemodynamics and basic Doppler. Pre-requisite: Consent of Program Coordinator. Lecture: 6.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

DMS 126(3 - 4) Course ID:004394
Clinical Education I
Includes observation of all clinical duties performed in the ultrasound department. Covers basic instruction and scanning experience in abdomen, superficial structures, non-cardiac chest, embryo/fetus, gravid and non-gravid pelvic structures with basic competencies to be performed. Pre-requisite: Minimum grade of “C” in DMS 109 and DMS 115 or (DMS 111 and DMS 116). Clinical: 3.0 - 4.0 credits (160 - 240 contact hours).
Attributes: Clinical
Attributes: Technical
DMS 146(12)  Course ID:071115  
Cardiac Techniques I
Provides a study of normal cardiovascular anatomy and physiology including hemodynamic concepts, electrocardiography, and the conduction system. Includes patient care and medical and legal issues of sonographers. Presents pathophysiologic conditions, signs and symptoms of valvular heart disease, ischemic cardiac disease, and infective endocarditis, and prosthetic heart valves and discussion of the various cardiac testing procedures used in diagnosis. Includes a laboratory component to develop basic skills in 2D, M-mode, Doppler scanning techniques and standard measurements. Pre-requisite: Admission to Diagnostic Sonography program; Digital Literacy; NAA 100 or equivalent; CPR certification. Co-requisite: DMS 147 Lecture: 8 credit hours (120 contact hours). Lab: 4 credit hours (180 contact hours).

Components: Integrated Laboratory, Integrated Lecture
Attributes: Technical

DMS 147(1)  Course ID:071116  
Cardiac Clinical Education I
Introduces the student to the clinical environment including the function and organization of the echocardiography department and the various testing procedures utilized in the diagnosis of cardiac diseases. Presents opportunities to observe and model the appropriate professional behaviors and communication expected in the clinical setting and initiates the performance of basic scan skills under the supervision of appropriately credentialed cardiac sonographers. Pre-requisite: Admission to the Diagnostic Medical Sonography program; Digital Literacy; NAA 100 or equivalent; CPR certification. Co-requisite: DMS 146, Clinical: 1 credit hour (60 contact hours).

Components: Clinical
Attributes: Technical

DMS 199(1)  Course ID:095938  
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(1)  Course ID:095937  
Online Abdomen Review
Provides a review of abdominal sonography to prepare the student for the related registry. Includes obtaining a clinical history, interpretation of clinical laboratory tests, pathologic basis for disease, related clinical signs and symptoms, sectional anatomy, and normal/abnormal sonographic patterns. 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:095938  
Online OB/GYN Review
Provides a review of related clinical signs and symptoms, laboratory tests, and normal/abnormal sonographic patterns in preparation for the related Ob/Gyn registry. Pre-requisite: DMS 115 or DMS 116 with minimum “C” grade or Consent of Program Coordinator. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
Attributes: Technical

DMS 207(7)  Course ID:071117  
Cardiac Techniques II
Presents content on additional cardiac pathogens including acquired and congenital heart diseases. Covers the relationship of echocardiography to patient history and physical examination, abstracting the clinical chart, indications for exam, and differential diagnoses. Discusses cardiovascular pharmacology, their potential effects on echocardiographic findings, and provocative agents and maneuvers. Includes a laboratory component to further develop scan skills and practice more advanced evaluations of Color Flow, Pulsed and Continuous wave Doppler findings, valvular stenosis severity, ventricular function, and abnormal cardiovascular hemodynamics and flow patterns and correlating Doppler findings. Pre-requisite: DMS 146 with a minimum “C” grade or Consent of Program Coordinator. Lecture: 4 credit hours (60 contact hours). Lab: 3 credit hours (135 contact hours).

Components: Integrated Laboratory, Integrated Lecture
Attributes: Technical

DMS 215(6)  Course ID:005944  
Cardiac Sonography III
Covers the basic embryology of the heart, fetal and postnatal circulation, and basic types of congenital heart defects found in the adult. Includes how systemic disease affects the heart and basic clinical problem solving techniques used in echocardiography. Pre-requisite: DMS 205 with minimum “C” grade. Lecture/Lab: 6.0 credits (270 contact hours).

Components: Lecture

DMS 2305 - 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 2405 - 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 247(2)  Course ID:017120  
Cardiac Clinical Education II
Includes observation of all clinical duties in the echocardiographic department including routine, stress, transesophageal echocardiography (TEE), and 3D echocardiography as possible. Emphasizes basic clinical scanning experience under the supervision of a credentialed Cardiac Sonographer. Pre-requisite: DMS 147 with a grade of Pass or Consent of Program Coordinator. Co-requisite: DMS 207. Clinical: 2 credit hours (120 contact hours).

Components: Clinical
Attributes: Technical

DMS 248(6)  Course ID:017121  
Cardiac Clinical Education III
Requires progressive clinical experience with student assuming a more active role in assisting the supervising Cardiac Sonographer with the rate of progress dependent upon the student’s ability. Emphasizes increased participation in performance of the complete adult echo examination including scanning competencies, and participation in non-routine procedures including transesophageal echocardiography (TEE) and stress echocardiographic studies. Pre-requisite: DMS 247 with minimum “C” grade or Consent of Program Coordinator. Clinical: 6 credit hours (360 contact hours).

Components: Clinical
Attributes: Technical

DMS 255(6)  Course ID:005939  
Vascular Technology
Presents normal/abnormal sectional anatomy, hemodynamics, patient assessment and diagnostic testing related to vascular technology. Includes applications of pathophysiologic basis, clinical signs and symptoms and typical findings related to the peripheral vascular system. Includes therapeutic interventions, intraoperative monitoring and the use of contrast agents. Covers vascular physics including blood flow characteristics and pressure/flow/velocity relationships. Pre-requisite: Minimum “C” grade in (DMS 119 and DMS 240) or Consent of Program Coordinator. Lecture/Lab: 6.0 credits (120 contact hours).

Components: Lecture
Attributes: Technical

DMS 290(6)  Course ID:005940  
Vascular Clinical Education
Provides clinical experience by student actively assisting and performing vascular procedures under direct supervision of a Vascular Technologist. Completes competencies including cerebrovascular, upper/lower venous/arterial extremity, and abdominal vasculature. Pre-requisite: DMS 255 with minimum “C” grade. Clinical: 6.0 credits (360 contact hours).

Components: Clinical
Attributes: Technical

DPT 100(3)  Course ID:015703  
Introduction to 3D Printing Technology
Provides an introduction to the world of additive manufacturing, or more commonly known as three-dimensional printing (3DP), and its applications in conjunction with computer technology. Introduces topics including computer hardware and software, 3D printing technologies, file management, the Internet, email, the social web, sustainability, security, and computer and intellectual property ethics. Presents basic use of applications, programming, systems, and utility software. Lecture: 2 credit hours (30 contact hours). Lab: 1 credit hour (30 contact hours).

Components: Integrated Laboratory, Integrated Lecture
Attributes: Digital, Literacy, Technical

DPT 102(2)  Course ID:016604  
3D Printing Technology Fundamentals
Provides an introduction to the world of three-dimensional (3D) printing or additive manufacturing (AM) and its applications. Introduces topics including 3D printing technologies, basic use of 3D applications, programming, systems, 3D-scanning, and utility software. Pre-requisite or Co-requisite: CIT 105, demonstration of digital literacy competency by exam or certificate, or other approved course with digital literacy status. Lecture/Lab: 2.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

DPT 150(3)  Course ID:016605  
Introduction to Engineering Mechanics for 3D Printing
Provides an introduction to simplified engineering mechanical principles as they apply to 3D printing, or additive manufacturing, designs and products. Requires students to apply concepts related to simple force and stress analysis, material property selection, and deformation to their designs for the purpose of improving functional performance and overall printing success. Explores finishing and post-processing techniques to enhance the final appearance and marketability of their printed work. Pre-requisite: DPT 100 or DPT 102. Lecture/ Lab: 3.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical

DPT 210(3)  Course ID:017530  
Introduction to Powder-Based Additive Manufacturing
Prepares technicians for the advanced applications and utilization of powder-based additive manufacturing, or 3D printing, materials, and equipment. Requires students to demonstrate knowledge of related safety, additive manufacturing processes, lightweighting, generative design, appropriate equipment utilization, and quality control methodologies. Directs students in applying finishing and post-processing techniques through the use of conventional machining equipment to enhance the final appearance, strength, and marketability of their work. Pre-requisites: DPT 100, CIT 105. Integrated Lecture/Lab: 3.0 credits (60 contact hours).

Components: Integrated Laboratory, Integrated Lecture
Attributes: Technical
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 a professional. Focuses on various assignments and curriculum as determined by the program instructor. Pre-requisite: DPT 100 or DPT 102.
Lecture/Lab: 1.0 credits (30 contact hours)
Components: Lecture
Attributes: Technical

ECO Economics

ECO 101(3) Course ID:000445
Contemporary Economic Issues
Covers contemporary economic issues such as inflation, poverty and affluence, globalization, and environmental pollution. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, Course Also Offered in Modules

ECO 150(3) Course ID:006703
Introduction to Global Economics
Covers the causes and issues of global economic interdependence, with particular emphasis on cross-cultural implications of globalization. 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: 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 such issues 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

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: EDM 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: PST 100 or FY 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 12 clock hours in instructor-approved educational agencies. Pre-requisite: EDP 202 with an earned grade of C or higher. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other

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: 3.0 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: 3.0 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: 3.0 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: 3.0 credits (45 contact hours).
Components: Lecture
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, and 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 environment to 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 101. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical
EE Electrical Engineering
EE 210(3.5) Course ID:017242
Circuits and Networks I
An introductory course in circuit analysis including Kirchhoff's Laws, independent and dependent sources, power and energy, lumped linear fixed networks, power factor, phasors, and three phase networks. Pre-requisite: MAT 185 Calculus II (C or better). Co-requisite: PHY 232 University Physics II. Lecture: 3 credit hours (37.5 contact hours). Lab: 0.50 credit hour (30 contact hours).
Components: Laboratory, Lecture Attributes: University Course (Western Kentucky University)
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 Ohm's Law; construction and analysis of series, parallel, and series-parallel circuits; principles of magnetism and electromagnetism; alternating current and voltage; reactive components; construction and analysis of RC, RL, and RLC circuits; sinusoidal and other waveforms. Lecture/Lab: 2.0 credits (60 contact hours).
Components: Lecture Attributes: Technical
EET Electrical Technology
EET 100(3) Course ID:017506
Electrical Safety in the Workplace
Introduces students to electrical hazards that are associated with working around electricity and the precautions that must be taken to ensure a safe working environment. Focuses on potential hazards that may be encountered on the job such as electric shock and arc flash. Covers personal protective equipment, Lock-Out-Tagout practices, tool safety, equipment safety, and guidelines for working around hazardous environments according to OSHA and the NFPA 70E. Lecture: 3.0 credits (45 contact hours)
Components: Lecture Attributes: Technical
EET 110(4) Course ID:004231
Voice & Data Installer Level I
Introduces students to the telecommunication industry. Provides an entry-level telecommunication installations cables installers with the background, knowledge, and basic skills needed to function effectively on the job. Prepares students with little or no telecommunication installation experience. Pre-requisite: Basic physics/electricity courses are recommended but not required. Lecture: 4 credits (75 contact hours).
Components: Laboratory, Lecture Attributes: Technical
EET 112 (3) Course ID: 004232
Bsc Electrical Theory: TeleNet
Introduces the theory of electricity, magnetism, and the relationship of voltage, current, resistance, and power in electrical circuits as related to telecommunication. Develops an understanding of alternating and direct current fundamentals. Students will apply formulas to analyze the operation of AC and DC circuits. Co-requisite EET 113. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical
EET 116(3) Course ID:004235
Fiber Optics Systems
Provides a technical level of understanding in the areas of networking connectivity, data communications concepts and communication protocols. Introduces students to communications and networking concepts including hardware, software, and transmission media; access methods and protocols; and network configurations area are addressed. Emphasizes local area networks, and installation of a basic network. Pre-requisite: EET 110 with a minimum grade of "C" or consent of Electrical Technology program advisor(s). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical
EET 118 (3) Course ID: 004236
Residential Network Wiring
Provides students with the knowledge to design and install multimedia applications for residential structures; gain an understanding of industry-standards practices, codes, and ordinances that pertain to high-performance in-home systems. Introduces students to voice, data, security, video, audio, automation, control and entertainment systems, cable performance characteristics, and appropriate cabling media, connectors, blocks, jacks, panel, pathways and spaces. Pre-requisite: EET 110 with a minimum grade of “C” or consent of Electrical Technology program advisor(s). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical
EET 119(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 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 055 or equivalent placement level or consent of program advisor(s). Lecture/Lab: 5.0 credits (45 contact hours Lecture / 60 contact hours Lab)
Components: Lecture Attributes: Technical
EET 127(1) Course ID:015853
Electrical Technology Capstone
Serves as the capstone course for the Electrical Technology degree program and all of its concentrations. Integrates prior learning outcomes into a single integrated learning experience. Includes an exit exam that all program graduates must take. Pre-requisite: Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture Attributes: Technical
EET 150(2) Course ID:001355
Transformers
Focuses on the operation, installation and application of AC single-phase and three-phase transformers. Emphasizes the testing and maintaining transformer equipment, with safety integrated as a core component of the study. Pre-requisite: (ELT 110 or EET 119) with a minimum grade of “C” or consent of Electrical Technology program advisor(s). Co-requisite: EET 151. Lecture: 2.0 credits (30 contact hours).
Components: Lecture Attributes: Technical
EET 151(1) Course ID:001356
Transformers Lab
Focuses on the operation, installation and application of AC single-phase and three-phase transformers. Emphasizes the testing and maintaining transformer equipment, with safely integrated as a core component of the study. Pre-requisite: Consent of Instructor. Lecture: 1.0 credit (30 contact hours).
Components: Lecture Attributes: Technical
EET 154(2) Course ID:001358
Electrical Construction I
Introduces students to the materials and procedures used in construction wiring. Prerequisite: (ELT 110 or EET 119) with a minimum grade of “C” or consent of Electrical Technology program advisor(s). Co-requisite: EET 155. Lecture: 2.0 credits (30 contact hours).
Components: Lecture Attributes: Technical
EET 155(2) Course ID:001359
Electrical Construction I Lab
Provides students hands-on experiences with electrical materials and equipment in construction wiring. Prerequisite: (ELT 110 or EET 119) with a minimum grade of “C” or consent of Electrical Technology program advisor(s). Co-requisite: EET 154. Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory Attributes: Technical
EET 198(2) Course ID:001361
Instructor Consent Required
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 Electrical Technology program advisor(s). 2.0 credits (150 contact hours).
Components: Practicum Attributes: Technical
EET 199(2) Course ID:001362
Instructor Consent Required
Cooperative Education Program
Provides supervised on-the-job work experience related to the student's educational objectives. (Students participating in the Cooperative Education Program receive compensation for their work.) Prerequisite: Consent of Electrical Technology program advisor(s). 2.0 credits (150 contact hours).
Components: Co-Op
Attributes: Technical

EET 200(2) Course ID:017531
Robotic Systems I
Introduces students to the history, terminology, theory, and common applications of robotic systems. Provides instruction in basic robot programming techniques, file execution and manipulation, coordinate systems, and file maintenance. Focuses students on robotic system components and preventative maintenance tasks. Prepares students to identify safety devices and utilize safety procedures while working with robotic systems. Integrated Lecture/Lab: 2.0 credits (45 contact hours).
Components: Integrated Laboratory, Integrated Lecture
Attributes: Technical

EET 201(2) Course ID:017532
Robotic Systems II
Introduces students to advanced robot programming concepts used in manufacturing. Prepares students to work with various power systems used with a robotic system. Provides a basic introduction of concepts and techniques used to maintain electrical and mechanical robotic systems. Provides an introduction into vision systems used within a manufacturing environment. Prepares students to identify safety devices and utilize safety procedures while working with robotic systems. Prerequisite: EET 200 Robotic Systems I. Integrated Lecture/Lab: 2.0 credits (45 contact hours).
Components: Integrated Laboratory, Integrated Lecture
Attributes: Technical

EET 202(2) Course ID:017533
Robotic Maintenance
Introduces students to robotic maintenance commonly performed on robots in manufacturing. Prepares students to back up software, isolate all electrical and mechanical power. Prepares students to perform preventative maintenance procedures according to manufacturer specifications. Prerequisite: EET 201 Robotic Systems II OR IMT 200 Industrial Robotics and Robotic Maintenance. Integrated Lecture/Lab: 2.0 credits (45 contact hours).
Components: Integrated Laboratory, Integrated Lecture
Attributes: Technical

EET 203(2) Course ID:017534
Robotic Vision Systems
Introduces students to vision systems commonly used with robots in manufacturing environments. Prepares students to setup, calibrate, and utilize vision systems. Prepares students to master the robot, create tool and user frames used with the vision system and process, and program the robot to respond to vision results. Provides hands on applications of procedures and utilization of common vision systems found in industry. Prerequisite: EET 201 Robotic Systems II OR IMT 200 Industrial Robotics and Robotic Maintenance. Integrated Lecture/Lab: 2.0 credits (45 contact hours).
Components: Integrated Laboratory, Integrated Lecture
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. Provides a learning resource in the preparation for electrical licensing examinations. Prerequisite: ELT 110 OR EET 119 with minimum grade of "C" or consent of Electrical Technology Program advisor(s). Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

EET 252(2) Course ID:001411
Electrical Construction II
Expands the knowledge and skills needed to work in commercial and industrial construction wiring. Prerequisite: Consent of Instructor or EET 154. Co-requisite: EET 253. Lecture: 2 credits (30 contact hours).
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
Focuses on the study of materials and procedures and expands the knowledge and skills needed to work in commercial and industrial construction wiring. Prerequisite: (ELT 110 OR EET 119) with a minimum grade of "C" or consent of Electrical Technology program advisor(s). Co-requisite: EET 255. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EET 255(4) Course ID:001414
Electrical Construction Lab
Provides hands-on experiences with electrical materials and equipment related to commercial and industrial construction wiring. Prerequisite: (ELT 110 OR EET 119) with a minimum grade of "C" or consent of Electrical Technology program advisor(s). Co-requisite: EET 254. Laboratory: 4 credits (120 contact hours).
Components: Laboratory
Attributes: Technical

EET 264(2) Course ID:001419
Rotating Machinery
Focuses on the underlying principles of rotating electrical equipment including DC and AC motors and generating equipment construction, operating applications, and the maintenance of DC and AC motors and generating equipment. Prerequisite: (ELT 110 OR EET 119) 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) Course ID:001420
Rotating Machinery Lab
Focuses on the principles of operation, application and maintenance of single-phase and three-phase AC motors and AC alternators, DC motors, DC generators. Introduces students to the standards of the National Electrical Code and its use. Prerequisite: ELT 110 or EET 119 with a minimum grade of "C" or consent of Electrical Technology program advisor(s). Co-requisite: EET 264. Lab: 2.0 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

EET 266(3) Course ID:001421
Rotating Machinery and Transformers
Focuses on the principles of operation and application of single-phase and three-phase AC transformers to include: analysis of voltage, current and power parameters and connection configurations. Gives an in-depth study of direct and alternating current rotating machinery that produces and utilizes electrical energy. Prerequisite: (ELT 110 OR EET 119) with a minimum grade of "C" or consent of Electrical Technology program advisor(s). Co-requisite: EET 267. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EET 267(3) Course ID:001422
Rotating Machinery and Transformers Lab
Applies the principles of operation, application and maintenance of single-phase and three-phase AC transformers, motors and alternators, and DC motors and generators. Focuses on the compliance with current National Electric Code standards to insure safe installation methods. Pre-requisite: (ELT 110 or EET 119) with a minimum grade of "C" or consent of Electrical Technology program advisor(s). Co-requisite: EET 266. Lab: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

EET 268(3) Course ID:001423
Instructor Consent Required
Rotating Machinery Electrical Motor Controls I
Focuses on the construction, operation and maintenance of DC motors and generators and AC motors and alternators. Addresses the diversity of control devices and applications used in industry today. Emphasizes the importance safety and electrical lockouts are also included. Pre-requisite: (ELT 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) Course ID:001424
Rotating Machinery and Motor Controls I Lab
Provides practical experience in the use of control devices and their applications in industry today. Focuses on the construction, operation and maintenance of AC motors and alternators, and DC motors and generators. Emphasizes the importance of safety and electrical lockouts. Prerequisite: (ELT 110 or EET 119) with a minimum grade of "C" or consent of Electrical Technology program advisor(s). Co-requisite: EET 268. Laboratory: 4.0 credits (120 contact hours). Lab: 4.0 credits (120 contact hours).
Components: Laboratory
Attributes: Technical

EET 270(2) Course ID:001425
Electrical Motor Controls I
Addresses the diversity of control devices and applications used in industry today. Emphasizes the importance of safety and electrical lockouts. Prerequisite: (ELT 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) Course ID:001426
Electrical Motor Controls I Lab
Provides practical experience in the use of control devices and their applications in industry today. Emphasizes the importance of safety and electrical lockouts. Pre-requisite: (ELT 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) Course ID:001427
Electrical Motor Controls II
Introduces advanced study of motor controls in industry. Focuses on solid state relays, hall effect sensors, proximity detectors and photo detectors. Provides hands-on instruction to include sketching, installing, and troubleshooting the following; three phase controls, variable speed drives using relays as well as solid state devices. Provides an introduction to the installation and programming of Programmable Logic Controllers. Pre-requisite: EET 270 OR EET 264 OR EET 268 with a minimum grade of "C" or consent of Electrical Technology program advisor(s). Co-requisite: EET 273. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical
EET 273(2) Course ID:001428
Electrical Motor Controls II Lab
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 Logic Controllers. Pre-requisite: EET 271 OR EET 265 OR EET 269 with a minimum grade of “C” or consent of Electrical Technology program advisor(s). Co-requisite: EET 272. Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

EET 274(3) Course ID:001429
Electrical Motor Controls
Addresses the diversity of control devices and applications used in industry today. Emphasizes the importance of safety and electrical lockouts. Focuses on the advanced study of motor controls in industry. Focuses on solid state relays, hall effect sensors, proximity detectors and photo detectors. Examines the sketching, installing and troubleshooting the following: three phase controls, variable speed drives, relays, 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 275. Lecture: 3.0 credits (45 contact hours).
Components: Laboratory
Attributes: Technical

EET 275(4) Course ID:001430
Electrical Motor Controls Lab
Provides practical experience in the use of control devices and their applications in industry today. Emphasizes the importance of safety and electrical lockouts. Provides hands-on experience in advanced studies in electrical controls used in industry including three-phase motor control and variable speed control using solid state devices and programmable controls. Pre-requisite: (EET 110 or EET 119) with a minimum grade of “C” or consent of Electrical Technology program advisor(s). Co-requisite: EET 274. Lab: 4.0 credits (120 contact hours).
Components: Laboratory
Attributes: Technical

EET 276(2) Course ID:001431
Programmable Logic Controllers
Introduces principles and applications of programmable logic controllers including installation, logic fundamentals, and numbering systems; basic programming of inputs, outputs, timers, and counters, comparators, basic data manipulation, and safety circuits of industrial PLCs. Pre-requisite: EET 270 OR EET 268 OR EET 274 with a minimum grade of “C” or consent of Electrical Technology program advisor(s). Co-requisite: EET 277. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

EET 277(2) Course ID:001432
Programmable Logic Controllers Lab
Provides practical applications of programmable logic controllers including installation, logic fundamentals, and numbering systems; basic programming of inputs, outputs, timers, and counters, comparators, basic data manipulation, and safety circuits of industrial PLCs. Pre-requisite: EET 270 OR EET 268 OR EET 275 with a minimum grade of “C” or consent of Electrical Technology program advisor(s). Co-requisite: EET 276. Lab: 2.0 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

EET 280(4) Course ID:0017412
Multi-Platform Programmable Logic Controllers
Introduces students to multiple platforms of programmable logic controllers (PLC). Prepares students to wire, communicate with program and troubleshoot multiple brands of PLCs. Introduces students to basic programming of inputs, outputs, internal relay, timers, counters, comparator, math and data manipulation instructions. Provides hands on lab application of multiple platforms of programmable logic controllers found in industry. Pre-requisite: EET 276 and EET 277 with a minimum grade of C or consent of Electrical Technology program advisor(s). Integrated Lecture/Lab: 4 credits (90 contact hours).
Components: Integrated Laboratory, Integrated Lecture
Attributes: Technical

EET 280(2) 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. Laboratory: 1 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

EET 283(3) 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. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

EET 285(3) Course ID:001437
Special Problems III
A course designed for the student who has demonstrated specific special needs. Pre-requisite: Permission of Instructor. Laboratory: 3 credits (135 contact hours).
Components: Laboratory
Attributes: Technical

EET 288(2) Course ID:0004627
Programmable Logic Controllers II Lab
Provides hands on lab applications dealing with sequencers, shift registers, networks, communication software, human to machine interfaces, analog devices, and troubleshooting. Pre-requisite: (EET 276) with a minimum grade of “C” or consent of Electrical Technology program advisor(s). Co-requisite: EET 286. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

EET 290(4) Course ID:0714713
Troubleshooting Industrial Controls and Motors
Introduces students to basic electrical troubleshooting concepts pertinent to the electrical technology industry. Provides an in-depth study of electrical troubleshooting using schematics, wiring diagrams, digital multi-meters, programmable logic controllers, and motoranalizers. Prepares students to learn how to troubleshoot common electrical faults using a multi-meter. Focuses primarily on providing students with an overview of common electrical faults and how to pinpoint them using a programmable logic controllers. Pre-requisite: (EET 276 and EET 277) with a minimum grade of “C” or consent of Electrical Technology program advisor(s). Co-requisite: EET 286. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

EET 295(2) Course ID:001428
Alternative Energy Photovoltaic and Wind Electrical Generations Systems
Introduces students to the methods and equipment necessary for the installation and maintenance of photovoltaic and, wind electrical generation system. Covers the standards and requirements set forth by the National Electric Code and the National Association of Certified Energy Practitioners for alternative energy electrical generation systems. Pre-requisite: (ELT110 or EET119 and EET154 and EET155 and EET252 and EET253 or EET 254 and EET 255 and EET250) or electrical experience and consent of Electrical Technology program advisor(s). Lecture: 3 credits (45 contact hours). Lab: 1 credit (50 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

EFT 298(1 - 8) Course ID:001438
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: Consent of Electrical Technology program advisor(s). This course may be taken for 1 - 8 credits.
Components: Practicum
Attributes: Technical

EFT 299(1 - 8) Course ID:001439
Instructor Consent Required
Cooperative Education Program
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 Electrical Technology program advisor(s).
Components: Co-Op
Attributes: Technical

EFG Economics

EFG 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. economy. Students will explore the various aspects involved in being responsible consumers, the importance of personal financial planning, the relationship between employment opportunities and financial security, and other aspects of becoming successful and productive workers, consumers, and citizens. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other, Enrichment Course Other

EG Engineering

EGR Engineering

EGR 101(1) Course ID:009198
Engineering Exploration I
Engineering Exploration I introduces students to the engineering and computer science professions, College of Engineering degree programs, and opportunities for career path exploration. Topics and assignments include study skills, team development, ethics, problem solving and basic engineering tools for modeling, analysis and visualization. Open to students enrolled in the College of Engineering. Students who received credit for EGR 112 are not eligible for EGR 101. Pre-requisites: Enrolled in the College of Engineering or MA-ACCT 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)

EGY Energy Technologies

EGR 120(4) Course ID:006621
Outside Plant Communications
Introduces students to fiber optic communication systems and up-to-date fiber techniques including how to design, install, test and maintain fiber optic single mode networks. Emphasizes single mode fiber optic installation with the associated international standards, theory, and practices. Prepares the student to work with fiber optic splicing, testing and troubleshooting equipment that is found in the workplace. Pre-requisite: (ELT 110 and ETT 110) or (electrical experience and consent of instructor). Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
EGY 170(4) Course ID:006822
Energy Utility Technologies
Introduces students to the technologies used in energy utility companies, including line maintenance, underground operations, substations and switchyards and transmission operations. Gives students the opportunity to climb a utility pole and conduct basic maneuvers. Addresses types of underground systems, substation and switchyard equipment and transmission structures. Emphasizes electrical, underground, maintenance and transmission safety. Pre-requisite: (ELT 110 and EET 150 and EET 151) or (electrical experience and consent of instructor). Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

EGY 220(4) Course ID:006823
Energy Efficiency Electrical Controls
Designed for Electrical Technology students and Apprentice, Journeymen, Master, and Contractor Electricians as a foundation into the studies of green technology relating to electrical energy. Focuses on the assessment of electrical energy usage in commercial buildings with the understanding that the electrical energy technician will install and maintain efficient electrical controls and equipment. Prepares students to assist in the design of efficient electrical energy systems under the supervision of a Certified Energy Manager or licensed Professional Engineer. Pre-requisite: (ELT 110 and EET 154 and EET 155 and EET 252 and EET 253 and EET 250) or (electrical experience and consent of instructor). Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

EGY 230(4) Course ID:006824
Solar / Photovoltaic Technologies
Covers the design and installation of grid connected, stand-alone, and hybrid photovoltaic (PV) systems, and involves hands-on work with PV systems and equipment. Intended for electrical technology students, apprentices, contractors, electricians, and other practitioners, with an overall goal of developing "system knowledgeable" professionals to help ensure the safety and quality of PV system installations. Pre-requisite: (ELT 110 and EET 154 and EET 155 and EET 252 and EET 253 and EET 250) or (electrical experience and consent of instructor). Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

EGY 240(4) Course ID:006825
Energy Efficiency and Analysis
Discusses the basic principles of how energy flows into and out of a residential building, using the "House as a System" approach. Develops the skills needed to perform a home energy audit. Gives students hands-on experiences with a blower door, thermal imaging camera as well as other auditing tools. Pre-requisite: Consent of instructor. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

EGY 250(4) Course ID:006826
Wind/ Turbine Technologies
Introduces the theory and practices of wind power and how it is used and connected as a renewable energy source for the home, farm and business. Pre-requisite: ELT110 or consent of instructor. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ELT 102(2) Course ID:000526
Blueprint Reading
A comprehensive study of current drafting standards and blueprint reading techniques are included. Topics include standard lines and symbols, sketching techniques, orthographic projection, auxiliary views, detail and assembly drawings, dimensions, tolerances, sectional views,法案 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 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 controllable machine components, tools, programmable functions, control system components, physics of metal cutting, metal cutting data, coordinate systems, NC related dimensioning, and CNC programming. Pre-requisite: Consent of Instructor. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ELT 120(3) Course ID:004637
Digital I
Introduces theory and application of digital logic methods. Includes Boolean algebra, 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, packings and seals, bearings, mechanical fasteners, pipe fittings, pumps, and valves. Co-requisite: ELT 124. Lecture: 3.0 credit (45 contact hours).
Components: Attributes: Technical

ELT 124(1) Course ID:000578
Mechanical Power Transmission Systems Lab
Introduces mechanical systems and devices common to the Millwright and Industrial Maintenance trades. Includes topics of belt drives, gear drives, chain drives, couplings, packings and seals, bearings, mechanical fasteners, pipe fittings, pumps, and valves. Co-requisite: ELT 122. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Technical

ELT 210(4) Course ID:004639
Devices I
Provides basic theory and application of semi-conductor devices. Emphasizes design, construction and troubleshooting of diode and transistor circuits, amplifiers and power supplies. Pre-requisite: (ELT 110 with a grade of C or greater) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

ELT 214(4) Course ID:004642
Devices II
Covers theory and application of advanced semiconductor devices. Emphasizes thyristors, FETs, integrated circuits, and other devices as applied to audio frequency amplifiers, feedback circuits, modulators, detectors, and other basic electronic circuits. Pre-requisite: (ELT 210 with a grade of C or greater) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

ELT 220(3) Course ID:004645
Digital II
Provides theory and application of advanced digital logic methods. Includes small and medium scale integrated circuits logic families, interfacing techniques, arithmetic circuitry, programmable devices, and an introduction to microprocessors. Pre-requisite: (ELT 120 with a grade of C or greater) or Consent of Instructor. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

ELT 222(3) Course ID:004647
Instructor Consent Required
Mechanics of Telephony
Covers history of the telephone and regulations that impact the telecommunications industry, analog and digital transmission mediums, and the evolution of wireless and digital services. Utilizes the graduated height method for developing climbing skills and confidence. Pre-requisite: Consent of Instructor. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
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 234(3) Course ID:000521
Computer Hardware Maintenance
Covers maintenance of the personal computer with an emphasis on installation, upgrading, and configuration of the operating system. Covers memory management, boot sequences, printing subsystem, application software and networking with troubleshooting as a main focal point including viruses. When combined with ELT 234, this course will help prepare students to take CompTIA A+ certification tests. 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, contactors, and solid state devices in control circuits. Provides application of digital and analog control techniques, ladder logic, and programming techniques to industrial and manufacturing processes. Pre-requisite: Consent of instructor. Lecture: 3.0 credits (45 contact hours) Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ELT 250(4) Course ID:000657
Programmable Logic Controllers
Covers the study of Programmable Logic Controllers with an emphasis on the function and use of PLCs in an industrial environment. Pre-requisite: ELT 244 or Consent of instructor. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ELT 260(5) Course ID:004652
Instructor Consent Required
Robotic and Industrial Automation
Introduces theory of technology and robotic and industrial manipulation. Emphasizes design, construction, and troubleshooting of simple automated robotic systems. Pre-requisite: Consent of instructor. Lecture: 3.0 credits (45 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

ELT 264(4) Course ID:000691
Mechanical Design
Covers study techniques associated with the design of machine elements, including structural members subjected to combined stresses resulting from shear or torsion coupled with axial and bending loadings. Includes material treatments, failure theories, failure prevention, and steady and variable (fatigue) elements, including rotating shafts, pressure vessels, power screws, and attachment schemes. Pre-requisite: (ELT 201 and PHY 211) or Consent of Instructor. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

ELT 265(3) Course ID:000697
Applied Fluid Power
Covers the fundamental types of hydraulic and pneumatic devices and circuits used in industry. Includes basic fluid mechanics, industrial hydraulic components, pneumatic components, circuit design and analysis, electrical control of fluid power circuits, and fluid power maintenance and safety. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ELT 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 221(3) Course ID:000462
Series and Parallel Circuits
Introduces basic DC circuits, specifically series and parallel circuits. Emphasizes design, construction, and troubleshooting of simple DC circuits in laboratory exercises. Pre-requisite: (ELT 1101 with a grade of C or better) or Consent of Instructor. Lecture: 0.6 credits (9 contact hours). Lab: 0.4 credits (12 contact hours).
Components: Laboratory, Lecture

EM 223(3) Course ID:000638
Basic Electricity
Introduces basic DC circuits, specifically safety, basic test equipment, electrical resistance and Ohm's law. Pre-requisite: (MAT 065 or equivalent placement level) or Consent of Instructor. Lecture: 0.6 credits (9 contact hours). Lab: 0.4 credits (12 contact hours).
Components: Laboratory, Lecture

EM 224(3) Course ID:000539
Series and Parallel Circuits
Introduces basic DC circuits, specifically series and parallel circuits. Emphasizes design, construction, and troubleshooting of simple DC circuits in laboratory exercises. Pre-requisite: (ELT 1101 with a grade of C or better) or Consent of Instructor. Lecture: 0.6 credits (9 contact hours). Lab: 0.4 credits (12 contact hours).
Components: Laboratory, Lecture

EM 225(3) Course ID:000640
Introductory Circuit Analysis
Introduces basic DC circuits, specifically series-parallel circuit analysis techniques. Emphasizes design, construction, and troubleshooting of simple DC circuits in laboratory exercises. Pre-requisite: (ELT 1102 with a grade of C or better) or Consent of Instructor. Lecture: 0.6 credits (9 contact hours). Lab: 0.4 credits (12 contact hours).
Components: Laboratory, Lecture

EM 226(3) Course ID:000641
Magnetism and Alternating Current
Introduces basic AC circuits, specifically introductory magnetism and basic AC theory. Emphasizes design, construction, and troubleshooting of simple AC circuits in laboratory exercises. Pre-requisite: (ELT 1103 with a grade of C or better) or Consent of Instructor. Lecture: 0.6 credits (9 contact hours). Lab: 0.4 credits (12 contact hours).
Components: Laboratory, Lecture

EM 227(3) Course ID:000642
Capacitance and Inductance
Introduces basic AC circuits, specifically capacitance, inductance and transformer principles. Emphasizes design, construction, and troubleshooting of simple AC circuits in laboratory exercises. Pre-requisite: (ELT 1104 with a grade of C or better) or Consent of Instructor. Lecture: 0.6 credits (9 contact hours). Lab: 0.4 credits (12 contact hours).
Components: Laboratory, Lecture

EM 228(3) Course ID:000548
Digital Basics
Introduces basic digital circuits, specifically number systems and input output functions of gates and circuits. Pre-requisite: Consent of Instructor. Lecture: 0.66 credits (10 contact hours). Lab: 0.34 credits (10 contact hours).
Components: Laboratory, Lecture

EM 229(3) Course ID:000549
Logic Circuit Design
Introduces design methods for basic digital circuits. Pre-requisite: (ELT 1201 with a grade of C or better) or Consent of Instructor. Lecture: 0.67 credits (10 contact hours). Lab: 0.33 credits (10 contact hours).
Components: Laboratory, Lecture

EM 230(3) Course ID:000550
Logic Circuit Components and Troubleshooting
Introduces logic design, troubleshooting and testing of logic circuits. Pre-requisite: (ELT 1201 with a grade of C or better) or Consent of Instructor. Lecture: 0.67 credits (10 contact hours). Lab: 0.33 credits (10 contact hours).
Components: Laboratory, Lecture

EM 231(3) Course ID:000463
Statics
Study of forces on bodies at rest. Vector algebra; study of force systems; equivalent force systems; distributed forces; internal forces; principles of equilibrium; application to trusses, frames and beams; and friction. Pre-requisite or concurrent: MA 215. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other
EMS 105(6) Course ID:007303
Emergency Medical Technician - EMT
Provides the first level of training in the career structure of Emergency Medical Services. Integrates didactic course material and the lab component necessary for the delivery of entry level emergency medical care to individuals who are experiencing a disruption in normal body functions due to illness and/or injury and require intervention to prevent morbidity and mortality. Prepares the student to sit for the National Registry EMT examination that is required for Kentucky certification as an EMT. Focuses on basic anatomy and physiology, scene and patient assessment, airway and ventilation, cardiovascular and body systems support, motion limiting devices, wound and fracture management, administration of basic patient medications, excretion, transportation, and patient monitoring as well as medicolegal aspects and ambulance operations. Includes a minimum twenty-four (24) hour clinical observation in the emergency department and/or on a state licensed ambulance service. Pre-requisite: Minimum ACT Reading Score of 15 or Consent of Instructor.
Components: Lecture
Attributes: Technical
EMS 150(5) Course ID:016094
Electrocardiogram Technology
Designed for students wanting to work in doctor’s offices, hospitals, cardiac clinics, or anywhere electrocardiograms need to be performed. Integrates comprehensive knowledge of the anatomy of the heart including conduction pathways, circulatory system, and mechanical function. Presents the medical terminology, pathophysiology related to cardiac crisis, arrhythmia recognition and 12-lead interpretation. Pre-requisite: Reading, English, and Mathematics assessment exam scores above KCTCS developmental level or successful completion of the prescribed developmental courses. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (45 contact hours). Clinical: 1.0 credit (45 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Technical
EMS 200(4) Course ID:007304
Introduction to Paramedicine
Integrates comprehensive knowledge of EMS Systems including: safety and wellness, communications, medical/legal issues, life span parameters, public health, medical terminology, pathophysiology, anatomy and physiology, critical thinking, and physical assessment and research to improve the health and well-being of individuals. Pre-requisite: EMS 105 or FRS 2061 or current unrestricted state certification or validated National Registry status as EMT eligible and Program Admission. AHS 115 or CLA 131 Or Consent of Instructor. BIO 135 Or Consent of Instructor. Co-requisite: EMS 211. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical
EMS 201(6) Course ID:017262
Principles of Paramedicine I
Incorporates aspects of EMS Systems, safety and wellness, communications, medical/legal issues, life span parameters, public health, medical terminology, pathophysiology, physical assessment and research. Introduces students to the paramedics role and responsibilities of medication administration and the basic principles of pharmacology. Pre-requisite: FRS 2061, EMS 105, unrestricted certification or validated National Registry status as EMT eligible, and Program Admission OR consent of instructor. Lecture: 6 credit hours (90 contact hours).
Components: Lecture
Attributes: Technical
EMS 202(5) Course ID:017263
Principles of Paramedicine II
Incorporates all aspects of medical emergencies including anatomy, physiology, and pathophysiologies. Covers medical emergencies involving the respiratory system, nervous system, abdominal and gastrointestinal tracts, genitourinary and renal systems, gynecology, musculoskeletal system, eyes, ears, nose, throat, immunology, infectious diseases, the endocrine system, psychiatric conditions, toxicology, and hematology. Pre-requisite: FRS 2061, EMS 105, unrestricted certification or validated National Registry status as EMT eligible and Program Admission OR consent of instructor. Lecture: 5 contact hours (75 contact hours).
Components: Lecture
Attributes: Technical
EMS 203(1) Course ID:017264
Practicum I-Clinical
Applies didactic skills knowledge to the patient care in a hospital. Supervised by a registered nurse, nurse practitioner, physician, or paramedic preceptor in an environment that includes an instructional and evaluative phase. EMS 203 Practicum I and EMS 206 Practicum II are interchangeable with the second course building on the first course. Pre-requisite: FRS 2061, EMS 105, unrestricted certification or validated National Registry status as EMT eligible and Program Admission OR consent of instructor. Clinical I 1 credit hour (45 contact hours).
Components: Clinical
Course Equivalents: EMS 215
Attributes: Technical
EMS 204(2) Course ID:017265
Paramedic Lab I
Provides fundamental skills in a lab setting. Applies skills to simulated patients. Covers a multitude of skills, including assessment and airway. Labs are interchangeable between EMS 214 Paramedic Lab I, EMS 207 Paramedic Lab II, and EMS 209 Paramedic Lab III and builds on knowledge of the previous. Pre-requisite: FRS 2061, EMS 105, unrestricted certification or validated National Registry status as EMT eligible and Program Admission OR consent of instructor. Laboratory: 2 credit hours (60 contact hours).
Components: Laboratory
Course Equivalents: EMS 211
Attributes: Technical
EMS 205(6) Course ID:017298
Principles of Paramedicine III
Includes a study of cardiovascular emergencies, anatomy and physiology, pathophysiology, cardiac interventions, arrhythmia recognition, and 12-lead ECG for field diagnosis, as well as pharmacological and electrical interventions. Provides knowledge to assess and manage sick patients across the human life span including obstetrics, neonatology, pediatrics, geriatrics, and special challenges topics. Pre-requisite: Emergency Medical Technician or consent of instructor. Lecture: 6 credits (90 contact hours).
Components: Lecture
Attributes: Technical
EMS 206(3) Course ID:017299
Practicum II-Clinical
Applies didactic skills knowledge to the patient care in a hospital. Supervised by a registered nurse, nurse practitioner, physician, or paramedic preceptor in an environment that includes an instructional and evaluative phase. EMS 203 Practicum I and EMS 206 Practicum II are interchangeable with the second course building on the first course. Pre-requisite: Emergency Medical Technician or consent of instructor. Clinical: 3 credits (135 contact hours).
Components: Clinical
Attributes: Technical
EMS 207(1) Course ID:017300
Paramedic Lab I
Provides fundamental skills in a lab setting. Students are able to apply skills to simulated patients. A multitude of skills are covered including assessment and airway. Labs are interchangeable between EMS 204 Paramedic Lab I, EMS 207 Paramedic Lab II, and EMS 209 Paramedic Lab III and builds on knowledge of the previous. Pre-requisite: Emergency Medical Technician or consent of instructor. Lecture: 1 credit hour (30 contact hours).
Components: Laboratory
Attributes: Technical
EMS 208(6) Course ID:017325
Principles of Paramedicine IV
Provides concepts of for out-of-hospital assessment, treatment, and field management of the trauma patient. Includes knowledge to manage disasters, multi-casualty incidents and rescue situations, utilize air medical resources, identify hazardous materials, perform vehicle extrication, and minimize the associated risks related to terrorism. Pre-requisite: Emergency Medical Technician or consent of instructor. Lecture: 6 credits (90 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
EMS 209(2) Course ID:017326
Paramedic Lab III
Provides fundamental skills in a lab setting. Student are able to apply skills to simulated patients. A multitude of skills are covered including assessment and airway. Labs are interchangeable between EMS 204 Paramedic Lab I, EMS 207 Paramedic Lab II, and EMS 209 Paramedic Lab III and builds on knowledge of the previous. Pre-requisite: Emergency Medical Technician or consent of instructor. Lab: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Technical
EMS 210(3) Course ID:007305
Emergency Pharmacology
Introduces students to the paramedic’s role and responsibilities of medication administration and the basic principles of pharmacology. Presents introductory core concepts of pharmacology including drug classifications, schedules, categories, delivery systems, calculations, and drug administration. Covers core concepts of emergency clinical pharmacology including major body systems, illness and injury, and methods drugs are used therapeutically to manage affected individuals. Integrates appropriate anatomy and physiology, medical terminology, and ethical and legal behaviors. Pre-requisite: EMS 200. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
EMS 211(2) Course ID:007306
Fundamentals Lab
Encourages both an individual and group approach to simulated patient care in the laboratory setting. Includes fundamental skill sets such as patient assessment, airway and ventilation, and IV and fluid therapy. Co-requisite: EMS 200. Lab: 2.0 credits (30 contact hours).
Components: Laboratory
Course Equivalents: EMS 285
Attributes: Technical
EMS 212(4) Course ID:017327
Practicum III-Field
Applies advanced didactic knowledge, psychomotor skills, and clinical instruction in the EMS field setting. Supervised by a paramedic preceptor in an environment that is instructional and evaluative. Pre-requisite: Emergency Medical Technician or consent of instructor. Practicum: 4 credits (360 contact hours).
Components: Practicum
Course Equivalents: EMS 285
Attributes: Technical
EMS 213(2) Course ID:017328
Principles of Paramedicine V
Provides the opportunity for application and review of didactic knowledge and psychomotor skills in preparation for psychomotor and cognitive testing. Pre-requisite: Emergency Medical Technician or consent of instructor. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical
EMS 214(6) Course ID:015876
Paramedic Theory for Registered Nurses (RNs)
Provides the Registered Nurse with specialized knowledge and skills necessary to assess and manage ill and/or injured patients in the pre-hospital setting. Areas of specialized instruction include: pre-hospital environments, preparatory skills, airway management, patient
assessment, trauma and medical patient management, obstetrical/gynecological conditions, pediatric and neonatal care, psychiatric and behavioral emergencies, and special considerations. Pre-requisite: Must be a registered nurse and EMT. Lecture/Lab: 6.0 credits (120 contact hours).

Components: Lecture
Attributes: Technical

EMS 215(1) Course ID:007307
Clinical Experience I
Applies didactic knowledge, psychomotor skills, and laboratory instruction with the realities of patient care in the hospital and field setting. Includes supervision by a registered nurse, nurse practitioner, physician, or paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program focusing on the ambulance and field setting and the emergency department. Pre-requisite: EMS 211. Clinical: 1.0 credit (60 contact hours).

Components: Clinical
Course Equivalents: EMS 203
Attributes: Technical

EMS 220(3) Course ID:007308
Cardiovascular Emergencies
Provides a detailed study of cardiovascular emergencies and the assessment and management of patients requiring critical intervention. Includes anatomy and physiology, medical terminology, pathophysiology related to cardiac crisis, arrhythmia recognition and 12-lead ECG for field diagnosis, as well as pharmacological and electrical interventions. Pre-requisite: EMS 210 and EMS 211. Co-requisite: EMS 221. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

EMS 221(1) Course ID:007309
Cardiac and Trauma Lab
Designed to encourage both an individual and group approach to simulated patient care in the laboratory setting. Includes fundamental skill sets and the addition of cardiovascular and trauma emergency patient care and management. Co-requisite: EMS 220 and EMS 230. Lab: 1.0 credit (45 contact hours).

Components: Laboratory
Attributes: Technical

EMS 225(1) Course ID:007310
Clinical Experience II
Provides the opportunity for application of didactic knowledge, psychomotor skills, and laboratory instruction with the realities of patient care in the hospital setting. Supervised by a registered nurse, nurse practitioner, physician, or paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program with a focus on the emergency department, operating room, and respiratory care. Pre-requisite: EMS 215. Clinical: 1.0 credit (60 contact hours).

Components: Clinical
Attributes: Technical

EMS 230(4) Course ID:007311
Traumatic Emergencies
Presents the advanced concepts of out-of-hospital trauma care and critical thinking activities leading to formulation of a field impression and implementation of an appropriate treatment 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 260. Lab: 1.0 credit (45 contact hours).

Components: Laboratory
Attributes: Technical

EMS 235(2) Course ID:007313
Clinical Experience III
Provides the opportunity for application of didactic knowledge, psychomotor skills, and laboratory instruction with the realities of patient care in the hospital setting. Supervised by a registered nurse, nurse practitioner, physician, or paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program focusing on the emergency department, obstetric unit, mental health facility, and pediatric units. Pre-requisite: EMS 225. Clinical: 2.0 credits (120 contact hours).

Components: Clinical
Attributes: Technical

EMS 240(3) Course ID:007314
Medical Emergencies I
Provides an understanding of the anatomic structures, physiology, and pathophysiology encountered during assessment and the provision of care for medical emergencies involving the respiratory system, nervous system, abdominal and gastrointestinal tracts, genitourinary and renal systems, gynecology, musculoskeletal system, and the eyes, ears, nose, and throat. Co-requisite: EMS 231. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

EMS 250(3) Course ID:007315
Medical Emergencies II
Provides an understanding of the anatomic structures, physiology, and pathophysiology encountered during assessment and the provision of care for medical emergencies encompassing immunology, infectious disease including HIV/AIDS, the endocrine system, psychiatric conditions, toxicology, and hematology. Pre-requisite: EMS 240. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

EMS 260(3) Course ID:007316
Special Populations
Provides the opportunity to develop special knowledge and skills necessary to assess and manage II and in injured patients across the human life span. Focuses on the acquisition of clinical knowledge and skills in diverse populations that include obstetrics, neonatology, pediatrics, geriatrics, and special challenge topics. Pre-requisite: EMS 250. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

EMS 270(1) Course ID:007317
EMS Operations
Provides knowledge necessary to safely manage multi-casualty incidents and rescue situations, utilize air medical resources, identify hazardous materials, perform vehicle extrication, and minimize the associated risks related to terrorism and disaster. Lecture: 1.0 credits (15 contact hours).

Components: Lecture
Attributes: Technical

EMS 275(1) Course ID:007318
Seminar in Advanced Life Support (ALS)
Presents a comprehensive course encompassing advanced cardiac life support and pediatric advanced life support, or trauma life support, or other seminar course in relative subject matter such as medical emergencies or geriatric emergencies, to enhance the knowledge and skills acquired in the paramedic program. Addresses immediate life threatening conditions and critical interventions in a case study-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
Course Equivalents: EMS 212
Attributes: Technical

EMS 280(1) Course ID:017615
Principles of Paramedicine IV Part I
Provides concepts for out-of-hospital assessment, treatment, and field management of the trauma patient. Because EMS 2801 and EMS 2802 are interchangeable, this course can be taken before or after EMS2081. Pre-requisite: Emergency Medical Technician or consent of instructor. Lecture: 4 credits (60 contact hours).

Components: Lecture

EMS 280(2) Course ID:017616
Principles of Paramedicine IV Part 2
Provides concepts for managing disasters, multi-casualty incidents and rescue situations, utilize air medical resources, identify hazardous materials, perform vehicle extrication, and minimize the associated risks related to terrorism. Because EMS 2801 and EMS 2802 are interchangeable, this course can be taken before or after EMS2081. Pre-requisite: Emergency Medical Technician or consent of instructor. Lecture: 2 credits (30 contact hours).

Components: Lecture

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. Laboratoy: 1.0 credit (45 contact hours). Practicum: 2.0 credits (180 contact hours).

Components: Laboratory, Practicum

ENC English Composition

ENC 090(3) Course ID:000464
Foundations of College Writing I
Introduces students to writing as a process with an emphasis on paragraph-length assignments and writing in response to reading. Stresses basic conventions of standard English as these apply to students' own work as well as the use of technology to produce and share writing. Pre-requisite: Placement by KCTCS assessment and placement policy. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Remedial - English and Writing, Course Also Offered in Modules

ENC 091(3) Course ID:000465
Foundations of College Writing II
Applies writing as a process with instruction in intermediate writing skills and technology. Stresses organization, idea development through critical thinking, and editorial improvement through multi-paragraph introductions. Introduces basic research and documentation through writing in response to reading. Pre-requisite: Placement by KCTCS Assessment and Placement policy. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Remedial - English and Writing, Course Also Offered in Modules
ENC 096(4) Course ID:016247
Introduction to College Writing
Introduces and applies writing as a process, beginning with basic writing skills and paragraph length assignments and moving toward intermediate writing skills and multi-paragraph assignments. Stresses application of basic conventions of standard English. Emphasizes organization, topic development through critical thinking, editorial improvement through systematic revision, and the use of technology to produce and share writing. Introduces basic research and documentation through writing in response to reading. Pre-requisite: Placement by KCTCS Assessment and Placement Policy. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing

ENG 090(0.25) Course ID:006746
Sentence Basics
Introduces the basic conventions of standard English as these apply to students\' own writing. Pre-requisite: As determined by KCTCS Placement Policy. Lecture: 1.0 credit (15 contact hours)
Components: Lecture
Attributes: Remedial - English and Writing

ENG 090(0.75) Course ID:006748
Writing Paragraphs
Introduces the writing process with an emphasis on paragraph-length assignments. Pre-requisite: As determined by KCTCS Placement Policy or successful completion of ENC 0902. Lecture: 0.75 credits (11.25 contact hours)
Components: Lecture
Attributes: Remedial - English and Writing

ENC 0904(1) Course ID:006747
Pathway to Writing
Provides practice in the writing process and stresses effective paragraphs with emphasis placed on writing in response to reading. Pre-requisite: As determined by KCTCS Placement Policy or successful completion of ENC 0903. Lecture 1.0 credit (15 contact hours)
Components: Lecture
Attributes: Remedial - English and Writing

ENC 0911(0.75) Course ID:006750
Intermediate Grammar
Introduces intermediate writing skills and editorial improvement, stressing the conventions of standard written English. Pre-requisite: As determined by KCTCS Placement Policy or successful completion of ENC 090. Lecture 0.75 credits (11.25 contact hours)
Components: Lecture
Attributes: Remedial - English and Writing

ENC 0912(1) Course ID:006751
Composition Strategies
Provides practice in the writing process, stressing organization, idea development, and editorial improvement. Pre-requisite: As determined by KCTCS Placement Policy or successful completion of ENC 0911. Lecture: 1 credit (15 contact hours)
Components: Lecture
Attributes: Remedial - English and Writing

ENC 0913(0.25) Course ID:006752
Introduction to Research
Introduces basic research and documentation through writing in response to reading. Pre-requisite: As determined by KCTCS Placement Policy or successful completion of ENC 0912. Lecture: 0.25 credits (3.75 contact hours)
Components: Lecture
Attributes: Remedial - English and Writing

ENG 0914(1) Course ID:006753
Writing as Process
Provides practice in the writing process, stressing organization, idea development, and editorial improvement. Pre-requisite: As determined by KCTCS Placement Policy or successful completion of ENC 0913. Lecture: 1.0 credit (15 contact hours)
Components: Lecture
Attributes: Remedial - English and Writing

ENG 100(2) Course ID:004574
English Workshop
Provides parallel and supplemental review of English skills needed for students with an English ACT of 18 or 19 or a Compass placement test score between 70-80 who are also enrolled in ENG 101. If these students withdraw from ENG 100, they must also withdraw from ENG 101. Credit cannot be received by special exam. Pre-requisite: Placement by KCTCS Assessment and Placement Policy. Lecture: 2 credits (30 contact hours)
Components: Lecture
Attributes: Other, Supplemental English/Writing

ENG 101(3) Course ID:000467
Writing I
Focuses on academic writing. Provides instruction in drafting and revising essays that express ideas in Standard English, including reading critically, thinking logically, responding to texts, addressing specific audiences, researching and documenting sources. Includes review of grammar, mechanics and usage. Notes: (a) credit not available by special examination; (b) English 101 and 102 may not be taken concurrently; (c) AP credit in the English Language and Composition category for ENG 101 awarded as indicated by AP scoring chart in current KCTCS catalog. Pre-requisite: Placement by KCTCS Assessment and Placement Policy. Lecture: 3 credits (45 contact hours)
Components: Lecture
Attributes: Other, Writing

ENG 102(3) Course ID:000468
Writing II
Focuses on research writing. Provides further instruction in drafting and systematically revising essays that express ideas in Standard English. Includes continued instruction and practice in reading critically, thinking logically, responding to texts, addressing specific audiences, and researching and documenting credible academic sources. Note: Credit is not available by special examination. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours)
Components: Lecture
Attributes: Other, Writing

ENG 105(3) Course ID:000469
Instructor Consent Required Writing: An Accelerated Course
Combines the content of ENG 101 and ENG 102 in an intensive course emphasizing argumentation and library research and fulfills the writing/reading information requirements. Pre-requisite: ACT English score of 25 or COMPASS English score of 85 AND ACT Reading score of 20 or COMPASS reading score of 90. Lecture: 3 credits (45 contact hours)
Components: Lecture
Attributes: Other, Written Communication

ENG 107(3) Course ID:016136
Writing Craft: Introduction to Imaginative Writing
Introduces the genres and craft of imaginative writing. Includes fiction, nonfiction, and poetry. Students will study and practice writing in various modes through composition, peer critique, and research. Lecture and workshop. Fulfills ENG pre-major requirement and provides ENG minor credit. Lecture: 3 credits (45 contact hours)
Components: Lecture
Attributes: AH - Arts and Humanities, University Course (University of Kentucky)
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 significant theme. Examines selected texts revolving around a single theme, teaching students how to relate texts to contexts, to read closely, and to use basic literary terms and concepts. Considers student writing, particularly devising a thesis, crafting an argument, and learning how to use supporting evidence. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ENG 231(3) Course ID: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 multithematic, 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: Cultural Studies, AH - Arts and Humanities

ENG 270(3) Course ID:000491
The Old Testament as Literature
Surveys the major types of Old Testament literature in English translation. Examines historical backgrounds while emphasizing careful analysis of literary forms and 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 technique. 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: AH - Arts and Humanities

ENG 282(3) Course ID:000497
International Film Studies
Enhances student awareness of how cinema has been used as a multicultural tool for observing/analyzing various aspects of a broad range of societies. Includes critical analysis and interpretation of films from various cultures. Explores the films’ countries of origin and the cinematic impacts upon the society and the world. Lecture: 3 credits (45 contact hours).
Components: Lecture
Course Equivalents: HUM 282
Attributes: AH - Arts and Humanities

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:005787
Writing a Profile Essay
Focuses on academic writing. Provides instruction in reading critically, thinking logically, and responding to texts as a means of planning, drafting and revising essays that express thoroughly developed ideas in Standard English. Pre-requisite: Placement by KCTCS Assessment and Placement Policy at College Readiness Level. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture

ENG 1012(0.75) Course ID:005788
Writing to Persuade
Focuses on academic writing. Provides review and instruction in formal academic writing conventions, at the work, sentence, paragraph and essay levels. Pre-requisite: ENG 1012. Lecture: 0.75 credits (11.25 contact hours)
Components: Lecture

ENG 1014(0.75) Course ID:005790
Writing with Sources
Focuses on academic writing. Provides instruction in reading critically, thinking logically, responding to texts, addressing specific audiences, researching and documenting sources. Pre-requisite: ENG 1013. Lecture: 0.75 credits (11.25 contact hours)
Components: Lecture

ENG 1021(1) Course ID:005791
The Language of Argument
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 and practice in the primary elements of academic writing style, including word choice, evidence selection and organization. Pre-requisite: ENG 1021. Lecture: 1 credit (15 contact hours)
Components: Lecture

ENG 1023(1) Course ID:005793
Research and Argument
Emphasizes argumentative writing. Provides instruction in researching, proposing and revising an argumentative position, gathering and synthesizing research findings in support and documenting sources appropriately. Pre-requisite: ENG 1022. Lecture: 1 credit (15 contact hours)
Components: Lecture

ENG 2031(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
ENG 2032(1) Course ID:015860 Specialized Business Messages Enhances students' skills in business writing through exploration of specialized business messages and modes, including writing for job search, technology-enabled writing, and writing for oral delivery. Pre-requisite: ENG 2031. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
ENG 2033(1) Course ID:015861 Reports and Proposals Emphasizes lengthy and complex business messages, specifically researching for and writing business reports and business proposals. Pre-requisite: ENG 2032. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

ENM Energy Management

ENM 101(9) Course ID:007242 Energy Industry Fundamentals Investigates competencies required for employment by various industries that manufacture energy sources. Introduces students to methods of power production, power distribution, and physics principles that are associated with both, and addresses competencies identified by the Center for Energy Workforce Development (CEWD) organization needed for power industries. Qualifies the student to take the CEWD Energy Industry Fundamentals Certification exam. Lecture/Lab: 9.0 credits (150 contact hours).
Components: Lecture Attributes: Technical
ENM 111(3) Course ID:007243 Sustainability Management Examines the management of corporations as it relates to sustainability. Includes an overview of energy technology, energy resources, and emerging future energy technologies coupled with social and environmentally related legislation and its effect on corporations triple bottom line (people, profit, and planet. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical
ENM 121(3) Course ID:007244 Solar Design and Applications Educates students about alternative solar energy applications which will contribute to a reduction in fossil fuel energy usage and increase cost savings related to conventional energy consumption. Additionally, the course serves to satisfy the competencies needed to qualify students to complete the North American Board of Certified Energy Practitioners (NABCEP) Entry Level Solar Certification. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture Attributes: Technical
ENM 200(3) Course ID:007219 Commercial Energy Analysis Examines ways to improve the energy efficiency of commercial buildings. Emphasizes the building envelope, lighting, HVAC, motors, appliances, water, electrical, and compressed air systems and their controls with a focus on an energy management system. Examines energy savings and reductions in operational expenses, commercial energy compliance needed will be used. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture Attributes: Technical
ENM 210(3) Course ID:007220 Smart Grid Applications Introduces students to the components needed to renovate the current vertical structured power grid to a smart highway structure power grid that will allow energy to flow in different directions. Focuses on the application of different components within a smart grid system and how they integrate and communicate with each other for smooth transmission of electricity. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

ENV Environmental Technology

ENV 230(3) Course ID:007221 Building Automation Introduces students to the components involved in a building automated system (BAS). Investigates the communication and components contained in an integrated building system that controls various components of a building system. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture Attributes: Technical
ENV 250(3) Course ID:007222 Regulatory and Environmental Issues in Energy Management Examines 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
ENV 260(3) Course ID:007223 Air Conditioning and Refrigeration Regulations Analyzes the regulations associated with the 608 EPA certification. Outlines techniques and regulations associated with EPA policies. Complements other proposed energy management courses providing additional skills needed for energy efficient buildings. Qualifies students to take the 608 EPA Certification Examination at the completion of the course. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

EQM Equine Management

EQM 100(3) Course ID:004755 Introduction to Equine Studies The intent of this course is to give students a general overview and basic understanding of the horse, its care and management. Course topics include identification, anatomy, health, nutrition, facility and equipment management. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical
EQM 120(3) Course ID:004756 Introduction to Commercial Breeding Practices Introduces prospective horse farm personnel to the breeding farm environment. Includes topics that relate to commercial breeding farm management and the necessary record keeping requirements. Pre-requisite: EQM 100 or consent of instructor. Lecture: 3.0 credits (45 contact hours)
Components: Lecture Attributes: Technical
EQM 140(2) Course ID:004757 Equine Business Management I Course in equine management that serves to introduce the student to private and commercial horse farm operations, economic trends in the horse industry, international marketplace, capital, credit and risk associated with the equine industry. Pre-requisite: EQM 100 and BA 160, or consent of instructor. Lecture: credits (30 contact hours).
Components: Lecture Attributes: Technical
EQM 240(2) Course ID:004852 Equine Business Management II This course is a continuation of Equine Business Management I. Topics of discussion include types of farm ownership, structure of the horse farm as a business, and evaluation of farm financial performance through production levels, employee management, tax planning, bloodstock value, cash flow and budgeting. Pre-requisite: EQM 140 and concurrent enrollment in or successful completion of ACC 201 and ECO 201, or consent of instructor. Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Technical

EQM 242(3) Course ID:004758 Equine Law This course explores the value of legal documents as they relate to commercial and recreational horse/horse farm owners. Topics discussed include review of current legislation governing horse activities, types of legal contracts, liability issues, and security interests. Pre-requisite: EQM 100 and BA 267, or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical
EQM 246(1) Course ID:004759
Current Trends in the Equine Industry
Seminar course in the horse industry designed to provide students with the opportunity to investigate, evaluate and debate key issues confronting horse owners and horse industry participants. Students are encouraged to analyze controversial circumstances in the equine industry and provide insight and logical conclusion. Seminar topics may include such issues as equine adoption, slaughter, transport, medications, account wagering, and public image. Pre-requisite: EGM 242 or consent of instructor. Lecture 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical

EQM 250(3) Course ID:004760
Equine Practicum
A supervised, field-based learning experience in the equine industry, including observation and proactive participation in affiliated environments. Students are required to analyze their experiences throughout the semester to develop career objectives and strong interpersonal, communication and leadership skills. Pre-requisite: EGM 240; EGM 242; and concurrent enrollment in or successful completion of EQM 246. Practicum: 3 credits (180 contact hours).
Components: Practicum
Attributes: Technical

EQS Equine Studies

EOS 115(3) Course ID:015655
Equine Health and Medications
Presents principles of health management as it relates to the prevention and treatment of common diseases, parasites and wounds. Pre-requisite: EOS 110 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EOS 118(3) Course ID:005803
Equine Bloodstock
Emphasizes skills in comprehending a sales page, marketing and preparing horses for sales, breeding and bloodline interpretation, and prospect analysis. Lecture: 3 credits.
Components: Lecture
Attributes: Technical

EOS 125(3) Course ID:005804
Equine Nutrition
Presents principles of nutritional management as it relates to the overall health and performance of the horse. Pre-requisite: EOS 110 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EOS 130(3) Course ID:005354
Introduction to the Racing Industry
Introduces students to the racing industry organizations, personnel, facilities and the rules of racing. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EOS 190(3) Course ID:005500
Lameness in Racehorses
Explores concepts of goal setting, time management, marketing principles and practices, marketing training aids and equipment as well as identification and application of equine support and medicated bandages commonly used for horses in training. Pre-requisite or Co-requisite: EOS 104. Lecture/Lab: 4.0 credit (150 contact hours).
Components: Lecture
Attributes: Technical

EOS 223(4) Course ID:005507
Instructor Consent Required
Life Skills for Horsemen
Explores concepts of goal setting, time management, marketing principles and practices, marketing training aids and equipment as well as identification and application of equine support and medicated bandages commonly used for horses in training. Pre-requisite or Co-requisite: EOS 222 and permission of instructor. Lecture: 3 credits (45 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 299(1 - 9) Course ID:005626
Equine Studies Cooperative Education
Provides a planned and evaluated work experience related to the student's educational objective for which the student receives both financial remuneration and academic credit. While the maximum amount of credit granted for Equine Studies Cooperative Education experience varies by curriculum, the amount may never exceed nine hours in Associate in Applied Science Degree, diploma, or certificate program. Is available only to students enrolled in Associate in Applied Science in Equine Studies. Equine Studies Diploma and certificate program that list Equine Cooperative Education as an approved course. Pre-requisite: Consent of Instructor. Co-op: 1.0 - 9.0 credits (60 - 540 contact hours).
Components: Co-Op
Attributes: Technical

ESL English as a Second Language

ESL 101(4) Course ID:006638
Reading Improvement and Vocabulary Development
Introduces low-intermediate and high-intermediate ESL students to academic listening and speaking skills. Low-intermediate level ESL students will improve reading and vocabulary as they interact with peer and authentic texts. High-intermediate level ESL students will improve academic listening and speaking skills 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: Remedial - Reading

ESL 102(4) Course ID:005230
Intermediate Listening and Speaking
Low-intermediate level ESL students will improve comprehension and communication in English on a variety of everyday topics and in the academic setting. Students will develop and practice techniques for greater composure and confidence in oral expression. Practice will also be provided in pronunciation and intonation. Students will be recommended to this course based on the ESL placement examination or through completion of ESL 11. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Developmental/Remedial Learning Skills

ESL 103(4) Course ID:005307
Advanced Listening and Speaking
High-intermediate level ESL students will improve comprehension and communication in both social and academic settings. Instruction will include improving listening skills for academic note taking and small group discussion. Students will be expected to lead and share in class discussions based on reading and authentic listening materials. Students will also present orally in front of the class. Students will be recommended to this course based on the ESL placement examination or through completion of ESL 12. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Developmental/Remedial Learning Skills

ESL 020(4) Course ID:005216
Reading Improvement and Vocabulary Development for Low-Intermediate Non-Native English Speakers
Low-intermediate level students will review fundamental reading skills, learn and practice higher order reading skills, expand vocabulary and increase reading efficiency as they interact with level-appropriate texts. Pre-requisite: placement test. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Remedial - Reading
HIGH INTERMEDIATE NON-NATIVE SPEAKERS

**ESL 030(4)** Course ID:005078
College Reading and Vocabulary Development for High-Intermediate Non-Native English Speakers
High-intermediate level ESL students will master fundamental reading skills, improve critical reading, and further vocabulary development. Students will be introduced to a variety of genres, such as newspaper articles and essays, poems, short stories, charts, graphs and college-level content textbooks. Through the selected readings, this course will foster cultural awareness, comprehension, and interaction. The readings and activities introduced in the course will allow students to engage in meaningful dialogue, and in the process, refine their English skills. Pre-requisite: ESL 020 or placement test. Lecture: 4 credits (60 contact hours).

Components: Lecture
Attributes: Developmental/Remedial Learning Skills

**ESL 031(3)** Course ID:004037
Beginning Conversation for Non-Native English Speakers
Beginning level ESL students will learn basic conversation and practice basic sounds and intonation patterns. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Developmental/Remedial Learning Skills, Course Also Offered in Modules

**ESL 051(3)** Course ID:004043
Introduction to College Reading for Non-Native English Speakers
Beginning-level students will acquire or strengthen fundamental reading skills and expand vocabulary as they interact with level-appropriate texts. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Remedial - Reading

**ESL 052(3)** Course ID:004044
Improved College Reading for Low-Intermediate Non-Native Speakers
Intermediate-level students will review fundamental reading skills, learn and practice higher order reading skills, expand vocabulary and increase reading efficiency as they interact with level-appropriate texts. Pre-requisite: ESL 51. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Remedial - Reading

**ESL 053(3)** Course ID:004045
High-Intermediate Reading for Non-Native English Speakers
High-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. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Remedial - Reading

**ESL 061(4)** Course ID:004046
Foundations of College Writing I for Non-Native English Speakers
Beginning level ESL students are introduced to composition with an emphasis on clarity, organization, development and correctness. Comprehensive review of mechanics, grammar and spelling as these apply to their own writing is also addressed in this course. Lecture: 4 credits (60 contact hours).

Components: Lecture
Attributes: Remedial - English and Writing

**ESL 062(4)** Course ID:004047
Foundations of College Writing II for Non-Native English Speakers
Low-intermediate level ESL students continue to enhance their composition skills by receiving instruction in the following: the writing process, organization, multi-paragraph writings, editing, and critical reading. Grammar instruction focuses on key structures and provides a springboard for expanding students’ abilities in all language skills. Pre-requisite: ESL 61. Lecture: 4 credits (60 contact hours).

Components: Lecture
Attributes: Remedial - English and Writing

**ESL 063(4)** Course ID:004048
Foundations of College Writing III for Non-Native English Speakers
ESL 63 is designed to help students prepare for ENG 101. High-intermediate level ESL students continue to work on the writing process, editorial improvement and critical reading. Grammar instruction includes advanced grammatical points, such as modal auxiliaries, gerunds, infinitives, adjective and noun clauses. Pre-requisite: ESL 62 or placement test. Lecture: 4 credits (60 contact hours).

Components: Lecture
Attributes: Remedial - English and Writing

**ESL 071(3)** Course ID:007210
College Writing I for Non-Native Speakers
Introduces writing modes, including description, narration, process, and persuasion; presents methods of pre-writing; emphasizes development of thesis statements, topic support, and organization; describes basic concepts of verb tense and syntax. Credit is not given to students who have received credit for ESL 61. Pre-requisite: Placement According to KCTCS Assessment and Placement Policy. Lecture: 3.0 credit hours (45 contact hours).

Components: Lecture
Attributes: Remedial - English and Writing

**ESL 072(3)** Course ID:007046
College Writing II for Non-Native Speakers
Introduces writing modes, including description, narration, comparison and contrast, cause and effect, process, and persuasion; presents methods of pre-writing; emphasizes development of thesis statements, topic support, and organization; short essay organization is emphasized. A student cannot receive credit for both ESL 62 and ESL 72. Pre-requisite: Currently appropriate assessment scores and a writing sample or completion of ESL 71. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Remedial - English and Writing

**ESL 081(3)** Course ID:007211
College Grammar I for Non-Native Speakers
Introduces basic verb tenses, formation of questions, modals, clauses, and parts of speech to non-native speakers of English. Incorporates instructional methods that are designed for non-native speakers of English. Credit is not given to students who have received credit for ESL 61. Pre-requisite: Placement According to KCTCS Assessment and Placement Policy. Lecture: 3.0 credit hours (45 contact hours).

Components: Lecture
Attributes: Remedial - English and Writing

**ESL 082(3)** Course ID:007047
College Grammar II for Non-Native Speakers
Introduces intermediate-level verb tenses, formation of questions, modal verbs, clauses, count and non-count nouns, and parts of speech to non-native speakers of English. Incorporates instructional methods that are designed for non-native speakers of English. A student cannot receive credit for both ESL 82 and ESL 62. Pre-requisite: Currently appropriate assessment scores or completion of ESL 81. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Remedial - English and Writing

**ESL 090(4)** Course ID:005079
Beginning Writing
High-beginning level ESL students will learn composition skills by receiving instruction in the following: the writing process, organization, sentence development, paragraph writing, and editing. Basic instruction in grammar provided. Students will be recommended to this course based on the ESL placement examination. Lecture: 4 credits (60 contact hours).

Components: Lecture
Attributes: Remedial - English and Writing

**ESL 091(4)** Course ID:005080
Intermediate Writing for Non-Native English Speakers
Low-intermediate level ESL students will enhance their composition skills by receiving instruction in the following: the writing process, organization, multi-paragraph writings, editing, and critical reading. Basic instruction in grammar provided. Pre-requisite: placement test. Lecture: 4 credits (60 contact hours).

Components: Lecture
Attributes: Remedial - English and Writing

**ESL 092(4)** Course ID:005082
Advanced Writing for Non-Native English Speakers
ESL 92 is designed to help students prepare for ENG 101. High-intermediate level ESL students continue to work on the writing process, editorial improvement, and critical reading. Students will be introduced to documenting sources. Grammar instruction includes advanced grammatical points. Pre-requisite: ESL 91 or placement test. Lecture: 4 credits (60 contact hours).

Components: Lecture
Attributes: Remedial - English and Writing

**ESL 100(3)** Course ID:016566
Listening for Academic Purposes
This course cultivates skills to improve academic listening performance for non-native speakers of English enrolled in American university classes. Special attention is given to lecture styles, note-taking, interpersonal communication skills, research projects and presentations. This course is designed to help students listening skills so they can participate in academic settings with competencies similar to their native peers. Lecture: 3 credits.

Components: Lecture
Attributes: Enrichment ESL, University Course (University of Kentucky)

**ESL 110(3)** Course ID:016517
Speaking for Academic Purposes
This course cultivates skills to improve academic speaking performance for non-native speakers of English enrolled in American university classes. Special attention is given to effective academic presentations, interpersonal communication skills, pronunciation and accent. This course is designed to help students’ speaking skills so they can participate in academic settings with competencies similar to their native-speaker peers. Pre-requisite: KCTCS assessment instrument scores as shown in Mandatory Placement policy. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Enrichment ESL, University Course (University of Kentucky)

**ESL 120(3)** Course ID:016568
Reading for Academic Purposes
This course cultivates skills to improve academic reading performance for non-native speakers of English enrolled in American university classes. Special attention is given to cross-disciplinary academic reading, reading rates and speed, effective research methods, documentation and essay exams skills. This course is designed to help 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: Enrichment ESL, University Course (University of Kentucky)

ESP 0311(1)  Course ID:007396
ESL Greetings & Farewells
Highlights greetings and introductions, giving and receiving personal information, and making plans and discussing the future. Introduces expressing the future using the verb "to go." Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Developmental/Remedial Learning Skills

ESP Energy Systems

ESP 101(3)  Course ID:005324
Introduction to Energy Systems
Introduces energy generating systems including solar, wind, bioenergy, geothermal, hydroelectric, hydrogen-based, petroleum-based, coal, and nuclear. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ESP 213(3)  Course ID:005322
Power Plant Operations III
Provides detailed training in the operations of water, steam, turbines and generator systems of a coal-fired (fossil fueled) power plant stressing proper operation during normal operations, startups and shutdowns, and transient conditions. Pre-requisite: ESP 211 or consent of the instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ESP 214(3)  Course ID:005321
Power Plant Operations IV
Provides detailed training in the operation of the auxiliary components of a power plant, including valves, traps, actuators, pumps, couplings, air compressors, seals, lubrication systems, air ejectors, heat exchangers, and switches. Proper operation of each type of component and its function in the plant will be stressed. Pre-requisite: ESP 211 or consent of the instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ESP 220(3)  Course ID:005495
Power Plant Thermodynamics
Introduces basic thermodynamics concepts and the applications of thermodynamics in a fossil-fueled power plant. Pre-requisite: PHY 151 or higher. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ESP 280(2)  Course ID:005496
Capstone in Energy Systems
Serves as the capstone course for the Energy Systems program by integrating prior learning into a single integrated learning experience. Requires planning, research, and completion of both individual and team-based reports based on real-world problems or projects in the Energy Systems field. Pre-requisite: ESP 213. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course ID</th>
<th>Title</th>
<th>Attributes</th>
<th>Components</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIR 101(3)</td>
<td>Course ID: 017478</td>
<td>Basic Firefighting I</td>
<td>Lecture</td>
<td>Introduces students to topics such as: fire department organization, firefighter safety, building construction, fire dynamics, extinguishers, and ladders. Lecture: 3 hours (45 contact hours).</td>
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<tr>
<td>FIR 102(3)</td>
<td>Course ID: 017474</td>
<td>Basic Firefighting II</td>
<td>Course Also Offered in Modules, Technical</td>
<td>Introduces students to topics such as: personal protective equipment, fire hose practices, and ropes. Lecture 3.0 credits (45 contact hours).</td>
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<tr>
<td>FIR 106(3)</td>
<td>Course ID: 017492</td>
<td>Intro to Special Responses</td>
<td></td>
<td>Prepares students with basic knowledge to perform as a hazardous materials technician, as defined by National Fire Protection Association Standard 1002. Pre-requisite: Consent of Instructor. Lecture: 3 credits (45 contact hours).</td>
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<tr>
<td>FIR 206(3)</td>
<td>Course ID: 017535</td>
<td>Fire Officer II</td>
<td></td>
<td>Prepares students with basic knowledge to perform at the Fire Officer II Level, as defined by National Fire Protection Association Standard 1021. Pre-requisite: FIR 205 or Instructor Consent. Lecture: 3 credits (45 contact hours).</td>
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<tr>
<td>FIR 210(3)</td>
<td>Course ID: 017536</td>
<td>Aircraft Rescue Firefighting</td>
<td></td>
<td>Prepares students with basic knowledge to perform as an airport firefighter, as defined by National Fire Protection Association Standard 1003. Pre-requisite: Consent of Instructor. Lecture: 3 credits (45 contact hours).</td>
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<tr>
<td>FIR 213(3)</td>
<td>Course ID: 017538</td>
<td>Driver/Operator - Aerial</td>
<td></td>
<td>Prepares students with basic knowledge to perform as an aerial driver/operator, as defined by National Fire Protection Association Standard 1002. Pre-requisite: Instructor Consent. Lecture: 3 credits (45 contact hours).</td>
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<tr>
<td>FHM 100(2)</td>
<td>Course ID: 001463</td>
<td>Dosage Calculations</td>
<td></td>
<td>Provides an overview of basic math skills, a thorough knowledge of the system of measurement and conversion, and application of skills to perform dosage calculations. Emphasis is placed on unit analysis to calculate medication dosages. Lecture: 2 credits (30 contact hours).</td>
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<tr>
<td>FIR 215(3)</td>
<td>Course ID: 017539</td>
<td>Emergency Medical Responder</td>
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<td>Prepares students with basic knowledge to perform as an emergency medical technician at the emergency medical technician level as outlined in the United States Department of Transportation (USDOT) national standard curriculum. Lecture: 3 credits (45 contact hours).</td>
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<tr>
<td>FIR 220(3)</td>
<td>Course ID: 017540</td>
<td>Hazardous Materials Technician</td>
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<td>Prepares students with basic knowledge to perform as a hazardous materials technician, as defined by National Fire Protection Association Standard 1072. Pre-requisite: FIR 106 or FIR 1062 Hazardous Material Operations. Lecture: 3 credits (45 contact hours).</td>
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<tr>
<td>FHM 101(1)</td>
<td>Course ID: 0000666</td>
<td>Human Sexuality: Development, Behavior, and Attitudes</td>
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<td>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. Lecture: 3 credits (45 contact hours).</td>
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<tr>
<td>FIR 220(3)</td>
<td>Course ID: 017541</td>
<td>Driver/Operator - Pumper</td>
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<td>Prepares students with basic knowledge to perform as a pumper driver/operator, as defined by National Fire Protection Association Standard 1002. Pre-requisite: Instructor Consent. Lecture: 3 credits (45 contact hours).</td>
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<tr>
<td>FHM 102(2)</td>
<td>Course ID: 0014631</td>
<td>Special Topics in Fire Science</td>
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<td>Provides advanced study on a selected topic or emerging issue in the fire service. May be repeated to a maximum of six credits under different subtitles. Pre-requisite: Consent of Instructor. Lecture: 1 credit (15 contact hours).</td>
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<td>FIR 225(1 - 3)</td>
<td>Course ID: 017541</td>
<td>Emergency Medical Technician</td>
<td></td>
<td>Prepares students with basic knowledge to perform as an emergency medical technician at the emergency medical technician level as outlined in the United States Department of Transportation (USDOT) national standard curriculum. Lecture: 3 credits (45 contact hours).</td>
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<tr>
<td>FIR 230(6)</td>
<td>Course ID: 017542</td>
<td>Principles of Emergency Services</td>
<td></td>
<td>Provides an overview to fire protection and emergency services career opportunities in fire protection and related fields; culture and history of emergency services; fire loss analysis; and organization and function of public and private fire protection services. Lecture: 3 credits (45 contact hours).</td>
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FIR 261(3) Course ID:017544
Building Construction
Provides students with an introduction to construction, design of structures, and the components of building construction as related to firefighter and life safety. Pre-requisite or Co-requisite: FIR 260 or Instructor Consent. Components: Lecture Attributes: Technical
FIR 262(3) Course ID:017545
Fire Behavior and Combustion
Explores the theories and fundamentals of how and why fires start, spread, and how they are controlled. Pre-requisite or Co-requisite: FIR 260 or Instructor Consent. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: Technical
FIR 263(3) Course ID:017546
Fire Service Safety & Wellness
Introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavior change throughout the emergency services. Pre-requisite or Co-requisite: FIR 260 or Consent of Instructor. Lecture: 3 credits (45 contacts). Components: Lecture Attributes: Technical
FIR 264(3) Course ID:017547
Fire Prevention
Provides fundamental knowledge relating to the field of fire prevention including: history and philosophy of fire prevention; organization and operation of a fire prevention bureau; use and application of codes and standards; and fire investigation. Pre-requisite or Co-requisite: FIR 260 Or Instructor Consent. Lecture: credits (45 contact hours). Components: Lecture Attributes: Technical
FIR 265(3) Course ID:017548
Fire Protection Systems
Provides information relating to the features of design and operation of fire alarm systems, water-based fire suppression systems, special hazard fire suppression systems, water supply for fire protection and portable fire extinguishers. Pre-requisite or Co-requisite: FIR 260 or Instructor Consent. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: Technical
FIR 266(3) Course ID:017549
Fire Service Legal Aspects
Addresses the Federal, State, and local laws that regulate emergency services and include a review of national standards, regulations, and consensus standards. Pre-requisite: Instructor Consent. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: Technical
FIR 281(3) Course ID:017550
Fire Service Administration
Introduces the student to the organization and management of a fire and emergency services department and the relationship of government agencies to the fire service. Pre-requisite: Instructor Consent. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: Technical
FIR 1071(0.26) Course ID:017497
First Aid
Introduces students to basic concepts of first aid, such as offering initial care for traumatic and medical emergencies. Components: Lecture
FLK Folk Studies
FLK 276(3) Course ID:004779
Introduction to Folk Studies
An introduction to the study of folk traditions in different contexts, focusing on the concepts of folk group, cultural relativism, fieldwork, meaning and function, and the genres of folk narrative, folksong, folk custom and traditional material culture. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: AH - Arts and Humanities, AH - Arts and Humanities
FLK 280(3) Course ID:004780
Cultural Diversity in the United States
Focuses on understanding, interpretation, and appreciation of the multicultural nature of American society. Emphasis on the varieties of cultural expression, customs and world view practiced by regional, ethnic, racial and sectarian cultures. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: SB - Social Behavior Science, Other
FLM Filmmaking
FLM 112(4) Course ID:016196
Filmmaking: Treatment to Short Screen Play
Provides project-based instruction on the basics of filmmaking. Familiarizes students with the process of creating a film treatment and proposal, and writing and revising a screenplay. Co-requisite: FLM 122 AND FLM 132 AND FLM 140 OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours). Components: Lecture Attributes: Technical
FLM 122(4) Course ID:016197
Filmmaking: Storyboard through Production
Provides project-based instruction on basics of film production. Familiarizes students with directing, lighting, set designing, 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
FLM 132(4) Course ID:016198
Filmmaking: Editing through Distribution
Provides experience in graphic design, editing, music production, and promotion. Emphasizes preparation for entry-level positions in the industry. Co-requisite: (FLM 112 AND FLM 122 AND FLM 140) OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours). Components: Lecture Attributes: Technical
FLM 140(2) Course ID:016199
Filmmaking: Lab
Covers the lab portion of all topics included in FLM 112, FLM 122, and FLM 132. Consists of guest lecturers, group projects and hands on experience in film, ranging from pre-production and storyboards to post production. Co-requisite: (FLM 112 AND FLM 122 AND FLM 132) OR Instructor Consent. Laboratory: 2.0 credits (60 contact hours). Components: Laboratory Attributes: Technical
FLM 182(3) Course ID:017462
Acting for Camera
Covers the organization and setup of directing actors and working with a film crew. Integrates lectures from experts in the field. Prepares students for auditioning for professional projects. Focuses on student participation in at least two short film projects. Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: Technical
FLM 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 multiple short films or a feature length production. This course may be repeated two times for a maximum of 6 credits. Lecture : 1.0 credits (15 contact hours), Lab: 2.0 credits (60 contact hours) Components: Lecture Attributes: Technical
FLM 191(1) Course ID:017463
Film Boot Camp (Short)
Covers the organization and setup of a film production in the form of a short film ‘boot camp’. 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 one short film. Laboratory: 1 credit (15 contact hours). Components: Laboratory Attributes: Technical
FLM 210(3) Course ID:007265
Screenwriting
Introduces the fundamentals of screenwriting including scenic description, character development, plot twists, turn-arounds, three-act structure and reviews. Reviews writing for camera. Demonstrates the use of proper formatting and the connection between the screenplay, the director and the production team. Connects students to active screenwriters through collaboration and networking. Prepares students for work with the Writers Guild and other professional organizations. Note: it is recommended that the student complete ENG 101 prior to taking this course. Pre-requisite:(FLM 112 AND FLM 122 AND FLM 132 AND FLM 140) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Technical
FLM 260(3) Course ID:007266
Cinematography
Prepares students for careers in camera, directing and art design in the motion picture industry through introduction to composition, camera movement and prime lenses. Integrates classroom study of lens history and optics, as well as project-based, hands-on application of knowledge and practice. Demonstrates how lens selection and composition affects story development and viewer response. Pre-requisite: (FLM 112 AND FLM 122 AND FLM 132 AND FLM 140) OR Consent of Instructor. Lecture/Lab: 3.0 credits (75 contact hours). Components: Lecture Attributes: Technical
FLM 261(3) Course ID:017464
Film Directing
FLM 291(3) Course ID:016194
Cinematic Arts Internship
Prepares students for entry into Bachelor of Fine Arts programs and film schools nationwide or for the workforce in film production. Amplifies knowledge and practice in screenwriting, producing, directing, camera, lighting, set design, graphics, audio, acting, music, and editing. Provides on-the-job experience in the film industry, requiring a minimum of 180 contact hours of appropriate experience approved by the faculty member. Requires a learning contract, signed by the student, faculty member, and supervisor. Provides experience attending guest lectures, and on-the-job training. Pre-requisite: (FLM 112 AND FLM 122 AND FLM 132 AND FLM 140) OR Consent of Instructor. Pre-requisite or Co-requisite: (FLM 260 AND FLM 299) OR Consent of Instructor. Practicum: 3.0 credits (150 contact hours). Components: Practicum Attributes: Technical
FPX 100(3) Course ID:001465
Fluid Power

Components: Lecture
- Introduction to Fluid Power
  - Provides practical experiences in the study of fluid power theory, hydraulics and pneumatics component identification, schematic reading, and basic calculations related to hydraulic and pneumatic systems and their operations. Co-requisite: FPX 101 or Consent. Lecture: 3 credits (45 contact hours).

Components: Laboratory
- Fluid Power Lab
  - Familiarizes students with hydraulic fluids, reservoirs, and filters. Covers the methodologies required when servicing a typical hydraulic system. Includes a general discussion on the safe working practices required with fluid power systems. Co-requisite: FPX 101 or Consent. Lab: 2 credits (60 contact hours).

FPX 1013(0.3) Course ID:005678

Components: Laboratory
- Introduction to Hydraulic System Maintenance
  - Introduces the basic concepts of fluid power and provides an opportunity to discuss the application of those concepts in the development of hydraulic and pneumatic systems. Includes a general discussion on the specific safe working practices required with fluid power systems. Co-requisite: FPX 1003 or Consent. Lab: 0.3 credits (9 contact hours).

FPX 1014(0.55) Course ID:006544

Components: Laboratory
- Hydraulic System Components and Applications Lab
  - Introduces the basic fundamentals of hydraulic component, system design, and operation. Covers higher level schematic layout and design as well as the specifics involved with the actual component selection. Provides an opportunity to design and build actual hydraulic circuits and then troubleshoot any faults that may be present in their design or construction. Includes a general discussion on the safe working practices required with fluid power systems. Co-requisite: FPX 1005 or Consent. Lab: 0.55 credits (16.5 contact hours).

FRM 100(1) Course ID:017571
Fundamentals of Fermentation

Components: Lecture
- Fundamentals of Fermentation
  - Introduces students to the fundamentals of fermentation. Emphasizes the minimum stages required to produce a fermented product, basic equipment requirements, organization of equipment and supplies, and the fundamentals of sanitation, boiling, cooling, and bottling. Pre-requisite: Students must be 21 years of age. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (30 contact hours).

Components: Laboratory
- Technical

FRM 100 & FRM 110. Lecture: 2 credits (30 contact hours).

FRM 110(3) Course ID:017572
Principles of Fermentation Science

Components: Lecture
- Principles of Fermentation Science
  - Introduces students to the basic methodologies used in fermentation. Emphasizes the production of fermented products including ingredients, fermentation best practices, fermentation management, packaging, and sanitation. Pre-requisite: Students must be 21 years of age, and FRM 100 or consent of instructor. Lecture: 2 credits (30 contact hours) Laboratory: 1 credit (30 contact hours).

Components: Laboratory
- Technical

FRM 130(3) Course ID:017576
Sensory Analysis

Components: Lecture
- Sensory Analysis
  - Evaluates visual, olfactory, taste, and texture characteristics of beer and its raw ingredients using the five senses. Contextualizes materials used in the formulation of recipes while discerning off-flavors at various steps in the brewing process. Pre-requisite: Students must be 21 years of age, FRM 100 & FRM 110. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (30 contact hours).

Components: Laboratory
- Technical

FRM 140(3) Course ID:017577
Materials Evaluation

Components: Lecture
- Materials Evaluation
  - Evaluates visual, olfactory, taste, texture characteristics, and scientific analyses of raw materials while contextualizing the materials used in the fermentation process. Pre-requisite: Students must be 21 years of age, FRM 100 & FRM 110. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (30 contact hours).

Components: Laboratory
- Technical

FRM 201(3) Course ID:000878
Intermediate French I

Components: Lecture
- Intermediate French I
  - Focuses on developing listening, speaking, reading, and writing skills in French at the intermediate level with an emphasis on developing cultural competency. Pre-requisite: FRE 102 or two years of high school French and placement test. Lecture: 3 credits (45 contact hours).

Components: Lecture
- Technical

FRM 202(3) Course ID:000811
Intermediate French II

Components: Lecture
- Intermediate French II
  - Continues FRE 201 with a focus on developing listening, speaking, reading, and writing skills in French at the intermediate level with an emphasis on developing cultural competency. Pre-requisite: FRE 201 or three years of high school French and placement test. Lecture: 3 credits (45 contact hours).

Components: Lecture
- Technical

FRM Fermentation

Components: Lecture
- Technical

FRM 201(3) Course ID:017571
Fundamentals of Fermentation

Components: Lecture
- Fundamentals of Fermentation
  - Introduces students to the fundamentals of fermentation. Emphasizes the minimum stages required to produce a fermented product, basic equipment requirements, organization of equipment and supplies, and the fundamentals of sanitization, boiling, cooling, and bottling. Pre-requisite: Students must be 21 years of age. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (30 contact hours).

Components: Laboratory
- Technical

FRM 100(1) Course ID:017573
Brewery Facilities and Operational Management

Components: Lecture
- Brewery Facilities and Operational Management
  - Introduces the knowledge and skill sets required to successfully commission, maintain, manage, operate, troubleshoot, and repair the specialized equipment and facilities found in commercial breweries with an emphasis on industrial safety. Pre-requisite: Students must be 21 years of age & FRM 100. Lecture: 3 credits (45 contact hours). Laboratory: 1 credit (30 contact hours).

Components: Laboratory
- Technical

FRM 130(3) Course ID:017576
Sensory Analysis

Components: Lecture
- Sensory Analysis
  - Evaluates visual, olfactory, taste, and texture characteristics of beer and its raw ingredients using the five senses. Contextualizes materials used in the formulation of recipes while discerning off-flavors at various steps in the brewing process. Pre-requisite: Students must be 21 years of age, FRM 100 & FRM 110. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (30 contact hours).

Components: Laboratory
- Technical

FRM 140(3) Course ID:017577
Materials Evaluation

Components: Lecture
- Materials Evaluation
  - Evaluates visual, olfactory, taste, texture characteristics, and scientific analyses of raw materials while contextualizing the materials used in the fermentation process. Pre-requisite: Students must be 21 years of age, FRM 100 & FRM 110. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (30 contact hours).

Components: Laboratory
- Technical
FRM 150(3) Course ID: 017578
Recipe Formulation
Prepares students to formulate beers based upon desired profile, character, and style using knowledge acquired from Sensory Analysis (FMR 130) and Materials Evaluation (FMR 140) classes respectively. Pre-requisite: Students must be 21 years of age, FRM 100 & FRM 110. Pre-requisite or Co-requisites: FRM 130 & FRM 140. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

FRM 160(2) Course ID: 017579
Beverage Packaging
Prepares students in all aspects of packaging of fermented beverages to include kegging, canning, and bottling operations in a brewery. Pre-requisite: Students must be 21 years of age, FRM 100 & FRM 110. Lecture: 1 credit (15 contact hours). Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

FRT Fire/Rescue Training
FRT 083(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

FWT Fixed Wing Flight Training
FWT 101(4) Course ID: 017519
Private Pilot Fixed Wing Ground School
Covers fundamentals of fixed wing flight, flight operations, aviation weather, performance, navigation, aircraft systems, aeronautical publications, FAA regulations, flight planning, radio procedures, and meteorology and human factors. Prepares students for the FAA Fixed Private Pilot Airman Knowledge Exam. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

FWT 102(2) Course ID: 017520
Private Pilot Fixed Wing Flight Lab
Introduces the student to the fundamentals of fixed wing flight and the practical application of aviation weather, performance, navigation, FAA regulations, flight planning, radio procedures, and human factors. Prepares students to take the Federal Aviation Administration Fixed Wing Private Pilot Practical Test Standards examination. Pre-requisites: FWT 101 and Proof of valid Second Class (or higher) Medical Certificate. Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

FWT 103(4) Course ID: 017521
Fixed Wing Aircraft Instrument Pilot Ground School
Prepares students for the FAA fixed instrument Pilot Instrument knowledge test and includes an in-depth study of aircraft flight instruments, basic attitude instrument flying, Instrument Flight Rules (IFR) navigation systems and procedures, aviation weather, applicable Federal Aviation Regulations (FAR), and the instrument charts required for IFR flight. Pre-requisites: FWT 101, FWT 102. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

FWT 104(2) Course ID: 017522
Fixed Wing Instrument Pilot Flight Lab
Prepares students for the fixed wing FAA Instrument Flight Practical Test Standards exam and the FAA Instrument Flight Rating. Includes in-depth demonstration of in-flight

FWT 105(3) Course ID: 017523
Fixed Wing Commercial Pilot Ground School
Reviews the principles of fixed wing flight, aircraft systems, pertinent federal aviation regulations and airman publications and service in order to prepare the student for the FAA Commercial Fixed Wing Pilot airman knowledge exam. Pre-requisites: FWT 101, and FWT 102 or Private Pilot Certificate, and FWT103. Co-requisite: FWT104. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

FWT 106(2) Course ID: 017524
Commercial Flight Lab
Introduces student pilots to more advanced fixed wing flight maneuvers and the practical application of in-flight aviation weather, aircraft performance, navigation, with Federal Aviation Administration (FAA) regulations, flight planning, radio procedures, and human factors. Complies with FAA flight hour and certification requirements to qualify students to apply for the FAA Commercial Fixed Wing Pilot Practical Test Standard (PTS) examination. Pre-requisites: FWT 101, FWT 102, FWT 103, FWT 104, and FWT 105. Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

FWT 107(4) Course ID: 017525
Certified Flight Instructor Fixed Wing
Reviews the principles of fixed wing flight, aircraft systems, pertinent federal aviation regulations, and airman publications and service in order to prepare the student for the FAA Certified Flight Instructor Practical Test Standard (PTS). Pre-requisites: FWT 101 (or Private Pilot Certificate), FWT 102, FWT 103, FWT 104, FWT 105 and FWT106. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

FWT 108(2) Course ID: 017526
Certified Flight Instructor Fixed Wing Lab
Reviews student in-flight mastery of the fixed wing principles of flight, aircraft systems, pertinent federal aviation regulations, and airman publications and service in order to prepare the student for the fixed wing FAA Certified Flight Instructor Practical Test Standards exam. Pre-requisites: FWT 101 and Private Pilot Certificate, FWT 102, FWT 103, FWT 105, FWT 106, and FWT 107. Laboratory: 2.0 credits (60 contact hours).
Components: Lab
Attributes: Technical

FWT 109(2) Course ID: 017527
Fixed Wing Certified Flight Instructor Instrument Flight Lab
Demonstrates a mastery of instructing the principles of fixed wing flight, aircraft systems, pertinent federal aviation regulations, and airman publications and service in order to prepare the student for the fixed wing FAA Certified Flight Instructor Instrument Practical Standards Test (PST) examination. Pre-requisites: FWT 101, FWT 102, FWT 103, FWT 104, FWT 105, FWT 106, FWT 107, FWT 108, and FWT 109. Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory
Attributes: Technical
GEN 091(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 evaluating. Pre-requisite: COMPASS Reading Score of 60+ OR English Score of 39+. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Developmental/Remedial Learning Skills

GEN 100(1) Course ID:0080871
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 credit hour (15 contact hours).
Components: Lecture
Attributes: Other, Course Also Offered in Modules, Enrichment 1st Year Experience

GEN 102(3) Course ID:0080872
Foundations of Learning
Prepares 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 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 for 1 hour for 45 hours of tutoring, 2 credits for 90 hours of tutoring, and 3 hours for 120 hours of tutoring. May be repeated for a total of 6 credits. Pass/Fail. Pre-requisite: GEN 122. Lecture: 1 - 3 credits (15 to 45 contact hours).
Components: Lecture
Attributes: Other

GEN 131(1) Course ID:005524
Basic Library Research and Resources
Introduces student to effective and efficient use of information resources through development of search statements/strategies, location and evaluation of information and information resources, and review and revision of search strategies as needed. Introduces students to the library catalog, print resources, databases, web resources and to the evaluation of information. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Other

GEN 140(3) Course ID:000179
Instructor Consent Required
Prepares students to teach a section of GEN 100 with a faculty member. Pre-requisite: GEN 103 and consent of GEN 100 instructor and Sophomore status. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Other

GEN 120(3) Course ID:003864
Service Learning
Engages students directly in structured, community-based activities to acquaint them with community opportunities, services, and needs. Integrates concepts from the classroom with community service allowing student to develop critical thinking while providing an appreciation of service. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other

GEN 122(1) Course ID:003871
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 for 1 hour for 45 hours of tutoring, 2 credits for 90 hours of tutoring, and 3 hours for 120 hours of tutoring. May be repeated for a total of 6 credits. Pass/Fail. Pre-requisite: GEN 122. Lecture: 1 - 3 credits (15 to 45 contact hours).
Components: Lecture
Attributes: Other

GEN 131(1) Course ID:005524
Basic Library Research and Resources
Introduces student to effective and efficient use of information resources through development of search statements/strategies, location and evaluation of information and information resources, and review and revision of search strategies as needed. Introduces students to the library catalog, print resources, databases, web resources and to the evaluation of information. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Other

GEN 140(3) Course ID:000179
Instructor Consent Required
Prepares students to teach a section of GEN 100 with a 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
of earth’s physical environment. Emphasis is placed on identifying interrelationships between atmospheric processes involving energy, pressure, and moisture; weather and climate; and terrestrial processes of vegetation biomes, soils, and landscape formation and change. Fulfills elementary certification requirements in education, and USP cross-disciplinary requirement. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SN - Science

GEO 131(1) Course ID:017639
Earth’s Physical Environment Laboratory
Emphasizes basic laboratory studies of identifying interrelationships between atmospheric processes involving energy, pressure, and moisture; weather and climate; and terrestrial processes of vegetation biomes, soils, and landscape formation and change. Pre-requisite or Co-requisite: GEO 130. Laboratory: 1 credit (30 contact hours).

Components: Laboratory

GEO 131(3) Course ID:017508
Resilient Gardening Laboratory
Provides applications of ecological and geographical concepts, including activities related to the lithosphere, atmosphere, hydrosphere, and biosphere such as tree identification and care, soil analysis and care, pollinators and other beneficial insects, companion planting, solar requirements of plants, and water conservation. Pre-requisite or Co-Requisite: GEO 130 or BIO 120. Laboratory: 1.0 credit hour (30 credit hours).

Components: Laboratory
Attributes: Other

GEO 152(3) Course ID:000398
Regional Geography of the World
Introduces regional geography with a focus on the world’s physical and human landscapes. Emphasizes connections between regions and how each region affects and is affected by global issues such as economic restructuring, food production, and environmental change. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

GEO 160(3) Course ID:00422
Lands and Peoples of the Non-Western World
Provides a geographic study of world regions defined conceptually and historically as non-Western. Includes global patterns of social, cultural, economic and political differences between the West and Non-West and the processes key to making the Non-Western world, such as colonialism and imperialism. Considers significant current issues including sustainable development, environment, human rights, and gender relations. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

GEO 162(3) Course ID:007194
Introduction to Global Environmental Issues
This course addresses environmental questions of global importance, including population growth, resource consumption, environmental degradation, biodiversity conservation, toxic contamination and environmental justice. (Fulfills Gen Ed Global Dynamics requirement at the University of Kentucky.) Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science, University Course (University of Kentucky)

GEO 163(3) Course ID:007195
Global Conflicts
This course will focus on the dynamics and effective of conflicts over boundaries, territory, environmental resources, and civil and political rights. A geographic lens will be used to understand contemporary world conflicts. This course introduces students to understanding of conflict as both grounded in localities and an effect of global interconnections - political, economic, and cultural. The course will focus on six major contemporary conflicts. Students will become versed in the debates and possible options for solution of these problems. While lectures will provide students with an understanding of the coordinates of the conflicts, recitations sections provide an opportunity for discussion and debate. The readings are chosen to supplement lecture material, providing a greater depth of understanding of the issues at stake. (Fulfills the Global Dynamics requirement of General Education at the University of Kentucky.) Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science, University Course (University of Kentucky)

GEO 172(3) Course ID:000158
Human Geography
Presents a study of the spatial distributions of significant elements of human occupancy of the earth’s surface including basic concepts of diffusion, population, migration, settlement forms, land utilization, and impact of technology on human occupancy of the earth. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

GEO 210(3) Course ID:000610
Pollution, Hazards, and Environmental Management
Introduces students to the environmental aspects of natural hazards: weather and climate, vegetation, land forms and soils, and how the quality of these systems is modified by human use. Resource issues discussed include: atmospheric pollution and global warming; groundwater, flooding, and flood plain management; volcanic activity and earthquakes; and biophysical processes associated with deforestation and lake eutrophication. Case studies based upon important environmental problems illustrate how human activity and environmental systems interact. Fulfills USP Cross-Disciplinary requirement. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SB - Social Behavior Science

GEO 222(3) Course ID:000482
Cities of the World
Focuses on the historical development, contemporary character, and alternative futures of cities in both developing and developing regions. Emphasizes the spatial, social, economic, and political processes of major world cities. Includes a specific focus on contemporary urban problems. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SB - Social Behavior Science

GEO 240(3) Course ID:000434
Geography and Gender
Presents a geographic approach to the study of gender relations, emphasizing the role of space and place in shaping the diversity of gender relations throughout the world. Stresses the importance of gender relations in understanding a variety of issues through the application of case study analysis. Includes the design and use of urban and rural environments. “Third World” development, regional economic restructuring, changing political geographies, and migration. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SB - Social Behavior Science

GEO 251(3) Course ID:000659
Weather and Climate
A survey of the atmospheric controls associated with local, regional, and global weather and climate variability. Includes fundamental coverage of the physics and chemistry of energy, gases, pressure and moisture, with a goal of providing understanding of general weather analysis and forecasting, severe storms, atmospheric pollution, descriptive climatology, and global climate change. Pre-requisite: GEO 130 or consent of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SN - Science

GEO 280(4) Course ID:017173
Environmental Science
Introduces the study of environmental science and the role of the interrelationship between humans and their environment in contemporary issues. Emphasizes the basic principles of environmental science, functions of ecological systems, contemporary environmental conditions and problems, techniques for investigating these systems, and theories on humanity’s place in the world’s ecosystems and physical environment. Integrated Lecture/ Lab. 4 credit hours (60 contact hours).

Components: Integrated Laboratory, Integrated Lecture
Attributes: SL - Science Laboratory, SN - Science

GEO 298(1 - 3) Course ID:017372
Special Topics in Geography
Introduces specialized topics in the field of geography to meet current trends and investigations of contemporary issues in the discipline. May be repeated to a maximum of six credits under different subtitles. Pre-requisite: Consent of instructor. Lecture: Variable.

Components: Lecture
Attributes: Other

GER 101(4) Course ID:000864
Elementary German I
Includes fundamentals of German with development of the four basic skills: reading, writing, listening, and speaking. Lecture: 4 credits (60 contact hours).

Components: Lecture
Attributes: Foreign Language, Cultural Studies

GER 102(4) Course ID:000759
Elementary German II
Continues the fundamentals of GER 101 with further development of the four basic skills: reading, writing, listening, and speaking. Pre-requisite: GER 101 or Consent of Instructor. Lecture: 4 credits (60 contact hours).

Components: Lecture
Attributes: Foreign Language, Cultural Studies

GER 201(3) Course ID:000880
Intermediate German I
Includes the systematic review of grammar and furthering of reading, writing, listening, and speaking skills based upon cultural and literary materials. Pre-requisite: GER 102, or equivalent or placement test. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Foreign Language, Cultural Studies

GER 202(3) Course ID:000820
Intermediate German II
Continues the study of intermediate German through grammar, reading, and oral practice. Pre-requisite: GER 201 or equivalent or placement test. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Foreign Language, Cultural Studies

GIS 110(3) Course ID:004761
Spatial Data Analysis and Remote Sensing Techniques
Introduces spatial analysis, the interpretation of map data, and the use of handheld Global Positioning Systems to collect data. Intended for those interested in a career in civil engineering or surveying. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (15 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

GIS 120(3) Course ID:004762
Introduction to Geographic Information Systems
Presents a comprehensive survey of the fundamental concepts of GIS, providing students a command over the software to import raster and vector data into a GIS and to conduct simple analyses over their data. Intended for those with limited experience with GIS who are exploring career opportunities in the field. Pre-requisite: GIS 110. Lecture: 3 credits (45 contact hours).

Components: Lecture

GIS 145(3) Course ID:016881
Remote Sensing
Introduces remote sensing of the earth with topics that include the physical principles of remote sensing, history
and future trends, sensors and their characteristics, image data sources, and image classification and analysis techniques. Pre-requisite or Co-requisite: CIT 125 or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

GIS 210(3) Course ID:005042
Advanced Topics in GIS
Explores advanced topics in GIS. Teaches students how to create and import geodatabases into a GIS, edit and create new vector and raster data, build layouts for presentation purposes and manipulate tabular data. Exposes students to various extensions within the software in order to conduct advanced analyses on their data. Pre-requisite: GIS 120. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

GIS 255(3) Course ID:016682
Geospatial Programming
Examines customization of GIS software applications by way of modified service interface elements while covering topics in theory and implementation of the various scripting languages currently used. Prepares students to solve geospatial problems and streamline GIS workflows through the creation and modification of scripts. Pre-requisite: CIT 125 or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

GIS 260(3) Course ID:016683
Geospatial Web Mapping
Introduces the design, publishing, optimization and maintenance of geospatial servers, and basic geospatial web services and applications. Includes an introduction to browser and mobile enabled interactive applications. Pre-requisite: CIT 125 or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

GLY 101(3) Course ID:000878
Physical Geology
Introduces the principles of physical geology, including study of minerals and rocks, volcanoes and earthquakes, plate tectonics, and the landforms of Earth's surface. Requires concurrent enrollment in GLY 111. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SN - Science

GLY 102(3) Course ID:000757
Historical Geology
Covers the history of the Earth: its origin as part of the solar system, and subsequent evolution of the atmosphere, continents, seas, and life as interpreted from the rock record. Includes in addition to lecture illustrations, field trips and out-of-class exercises. Gives attention to the development of the basic principles used in interpretation. Pre-requisite: GLY 101 and GLY 111 or consent of instructor. Co-requisite: GLY 112. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SN - Science

GLY 110(3) Course ID:002218
Environmental Geology
Introduces and applies basic geological concepts to current environmental issues including the availability and use of water and soil resources, pollution causes, effects and solutions, and causing and predicting of environmental hazards including floods, landslides, subsidence, earthquakes and volcanoes. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SN - Science

GLY 111(1) Course ID:000544
Physical Geography Laboratory
Identify minerals and rocks in hand specimens, interpret landscape features as shown on topographic maps, and study geologic maps. Co-requisite: GLY 101. Laboratory: 1.0 credit (30 contact hours).

Components: Laboratory
Attributes: SL - Science Laboratory

GLY 112(1) Course ID:000548
Historical Geology Laboratory
Interpret geologic maps and cross-sections, and study important invertebrate fossil groups. Requires one field trip. Pre-requisite: GLY 101 and GLY 111 or consent of the instructor. Co-requisite: GLY 102. Lab: 1.0 credit (30 contact hours).

Components: Laboratory
Attributes: SL - Science Laboratory

GLY 114(1) Course ID:015662
Environmental Geology Laboratory
Introduces and applies basic geologic concepts in a laboratory setting to current environmental issues, including the availability, use, and testing of water and soil resources, as well as the effects, solutions, and causes of pollution. Pre-requisite or Co-requisite: GLY 110. Lab: 1.0 credit (30 contact hours).

Components: Laboratory
Attributes: SL - Science Laboratory

GLY 125(3) Course ID:016917
Geology of the National Parks and Monuments
Introduces the principles of physical geology within the context of the U.S. National Parks and Monuments, including Earth materials, geologic time, plate tectonics, and the surface and internal processes that have shaped and continue to shape the Earth as related to specific National Park and Monument sites. Includes an overview of the history of the park system and its unique role in understanding and preserving our natural history and environment. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: SN - Science

GLY 130(3) Course ID:003781
Dinosaurs and Disasters: A Brief History of the Vertebrates
Examines dinosaurs’ interactions with their environment, their indirect influence on mammals, and implications for humankind. Traces the history of dinosaurs from early vertebrate ancestors to their final extinction, and surveys the evolutionary, paleogeographic, environmental, and possible extraterrestrial causes for their rise to dominance and sudden fall. Lecture: 3.0 credit hours.

Components: Lecture
Attributes: SN - Science

GLY 131(1) Course ID:007361
Dinosaur Laboratory
Augments GLY 130 in analysis and interpretation of fossils, scale models, and sedimentary rocks. Investigates specimens and examines features of dinosaurs and related fossils. Uses sedimentary rocks and fossils to interpret ancient environments, dinosaur anatomy, and geologic history. Demonstrates to students how science works. Pre-requisite or Co-requisite: GLY 130. Lab: 1.0 credit (30 contact hours).

Components: Laboratory
Attributes: SL - Science Laboratory

GLY 140(3) Course ID:016864
Introduction to Oceanography
Investigates geologic, physical, biogeochemical, and biological processes that occur within the oceans of the world. Emphasizes connections between these processes and how those connections interact with our planet’s life. Explores geologic evolution of the ocean floor, dynamic composition of ocean water, lithospheric and atmospheric interactions with the hydrosphere, marine life and ecosystems, and the impact of human activity on marine ecosystems. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: SN - Science

GLY 220(4) Course ID:000847
Principles of Physical Geology
Learn how the Earth works: an integrated course in physical geology, covering the physical, chemical and biological processes that combine to produce geological processes. Focuses on plate tectonics, earth surface processes, and properties and formation of earth materials. Lab exercises emphasize identification and interpretation of geologic materials, geologic maps and cross sections. Lecture: 3 credits (45 contact hours); Laboratory: 1 credits (30 contact hours).

Components: Lecture
Attributes: SL - Science Laboratory, SN - Science

HCS 110(1) Course ID:016971
Culture of Healthcare
Covers job expectations and roles of clinical personnel in a healthcare setting. Discusses healthcare organization inside a practice setting, privacy laws, professional and ethical issues encountered in the workplace, and common form of care delivery. Lecture: 1.0 credits (15 contact hours).

Components: Lecture
Attributes: Technical

HCS 125(1) Course ID:016972
History in Healthcare
Introduces the concept of “meaningful use” of electronic health records as well as the development and background of the IT landscape in 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

HCS 145(1) Course ID:016973
Health IT Terminology
Explains terminology used by workers in health care, public health, or those who work with Health IT systems including common medical terms, technology systems, health data standards, and clinical terminology. Pre-requisite or Co-requisite: AHS 115 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture
Attributes: Technical

HCS 150(2) Course ID:016974
Health IT Analysis & Quality
Introduces concepts of Health IT and practice workflow process analysis and redesign. Addresses how establishing a culture to support increased quality and safety is critical in the healthcare environment. Discusses the approaches to assessing patient safety issues, implementing quality management, and reporting through electronic systems. Pre-requisite or Co-requisite: CIT 105 AND HCS 145, or Consent of Instructor. Lecture: 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical

HCS 165(2) Course ID:016975
Health Management Systems
Covers specific health care and public health applications. Introduces Health IT standards, health-related data structures, software applications, enterprise architecture in health care, and public health organizations. Pre-requisite or Co-requisite: CIT 105 AND HCS 145, or Consent of Instructor. Lecture: 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical

HCS 180(1) Course ID:016976
Usability and Human Factors
Introduces rapid prototyping, user-centered design and evaluation, and usability. Emphasizes the effects of new technology and workflow on downstream processes, as well as facilitation of a unit-wide focus group or simulation. Pre-requisite or Co-requisite: CIT 105 AND AHS 115 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture
Attributes: Technical

HCS 200(1) Course ID:016977
Health IT Computer Systems
Provides an intermediate overview of computer architecture, data organization, representation, structure
null
HEO 211(3) Course ID:017612
Heavy Equipment Operating II
Reinforces material first presented in HEO 141. Provides intermediate instruction for students in the operation of heavy equipment such as bulldozers, backhoes, front-end loaders, graders, and scrapers. Practices techniques in digging, ditching, sloping, grading, backfilling, clearing trees and rubble, and foundation excavating. Demonstrates the proper care and maintenance of equipment. Pre-requisite: HEO 141. Laboratory: 3 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

HEO 225(3) Course ID:001528
Special Problems II
Reinforces material presented in HEO 150, 200, and 250. Instruction all facets of project control. Pre-requisite Or Co-requisite: DIT 103. Lab: 3.0 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

HEO 231(3) Course ID:017613
Heavy Equipment Operating III
Reinforces material presented in HEO 211. Provides advanced instruction in the operation of heavy equipment such as bulldozers, backhoes, front-end loaders, graders, and scrapers. Refines techniques in digging, ditching, sloping, stripping, grading, backfilling, clearing trees and rubble, and foundation excavating. Demonstrates in the proper care and maintenance of equipment. Pre-requisite: HEO 211. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

HFL 100(3) Course ID:015593
Introduction to Healthcare Facility Management
Introduces students to Healthcare Facility Leadership by presenting an overview of the history and development of healthcare engineering. The student will learn the importance of compliance with the various codes and standards applicable to the healthcare facility environment; explore the driving factors affecting the operations and maintenance of health care facilities; review the complexity of delivering engineering in a patient-centered environment; gain understanding of the complex structure and reporting relationships that exist in the healthcare industry; understand how the facility environment impacts regulatory requirements, clinical needs, and financial bottom line of healthcare; and gain an understanding of his/her role within the facility management department and the hospital setting. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

HFL 110(2) Course ID:015594
Introduction to Healthcare Industry
Introduces students to the healthcare industry by examining healthcare reporting relationships, organizational structures, personnel, facility types, department configurations, terminology, regulatory environment, and accreditation process. The course will also examine industry shifts related to an aging population and healthcare law changes. The student will have a clearer understanding of how to navigate the healthcare industry based on size and complexity. Lecture: 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical

HFL 120(2) Course ID:015663
Infection Control and Prevention
Examines the historical and evolving infection control complexities from both a clinical and physical environment perspective. Reviews changes the industry has taken to address this growing healthcare industry challenge. Studies how the medical environment and engineering practices during construction and maintenance impact infection control. Reviews infection control risk assessments and prevention documentation and techniques. Lecture 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical

HFL 130(3) Course ID:015664
Compliance, Codes and Standards I
Introduces student to the various codes & standards, regulatory, and accreditation agencies in Healthcare. Takes into consideration local, state, and federal regulatory bodies such as Occupational Safety and Health Administration (OSHA), National Fire Protection Association (NFPA), Building Owners and Managers Association (BOMA), Center for Medicare and Medicaid Services (CMS), American Society for Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE), International Organization for Standardization (ISO), National Electrical Code (NEC), International Building Code (IBC), The Joint Commission, and the DNV. Examines the facility leader’s role in coordination and participation in the accreditation and regulatory survey processes. Evaluates the role of a coordinator and participant in emergency management drill and training. Develops fire training and drill documentation. Pre-requisite: HFL 100 Introduction to Healthcare Facility Management. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

HFL 140(3) Course ID:015665
Maintenance and Operations I
Examines and reviews mechanical, electrical, plumbing, medical gas, fire protection, building envelope, medical, steam, and security systems that comprise most healthcare facilities. Reviews computer systems and software such as building automation, fire systems, work order systems, and CAD/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 Infusion 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
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 

HFT Helicopter Flight Training 

HFT 101(4) Course ID:017509 
Private Helicopter Pilot 
Covers fundamentals of helicopter flight, flight operations, aviation weather, performance, navigation, aircraft systems, aeronautical publications, FAA regulations, flight planning, radio procedures, meteorology, and human factors. Prepares student for the helicopter FAA Private Pilot Airman Knowledge exam. Lecture: 4.0 credits (60 contact hours).

Components: Lecture 
Attributes: Technical 

HFT 102(2) Course ID:017510 
Private Pilot Helicopter Flight Lab 
Introduces the student to the fundamentals of helicopter flight and the practical application of aviation weather, performance, navigation, FAA regulations, flight planning, radio procedures, and human factors. Prepares students to take the Federal Aviation Administration Helicopter Private Pilot Practical Test Standards examination. Pre-requisite: HFT 101 and Proof of valid Second Class or (higher) Medical Certificate. Laboratory: 2.0 credits (60 contact hours).

Components: Laboratory 
Attributes: Technical 

HFT 103(4) Course ID:017511 
Helicopter Instrument Pilot 
Prepares students for the helicopter FAA Instrument knowledge test and includes an in-depth study of aircraft instruments, basic attitude instrument flying, Instrument Flight Rules (IFR) navigation systems and procedures, aviation weather, applicable helicopter Federal Aviation Regulations (FAR), and the instrument charts required for IFR flight. Pre-requisite: HFT 101. Lecture: 4.0 credits (60 contact hours).

Components: Lecture 
Attributes: Technical 

HFT 104(2) Course ID:017512 
Helicopter Instrument Pilot Flight Lab 
Prepares students for the Helicopter FAA Instrument Flight Practical Test Standards exam and the Helicopter FAA Instrument Flight Rating. Includes in-depth demonstration of in-flight mastery of aircraft flight instruments. Features attitude instrument flying, IFR navigation and procedures, aviation weather procedures, applicable FARs, and mastery of the instruments required for IFR flight. Pre-requisites: HFT 101, HFT 102, and HFT 103. Laboratory: 2.0 credits (60 contact hours).

Components: Laboratory 
Attributes: Technical 

HFT 105(4) Course ID:017513 
Helicopter Commercial Pilot 
Reviews the principles of helicopter flight, aircraft systems, pertinent federal aviation regulations, and airman publications and service in order to prepare the student for the FAA Commercial Helicopter Pilot airman knowledge exam. Pre-requisite: HFT 101 or Private Pilot Certificate. Lecture: 4.0 credits (60 contact hours).

Components: Lecture 
Attributes: Technical 

HFT 106(2) Course ID:017514 
Commercial Helicopter Flight Lab 
Introduces student pilots to more advanced helicopter flight maneuvers and the practical application of in-flight aviation weather, aircraft performance, navigation, FAA regulations, flight planning, radio procedures, and human factors. Complies with Federal Aviation Administration flight hour and certification requirements to qualify students to apply for the FAA Commercial Helicopter Pilot Practical Test Standard (PTS) examination. Pre-requisites: HFT 101, HFT 102, HFT 103, HFT 104, and HFT 105. Laboratory: 2.0 credits (60 contact hours).

Components: Laboratory 
Attributes: Technical 

HFT 107(4) Course ID:017515 
Certified Helicopter Flight Instructor 
Reviews the principles of helicopter flight, aircraft systems, pertinent federal aviation regulations, and airman publications and service in order to prepare the student for the helicopter FAA Certified Flight Instructor Airman Knowledge Exam. Pre-requisites: HFT 101 (or Private Pilot Certificate), HFT 102, HFT 103, HFT 104 and HFT 106. Lecture: 4.0 credits (60 contact hours).

Components: Lecture 
Attributes: Technical 

HFT 108(2) Course ID:017516 
Certified Helicopter Flight Instructor Lab 
Reviews student in-flight mastery of the principles of helicopter flight, aircraft systems, pertinent federal aviation regulations, and airman publications and service in order to prepare the student for the FAA Certified Helicopter Flight Instructor Practical Test Standards (PTS) exam. Pre-requisites: HFT 101, HFT 102, HFT 103, HFT 104, HFT 105, HFT 106, and HFT 107. Laboratory: 2.0 credits (60 contact hours).

Components: Laboratory 
Attributes: Technical 

HFT 109(4) Course ID:017517 
Certified Helicopter Flight Instructor Instrument 
Reviews the principles of helicopter flight, aircraft systems, pertinent federal aviation regulations and airman publications and service in order to prepare the student for the FAA Certified Helicopter Flight Instructor Instrument airman knowledge exam. Pre-requisites: HFT 101 (or Private Pilot Certificate), HFT 101, HFT 102, HFT 103, HFT 104, HFT 105, HFT 106, HFT 107 and HFT 108. Lecture: 4.0 credits (60 contact hours).

Components: Lecture 
Attributes: Technical 

HFT 110(2) Course ID:017518 
Certified Helicopter Flight Instructor Flight Lab 
Demonstrates a mastery of instructing the principles of helicopter flight, aircraft systems, pertinent federal aviation regulations and airman publications and service in order to prepare the student for the FAA Certified Helicopter Flight Instructor Instrument Practical Test Standards (PTS) examination. Pre-requisites: HFT 101, HFT 102, HFT 103, HFT 104, HFT 105, HFT 106, HFT 107, and HFT 108. Laboratory: 2.0 credits (60 contact hours).

Components: Laboratory 
Attributes: Technical 

HIM Historic Information Management 

HIM 210(3) Course ID:004306 
Archives Studies: Appraisal & Accessioning 
This course provides an in-depth examination of the information appraisal and accession process in archives work. Topics covered include intellectual content, documentation strategies, appraisal theories, and accessioning practices. Students are expected to complete an accession record, including records transmittal form, deed of gift, and accession form. Pre-requisite: HIM 102. Lecture: 3 credits (45 contact hours).

Components: Lecture 

HIS History 

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 103(3) Course ID:000880 
A History of Europe Through the Mid-Seventeenth Century 
Surveys the development of European politics, society, and culture from the beginnings of civilization through the Age of Religious Conflict. Lecture: 3 credits (45 contact hours).

Components: Lecture 
Attributes: AH - Arts and Humanities 

HIS 105(3) Course ID:000834 
A History of Europe from the Mid-Seventeenth Century to the Present 
Surveys the development of European politics, society, and culture from the Age of Absolutism to the present. Lecture: 3 credits (45 contact hours).

Components: Lecture 
Attributes: AH - Arts and Humanities 

HIS 106(3) Course ID:000532 
Western Culture: Science and Technology I 
Surveys the interactions of science and technology with the social and cultural development of Western civilization since the Industrial Revolution. Emphasizes the values in scientific inquiry as compared with other kinds of inquiry and the importance of science and technology in modifying social organization and human expectations. Lecture: 3 credits (45 contact hours).

Components: Lecture 
Attributes: AH - Arts and Humanities 

HIS 107(3) Course ID:000535 
Western Culture: Science and Technology II 
Surveys the interactions of science and technology with the social and cultural development of Western civilization since the Industrial Revolution. Emphasizes the values in scientific inquiry as compared with other kinds of inquiry and the importance of science and technology in modifying social organization and human expectations. Lecture: 3 credits (45 contact hours).

Components: Lecture 
Attributes: AH - Arts and Humanities 

HIS 108(3) Course ID:000542 
History of the United States Through 1865 
Examines key political, economic, and social topics that have significantly influenced the American experience from the pre-colonial period through the Civil War era. Lecture: 3 credits (45 contact hours).

Components: Lecture 
Attributes: AH - Arts and Humanities, Course Also Offered in Modules 

HIS 109(3) Course ID:000171 
History of the United States Since 1865 
Examines key political, economic, and social topics that have influenced significantly the American experience from Reconstruction through the contemporary era. Lecture: 3 credits (45 contact hours).

Components: Lecture 
Attributes: AH - Arts and Humanities, Course Also Offered in Modules 

HIS 120(3) Course ID:000348 
The World at War, 1939-45 
Covers a global overview of the events of the Second World War, including consideration of the conflicts military, diplomatic, political, social, and economic dimensions. Lecture: 3 credits (45 contact hours).

Components: Lecture 
Attributes: AH - Arts and Humanities
HIS 202(3) Course ID:000828
History of British People to the Restoration
Surveys the major political, social, economic, and cultural developments in British history from the pre-Roman era through the Stuart Dynasty. Includes examination of such topics as the Norman conquest, the Plantagenet Dynasty, the Hundred Years War, War of the Roses, the Tudors, Monarchs, the Protestant Reformation, the Stuart Kings, Puritan Revolution, and the Restoration. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

HIS 203(3) Course ID:000516
History of the British People Since the Restoration
Surveys the major political, social, economic, and cultural developments in British history from the Stuart period to the present. Includes examination of such topics as the Glorious Revolution, Imperial Wars, American Revolution, Napoleonic Wars, Industrial Revolution, Imperialism, World War I, Great Depression, World War II, Cold War, Decolonization, Post-War Britain, and the European Union. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

HIS 206(3) Course ID:002219
History of Colonial Latin America
Surveys the social, economic, political, and cultural development of Latin America from the fifteenth century to 1810 with an emphasis on pre-Columbian societies, the Iberian kingdoms, the Age of Expansion: the conquest and colonization of the indigenous cultures of the New World, the establishment of Spanish and Portuguese institutions, the relations between the Church and the State, the encomienda and the hacienda, slavery and the impact of the Bourbon Reforms on Latin America. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 207(3) Course ID:002220
History Modern Latin America, 1810 to Present
Surveys the history of the Latin American nations focusing on their social, economic, political and cultural development. Emphasizes the history of the independence movements, nation building, the struggle for modernization, dependency and the phenomenon of revolution since 1810. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

HIS 215(3) Course ID:015616
Historical Perspectives on Prisons and Police Work
Examines historical development of law codes, police work and prisons since the ancient world, with emphasis on the early modern period to the present. Develops an understanding of current practices in criminology, placing emphasis on the evolving conceptions of the causes and cures for criminal behavior, and the professionalization of police and corrections personnel. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, Other

HIS 220(3) Course ID:007417
Native American History: Pre-Contact to 1865
Examines the struggle of Native Americans from pre-colonial times to 1865. Emphasizes the indigenous Native American culture and society, the Columbian and biological exchange, Indian-Anglo cultural interactions, the construction and reconstruction of Indian identities, and the struggles for the Great Plains and the Great Basin. Assesses the U.S. Indian policy development in relation to forced Indian removal, Americanization plan, educational assimilation on Indian children, termination policy, and sovereignty. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 240(3) Course ID:000439
History of Kentucky
Surveys the chief periods in Kentucky's growth and development from 1780 to the present focusing on the social, economic, cultural, and political trends of each region. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

HIS 247(3) Course ID:000651
History of Islam and Middle East Peoples, 500-1250 A.D.
Surveys the origins and development of the Islamic civilization from the time of the Prophet Muhammad to 1250, with special emphasis on the role of the Arab, Iranian, and Turkic peoples. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 248(3) Course ID:000654
History of Islam and Middle East Peoples, 1250 to the Present
Surveys the religion and institutions of the Islamic world in the Middle East with emphasis on the Mongol, Ottoman, Safavid, and Qajar Empires. Includes the expansion of these empires, the response of the Middle East peoples to European imperialism, and the development of the Middle East since 1250. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 254(3) Course ID:000670
History of Sub-Saharan Africa
Surveys the major social, religious, cultural, economic, and political trends in Sub-Saharan African history since the 16th century. Includes the impact of the Atlantic slave trade, European imperialism, and 20th century wars on Sub-Saharan Africa. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 260(3) Course ID:000680
African American History to 1865
Studies the African American experience through the Civil War. Examines African heritage, slavery, and growth of African American institutions. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 261(3) Course ID:000693
African-American History 1865 - Present
Examines the African American experience from Reconstruction to the present, with emphasis on the rise of segregation, the Civil Rights Movement, and race relations into the twenty-first century. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 265(3) Course ID:000705
History of Women in America
Surveys the history of American women, with particular emphasis on the mid-19th century to the present. Includes the major themes of family, work, social ideas about women, and feminism. Lecture: 3 credit hours (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 268(3) Course ID:005481
History of American Women to 1920
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
Surveys the major civilizations of Asia. Focuses on the key political, social and cultural developments of the major peoples from the beginning 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 299(1 - 3) 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 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 have significantly influenced the American experience. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

HIS 1091(0.75) Course ID:006239
History of the United States through the Gilded Age
Examines key political, economic, and social topics from Reconstruction through the Gilded Age that have significantly influenced the American experience. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture
HIS 1092(0.75) Course ID:006240
History of the United States from Imperialism through World War I
Examines key political, economic, and social topics from the Progressive Era through World 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 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 100(3) Course ID:004250
Introduction to Health Information Technology
Includes history, organization, financing and delivery of health care services within a variety of settings. Explores the roles of a health information professional, an introduction to legal aspects of insurance billing and the role of the State Insurance Commission. Covers information on the generic components of the content, structure, collection, maintenance, and dissemination of health care data and how these components relate to record systems and documentation standards. Pre-requisite: Admission to the Health Information Technology Program or Medical Record Coding Specialist Certificate or Release of Information Data Specialist Certificate or by special permission of the Program Coordinator and Computer Literacy. Pre-requisite Or Co-requisite: [(BIO 135 or BIO 137) and (CLA 131 or AHS 115 or MIT 103)], Minimum grade of C. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HIT 105(4) Course ID:007081
Pathophysiology / Pharmacology for Health Information Professionals
Provides an overview of pathophysiology content, review of disease terminology, and clinical presentation with the application of pharmacology to treat human diseases as it relates to the field of health information technology. Pre-requisite or Co-requisite: [HIT 100 and (BIO 135 or BIO 137) and (CLA 131 or AHS 115 or MIT 103)], Minimum grade of C. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

HIT 109(4) Course ID:007083
Clinical Classification Systems I
Applies current government-mandated diagnosis and procedure coding systems in a health care setting. Pre-requisite: HIT 105. Minimum grade C. Pre-requisite or Co-requisite: BIO 139 (if BIO 137 taken), Minimum grade C. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

HIT 110(2) Course ID:004265
Legal & Ethical Issues in Health Information
Includes legal principles and issues that govern health information management and patient medical records. Covers ethical issues as they relate to the security and dissemination of patient health information and corporate compliance programs. Pre-requisite: Admission to the Health Information Technology Program or Medical Record Coding Specialist Certificate or Release of Information Data Specialist or by special permission of the Program Coordinator. Pre-requisite Or Co-requisite: HIT 100. Minimum grade of "C". Lecture : 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

HIT 112(3) Course ID:004266
Reimbursement Methodologies
Introduces the uses of coded data and health information reimbursement and payment systems appropriate to all health care settings including managed care. Includes a history of major U.S. insurance developments. Pre-requisite: Admission to the Health Information Technology Program or Medical Record Coding Certificate or by special permission of the Program Coordinator. [Computer/Digital Literacy and (BIO 135 or BIO 137) and HIT 100 and HIT 105]. Minimum grade of C. Pre-requisite Or Co-requisite: BIO 139 (if BIO 137 was taken), Minimum grade of C. Lecture 2.5 credits (37.5 contact hours), Lab: 0.5 credits (15 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

HIT 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 CIT 240), Minimum grade of "C". Lecture: 2.5 credits (37.5 contact hours), Laboratory: 0.5 credits (15 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

HIT 202(3) Course ID:004269
Clinical Classification Systems II
Includes Current Procedural Terminology (CPT) coding system and the study of hospital based reimbursement issues. Uses a microcomputer and software to apply medical coding procedures. 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: (BIO 139 if BIO 137 was taken), Minimum grade of C. Lecture : 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

HIT 205(3) Course ID:007084
Quality Mgmt & PI - Health Info
Examines principles of performance improvement as it relates to health information technology. Integrates data collection, analyses, evidence-based care, implementation of performance improvement processes, and examines regulatory, accrediting organization, and payor requirements including payment. Pre-requisite or Co-requisite: HIT 109 and HIT 110. Minimum grade of C. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HIT 207(3) Course ID:007085
Clinical Classification Systems III
Introduces the advanced application of clinical classification systems in the reimbursement for health care services and specialty systems such as RBDRS, OASIS, RUGs, Cancer Registry, etc. Reviews fraud, abuse, and regulatory agency requirements relating to coding and billing, Pre-requisite: HIT109 and HIT 202. Minimum grade of "C". Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

HIT 211(4) Course ID:007086
Health Care Management and Statistics
Introduces the principles of organization, supervision, leadership, motivation, and team building within the health information environment. Applies concepts of descriptive statistics, data validity, reliability, and the appropriate use and interpretation of applied health care statistics including the use, collection, arrangement, analysis, presentation and verification of health care data. Pre-requisite: HIT 109 and HIT 110. Minimum grade of "C", Pre-requisite or Co-requisite: HIT 112. Minimum grade of "C". Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HIT 215(4) Course ID:007087
Clinical Practicum
Introduces the student to the clinical practice of health information review, documentation and supervision within a health information management (HIM) department. Observes and assists personnel in assigned areas of job responsibility within the HIM Department. Provides student with onsite project. Exposes student to HIM roles in other departments (e.g., quality, CDM, Cancer Registry, compliance, risk management). Pre-requisite: (HIT 200 and HIT 202 and HIT 204). Minimum grade of "C" or Consent of Program Coordinator. Practicum: 4.0 credits (180 contact hours).
Components: Practicum
Attributes: Course Also Offered in Modules, Technical

HIT 299(0.5 - 4) Course ID:007090
Selected Topics in Health Information Technology: (Topic)
Addresses various health information technology topics, issues, and trends. Includes topics that may vary from semester to semester at the discretion of the instructors; course may be repeated with different topics to a maximum of four credit hours. Lecture: 0.5 - 4.0 credits (7.5 - 60.0 contact hours). Lab: 0.5 - 4.0 credit hours (15 -20 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

HIT 2151(2) Course ID:007088
Clinical Practicum I
Continues the clinical practice of health information review, documentation and supervision within a health information management (HIM) department. Provides observation and assists personnel in assigned areas of job responsibility within the HIM Department. Pre-requisite: (HIT 200 and HIT 202 and HIT 204). Minimum grade of "C" or Consent of Program Coordinator. Practicum: 2.0 credits (90 contact hours).
Components: Practicum

HIT 2152(2) Course ID:007089
Clinical Practicum II
Introduces the student to the clinical practice of health information review, documentation and supervision within a health information management (HIM) department. Provides observation and assists personnel in all assigned areas of job responsibility within the HIM Department. Pre-requisite: (HIT 200 and HIT 202 and HIT 204). Minimum grade of "C" or Consent of Program Coordinator. Practicum: 2.0 credits (90 contact hours).
Components: Practicum

HMS Human Services

HMS 101(3) Course ID:000901
Human Services Survey
Examines community human service agencies regarding their organization, service delivery system, staffing patterns, and funding sources. Explores the origin and development of the social welfare system as well as social
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 relationships through knowledge of communication techniques. Provides activities in which the student will apply this knowledge and these skills. Pre-requisite: HMS101 and HMS 102 with a grade of “C” or better or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture  Attributes: Technical

HMS 104(3) Course ID:000867  Group Dynamics for Human Services
Covers group techniques in clinical or agency settings based on various theoretical models with emphasis on the leadership role, phases of group development, and interaction within the group. Pre-requisite: HMS103 with a grade of “C” or better or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture  Attributes: Technical

HMS 200(3) Course ID:000784  Dynamics of Human Behavior
Includes an historic view of theories of personality development, maladaptive behavior, knowledge of treatment, techniques of adjustment and social implications. Pre-requisite: PSY 110 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture  Attributes: Technical

HMS 210(3) Course ID:000617  Drugs, Society, & Human Behavior
Covers the nature and progression of chemical abuse and dependency, and effects on the individual, family, and society. Includes strategies for prevention, intervention, and treatment. Lecture: 3.0 credits (45 contact hours).
Components: Lecture  Attributes: Technical

HMS 211(3) Course ID: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 theory, suicide prevention, and risk assessment techniques. Covers risk assessment protocols, crisis triage, de-escalation and referral. Introduces clinical, ethical and legal aspects. Pre-requisite: PSY 110 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture  Course Equivalents: SWK 260  Attributes: Technical

HMS 220(3) Course ID:005588  Cultural Diversity in Human Services
Examines current and historical cultural diversity in human services provision. Focuses on cultural self-awareness and cultural competence as they pertain to human services professionals. Explores dominant and minority cultural norms, attitudes, and belief systems. Lecture: 3.0 credits (45 contact hours).
Components: Lecture  Course Equivalents: SWK 220  Attributes: Technical

HMS 223/5(3) Course ID:000818  Teaching Persons with Mental Retardation
Introduces mental retardation with emphasis on understanding and teaching the mentally retarded. Pre-requisite: PSY 110 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture  Attributes: Technical

HMS 240(3) Course ID:017205  Service Coordination for Human Services Professionals
Provides students with experience utilizing techniques and skills used in human services, as well as the theories behind these techniques and skills. Explores skills related to service delivery, behavior management, and supportive services with different populations, including adults, children, families, individuals with mental impairments, mental illnesses, and/or developmental disabilities. Demonstrates skills and techniques including therapeutic communication, interviewing clients, treatment planning, goal setting, documentation & record keeping, crisis intervention, and addressing ethical dilemmas. Lecture: 3 credit hours (45 contact hours).
Components: Lecture  Attributes: Technical

HMS 245(3) Course ID:016148  Psychiatric Mental Health Technician
Prepares students for employment as psychiatric aides or psychiatric technicians. Includes a review of nursing assistant skills, psychopathology, DSM diagnostics, strengths perspective, bio-psycho-social assessments, and psychotropic medications. Explores the responsibilities of mental health technicians who work under the supervision of a psychiatrist, registered nurse, or social worker; as well as participate in the development and implementation of therapeutic treatment plans for persons with mental disorders; particularly those receiving treatment in an inpatient setting. Pre-requisite: NAA 100 or MNA100, PSY110 and HMS103 with a grade of “C” or better or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture  Attributes: Technical

HMS 248(3) Course ID:017206  Foundational Skills in Para-Professional Practice
Applies principles of skills previously learned in Human Services courses which are utilized to develop proficiency related to interviewing, data collection, assessment, goal development, contracting, and documentation. Prepares students for work at the Bachelor of Social Work level. Pre-requisite: HMS 104. Lecture: 3 credit hours (45 contact hours).
Components: Lecture  Attributes: Technical

HMS 251(3) Course ID:017207  Clinical Practices in Human Services
Provides practice and application of principles and skills previously learned in Human Services courses in community agencies. Pre-requisite: HMS 101, HMS 102, HMS 103, HMS 104. Lecture: 1 credit hour (15 contact hours); Clinical: 2 credit hours (120 contact hours).
Components: Clinical, Lecture  Attributes: Technical

HMS 265(3) Course ID:000709  Working with Disabilities in Human Services
Provides an in-depth study of the coordination and provision of services and supports for individuals with disabilities in community settings, including the provision of community-referenced instruction, vocational instruction in community settings, school-to-work transition planning, integrated recreation/rehabilitation opportunities, and personal management/Independent living skills training and supports. Emphasizes development disabilities and mental retardation. Lecture: 3.0 credits (45 contact hours).
Components: Lecture  Attributes: Technical

HMS 299(1-3) Course ID:000522  Special Topics in Human Services: (Topic)
Provides an in-depth knowledge of a Human Services topic and allows students’ choices with coordinator/instructor’s approval on an issue of instruction. Lecture: 1-3 credits (15-45 contact hours). Clinical: 1-3 credits (60-180 contact hours).
Components: Lecture  Attributes: Technical

HON 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 102(3) Course ID:000766  The Medieval and Renaissance World
From the Middle Ages through the Reformation: an interdisciplinary course in intellectual history. Readings vary at the discretion of the faculty. Pre-requisite: Membership in the Honors Program. Lecture: 3 credits (45 contact hours).
Components: Lecture  Attributes: AH - Arts and Humanities

HON 201(3) Course ID:000889  The Early and Modern World
From the development of the modern scientific method through mid-19th century industrialism: an interdisciplinary course in intellectual history. Readings vary at the discretion of the faculty. Pre-requisite: Membership in the Honors Program. Lecture: 3 credits (45 contact hours).
Components: Lecture  Attributes: AH - Arts and Humanities

HON 202(3) Course ID:000832  The Contemporary World
The contemporary world: an interdisciplinary course in intellectual history. Readings vary at the discretion of the faculty. Pre-requisite: Membership in the Honors Program. Lecture: 3 credits (45 contact hours).
Components: Lecture  Attributes: AH - Arts and Humanities

HOS 100(3) Course ID:002365  Introduction to Hospitality Management
Introduces an overview of the hospitality industry. Examines the historical perspective and tracks current trends.
events. Examines the structure of the industry including chains, franchising, ownership, and management. Explores the inner workings of various components of lodging, foodservice and entertainment organizations. Demonstrates real-world application through industry examples and case studies which are used extensively. Lecture: 3.0 credits (45 contact hours). Components: Lecture

HOS 180(3) Course ID:002366

Security for the Hospitality Industry

Analyzes those areas of concern for the protections of assets unique to the hospitality industry, including loss prevention techniques and the application of law for lodging, retailing, clubs, restaurants, lounges and hospitality properties. Examines topics such as industrial safety, disaster control techniques, emergency action planning, and crisis communications. Lecture: 3.0 credits (45 contact hours). Components: Lecture

HOS 200(3) Course ID:002367

Cultural Heritage Tourism

Examines the range of cultural and heritage assets that can become viable tourism attractions and looks at ways of linking quality cultural heritage tourism to community development from effective planning and marketing. Lecture: 3.0 credits (45 contact hours). Components: Lecture

HOS 282(3) Course ID:002370

Tourism Marketing

Examines how and why tourists make destination choices, and learns how to develop a strategic marketing system that emphasizes your destination’s distinctive appeal. 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

HBT 108(3) Course ID:003803

Introduction to Historic Preservation

Introduces historical 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: HBT 101. Lecture: 3.0 credits (45 contact hours). Components: Lecture

HBT 200(2) Course ID:006964

Masonry Repairing and Repair

Introduces masonry materials and repair techniques for historic structures with an emphasis on brick and stone masonry and hands-on repair/repointing. Pre-requisite: ISX 100 or ISX 101 or Consent of Instructor. Lecture/Lab: 2.0 credits (52.5 contact hours). Components: Lecture

HRS 101(3) Course ID:000895

Instructor Consent Required

An Integrated Survey of Western Civilization I

An honors course designed to provide an opportunity for the interested student to study the development of Western Civilization as reflected in the literary, artistic, musical, philosophical, political, and economic developments and movements of the major western cultures from ancient times through the Roman Empire. Lecture: 3 hours. Pre-requisite: Consent of instructor. Components: Lecture

HRS 200(3) Course ID:000765

Independent/Guided-Study Project

Students wishing to engage in an approved, valid research/ study project may receive academic credit through this course. The project may be scheduled concurrently with the academic semester, or in the case of necessary travel, between semesters or during the summer term. Lecture: Variable; Laboratory: Variable. Pre-requisite: Superior academic ability as demonstrated by tests, classwork, and interviews. Components: Laboratory, Lecture

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. Lecture: 3 credits (45 contact hours). Components: Lecture

HST 101(3) Course ID:007362

Health Care Basic Skills I

Introduces student to basic health care skills such as measuring and recording vital signs, assisting licensed personnel, observing and reporting patient conditions, collecting specimens and caring for the hygiene, comfort, and safety of patients in various settings. Prepares the student for entry-level health care positions by incorporating certification for American Heart Association Cardiopulmonary Resuscitation (CPR). Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (45 contact hours). Components: Laboratory, Lecture

HST 102(3) Course ID:007363

Health Care Delivery & Management

Introduces delivery and management of health care including professionalism, health care roles, health care delivery models, and types of health care coverage. Explores legal/ethical issues including HIPAA and confidentiality, electronic medical records and patients’ rights as well as analysis of current trends in health care today. (Appropriate for any student considering entering the Allied Health or Nursing field.) Lecture: 3.0 credits (45 contact hours). Components: Lecture

HST 103(2) Course ID:007364

Health Care Communication

Introduces communication and its various forms as it exists in the health care field. Focuses on verbal, nonverbal, written and oral communication between members of the health team, patient, and caregivers through an interdisciplinary approach. Examines each role with discussion from the perspective of the involved parties. Emphasizes diversity, sociocultural influences, and teamwork. Includes discussion of the media’s role in health care, as well as how health promotion campaigns may be implemented and managed. Appropriate for anyone interested in a career in allied health or nursing. Lecture: 2.0 credits (30 contact hours). Components: Lecture

HST 104(3.5) Course ID:015849

Health Care Basic Skills I with Clinical

Introduces student to basic healthcare skills such as measuring and recording vital signs, assisting licensed personnel, observing and reporting patient conditions, collecting specimens and caring for the hygiene, comfort, and safety of patients in various settings. Prepares the student for entry level healthcare positions by incorporating certification for American Heart Association Cardiopulmonary Resuscitation (CPR). Prepares student for the State Registered Nurse Aide examination. Note: Faculty and clinical sites must comply with applicable Federal and Kentucky laws and regulations including but not limited to 42 USC 1380 and 507 KAR 1:450. Lecture: 2.0 credits (30 contact hours). Lab: 0.5 credit (45 contact hours). Culinary: 0.5 credits (23 contact hours). Components: Clinical, Laboratory, Lecture

HST 121(2) Course ID:007365

Pharmacology

Introduces students to the basics of pharmacology/ pharmacoekinetics, include terms used to describe various
effects and reactions from drug usage. Will also introduce metric system and basic dosage calculations common to most fields of study within allied health and nursing. Lecture: 2.0 credits (30 contact hours).

Components: Lecture

Attributes: Technical

HST 122(3)  Course ID:007366

Clinical Pathophysiology

Explores an introduction to the nature of disease and its effect(s) on body systems. Provides a study of pathology and general health management of diseases and injuries across the lifespan. Includes topics of etiology, symptoms, physical and psychological reactions to diseases and injuries. Pre-requisite: BIO 137 or BIO 135. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Same As Offering: HST 122

Attributes: Technical

HST 122(3)  Course ID:007366

Clinical Pathophysiology

Explores an introduction to the nature of disease and its effect(s) on body systems. Provides a study of pathology and general health management of diseases and injuries across the lifespan. Includes topics of etiology, symptoms, physical and psychological reactions to diseases and injuries. Pre-requisite: BIO 137 or BIO 135. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

HUM Humanities

HUM 120(3)  Course ID:000350

Introduction to the Humanities

Introduces students to at least five disciplines in the humanities, such as art, literature, dance, drama, cinema, philosophy, music, architecture, religion, and mythology. Explores distinctions and relationships between the disciplines through study of their basic methods, themes, and forms. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: AH - Arts and Humanities

HUM 121(3)  Course ID:004906

Peace Studies

This interdisciplinary course is intended as a general introduction to the nature, scope, and methodology of Peace Studies, with a view toward the future. It will explore the history of non-violent movements to effect social change, the role of women in the attainment of peace and protection of life, the tie between social justice and the environment, and the resolution of conflict between individuals, groups, societies, and nations. The course includes the study of activists such as Dr. Martin Luther King, Jr., Gandhi, and Dorothy Day. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: Cultural Studies, AH - Arts and Humanities

HUM 135(3)  Course ID:000582

Introduction to Native American Literature

Introduces the study of the oral and written literature of Native American peoples, emphasizing the cultural and historical context in which it was composed. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: Cultural Studies, AH - Arts and Humanities, SB - Social Behavior Science

HUM 140(3)  Course ID:006814

Introduction to Latino Literature

Analyzes literary texts and other artistic expressions to reveal aspects of Latino cultures such as identity, immigration, indigeneity; relates literary developments and movements to the cultural, political, and religious experiences of Latinos in the U.S.; examines connections between minority writing and mainstream literary works. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

HUM 150(3)  Course ID:0005430

Introduction to African Literature

Presents a cross-cultural and historical approach to the oral and written works by major Black writers of Africa. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: Cultural Studies, AH - Arts and Humanities

HUM 160(3)  Course ID:007110

Introduction to Holocaust Literature and Film

Analyzes literary texts, memoirs, film, and other artistic expressions of the Holocaust to focus on the cultural and political events that caused the Holocaust; examines how subsequent people represent what happened; explores the consequences of the Holocaust in terms of ethical and human rights issues; examines how issues of racism and religious intolerance occurred prior to and since the Holocaust; addresses the Holocaust in a comparative perspective to prior and subsequent acts of genocide in other countries. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Cultural Studies, AH - Arts and Humanities

HUM 202(3)  Course ID:000841

Survey of Appalachian Studies I

Presents an inter-disciplinary introduction to Appalachian history, economy, geography, politics, and culture, primarily through exploration of texts about the region, including fiction, non-fiction, and poetry. Emphasizes geography, Appalachian identity, works, values, and communication. May also include exploration of regional music, traditional arts, drama, photography, film, and, where applicable, community-based explorations of the Appalachian experience. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: Cultural Studies, AH - Arts and Humanities, SB - Social Behavior Science

HUM 203(3)  Course ID:000518

Survey of Appalachian Studies II

Presents an inter-disciplinary introduction to Appalachian history, economy, geography, politics, and culture, primarily through exploration of texts about the region, including fiction, non-fiction, and poetry. Emphasizes migrations, economy, belief, expression, politics and government, and environment. May also include exploration of regional music, traditional arts, drama, photography, film, and, where applicable, community-based explorations of the Appalachian experience. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: Cultural Studies, AH - Arts and Humanities, SB - Social Behavior Science

HUM 204(3)  Course ID:000812

Appalachian Seminar

Examines in detail one or more issues pertinent to the Appalachian region. Topics may include but are not limited to: cultural diversity, religious expression, politics and government, trends in Appalachian literature, or trends in regional sociological scholarship. Topics may vary from semester to semester. This course may be repeated once for credit with a different topic. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: Cultural Studies, AH - Arts and Humanities, SB - Social Behavior Science

HUM 207(3)  Course ID:007049

American Seminar: Topic

Examines issues pertinent to American culture and identity through an interdisciplinary and multi-cultural approach. Includes topics such as cultural diversity, religious expression, politics and government, trends in art, literature, and/or music, political life, media representation, trends in social science which may vary from semester to semester. Course may be repeated once for additional credit when the repeat offering covers a different topic than the initial course offering. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

HUM 220(3)  Course ID:005532

International Film Studies

Introduces the study of movies as narrative art and a cultural document. Requires viewing of films outside of class. Lecture: 3 credits (45 contact hours).

Components: Lecture

Course Equivalents: ENG 281

Attributes: AH - Arts and Humanities

HUM 221(3)  Course ID:005541

Peace Studies

Examines significant texts by Appalachian writers of the last twenty-five years. Emphasizes the development of contemporary Appalachian literary voice and identity. Examines connections or challenges to "traditional" Appalachian heritage and cultural identity. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: Cultural Studies, AH - Arts and Humanities

HUM 251(3)  Course ID:005924

Contemporary Appalachian Literature

Examines significant texts by Appalachian writers of the last twenty-five years. Emphasizes the development of contemporary Appalachian literary voice and identity. Examines connections or challenges to "traditional" Appalachian heritage and cultural identity. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: Cultural Studies, AH - Arts and Humanities

HUM 253(3)  Course ID:006540

Introduction to Film

Introduces the study of movies as a narrative art and a cultural document. Requires viewing of films outside of class. Lecture: 3 credits (45 contact hours).

Components: Lecture

Course Equivalents: ENG 281

Attributes: AH - Arts and Humanities

HUM 282(3)  Course ID:006541

International Film Studies

Enhances student awareness of how cinema has been used as a multicultural tool for observing/analyzing various aspects of a broad range of societies. Includes critical analysis and interpretation of films from various cultures. Explores the films' countries of origin and the cinematic impacts upon the society and the world. Lecture: 3 credits(45 contact hours).

Components: Lecture

Course Equivalents: ENG 282

Attributes: Cultural Studies, AH - Arts and Humanities

IEC Interdisciplinary Early Childhood

IEC 101(3)  Course ID:004130

Orientation to Early Childhood Education

Introduces information related to designing appropriate
Examines community programs that focus on forming partnerships with families to support child development and family well-being. Builds an awareness of family in context of a diverse society to create respect, build reciprocal relationships, and empower families. Required: 10 hours of field experience. 

Components: Lecture 

Attributes: Technical 

IEC 102(3) Course ID:004087 

Foundations of Early Childhood Education 

Focuses on creating an environment and curricula that support cognitive, physical, creative, language, social, and emotional development of infants, toddlers, and preschoolers. Presents knowledge of appropriate child assessment, ethical decision-making in the early childhood profession and accommodations for children with disabilities. Includes ten (10) hours of required field experience. Lecture: 3.0 credits (45 contact hours). 

Components: Lecture 

Attributes: Technical 

IEC 120(3) Course ID:004131 

Health, Safety and Nutrition 

Examines the components and skills necessary for maintaining a healthy and safe environment for young children. Lecture: 3 Credits (45 contact hours). 

Components: Lecture 

Attributes: Technical 

IEC 130(3) Course ID:004132 

Early Childhood Development 

Addresses the physical, language, cognitive, social and emotional development of children beginning with conception. Includes methods of observation that are practiced during field experiences. This course requires ten (10) hours of field experience. Lecture: 3 credits (45 contact hours) 

Components: Lecture 

Attributes: Technical 

IEC 170(3) Course ID:005081 

Observation and Assessment 

Presents the process of observation, documentation, and assessment. Includes assessment skills, identification of appropriate methods and instruments, and linking results to planning, guidance, and instruction. Emphasizes recommended practices, ethical and legal responsibilities for educators, and the role of the family in the process. Includes ten (10) hours of required field experience. Pre-requisite: IEC 101 or IEC 102 or IEC 130 or permission of IECE program coordinator. Lecture: 3 credits (45 contact hours). 

Components: Lecture 

Attributes: Technical 

IEC 180(3) Course ID:004088 

Approaches to Early Childhood Education Curriculum 

Introduces theoretical perspectives for curriculum in early childhood programs. Teaches the design of curricula and examines the societal factors that impact programming for children. Includes ten (10) hours of required field experience. Pre-requisite: IEC 101 or IEC 102 or IEC 130 or permission of IECE program coordinator. Lecture: 3 credits (45 contact hours). 

Components: Lecture 

Attributes: Technical 

IEC 200(3) Course ID:004133 

Child Guidance 

Examines appropriate methods for guiding children and promoting the development of prosocial behaviors. This course requires ten (10) hours of field experience. Pre-requisite: IEC 101 or IEC 130 or permission of the IECE program coordinator. Lecture: 3 credits (45 contact hours). 

Components: Lecture 

Attributes: Technical 

IEC 210(3) Course ID:005580 

Families and Communities in Early Childhood Education 

Examines community programs that focus on forming relationships with families to support child development and family well-being. Builds an awareness of family in context of a diverse society to create respect, build reciprocal relationships, and empower families. Required: 10 hours of field experience. Lecture: 3 credits (45 contact hours). 

Components: Lecture 

Attributes: Technical 

IEC 216(3) Course ID:004135 

Literacy and Language in IEC 

Presents the interaction of language therapy and instruction techniques and the resulting effect on language and literacy development. This course requires five (5) hours of required field experience. Pre-requisite: IEC 180 or permission of the IECE program coordinator. Lecture: 3 credits (45 contact hours). 

Components: Lecture 

Attributes: Technical 

IEC 221(3) Course ID:004136 

Creative Expressions in IEC 

Addresses the role of creativity as it relates to the development of young children. Studies a variety of art music, drama, and movement experiences that encourage creative expression in young children. Includes the implementation of appropriate creative activities in a child-centered environment. This course requires five (5) hours of field experience. Pre-requisite: IEC 180 or permission of the 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 establishing, operating and/or owning an early childhood program. Includes legal forms for early childhood programs, finance, accounting, insurance, governmental regulations and assistance, economics, marketing and management principles. Lecture: 3 credits (45 contact hours). 

Components: Lecture 

Attributes: Technical 

IEC 235(3) Course ID:004137 

Introduction to Inclusive Education 

Presents the types of exceptionalities that occur in the development of children with an emphasis on state and federal laws that impact services. Introduces assessment, referral processes and sources, education plans, family service plans, center-based and home-based care, adaptations and assistive technology, and ethical considerations. This course requires ten (10) hours of field experience. Pre-requisite: IEC 180 or permission of the IECE program coordinator. Lecture: 3 credits (45 contact hours). 

Components: Lecture 

Attributes: Technical 

IEC 240(3) Course ID:004138 

Administration of Early Childhood Education 

Focuses on the administrative responsibilities of creating and implementing education programs for children and their families with an emphasis on the administrative, organizational, and legal responsibilities in operating early childhood programs. Includes ten (10) hours of required field experience. Lecture: 3 credits (45 contact hours). 

Components: Lecture 

Attributes: Technical 

IEC 246(3) Course ID:004139 

Sciences and Math in IEC 

Applies the concepts and principles of science, social studies, mathematics, and health in learning experiences for young children. Includes five (5) hours of required field. Pre-requisite: IEC180 or permission of IECE program coordinator. Lecture: 3 credits (45 contact hours). 

Components: Lecture 

Attributes: Technical 

IEC 250(3) Course ID:004089 

School Age Child Care 

Provides the student with specialized knowledge, skills, and abilities for working with school age children. Lecture: 3 credits (45 contact hours). 

Components: Lecture 

Attributes: Technical 

IEC 260(3) Course ID:004140 

Infant and Toddler Education and Programming 

Examines the developmental and educational needs of children from birth to age three. Provides an opportunity for students to plan, prepare, and implement the care and educational environment for children birth to age three by integrating an understanding of the physical, social, emotional, and cognitive development with developmentally appropriate practices for each stage. Includes 10 hours of required field experience, which may be waived by the IECE program coordinator for students concurrently enrolled in IEC 190 or IEC 291. Lecture: 3 credits (45 contact hours). 

Components: Lecture 

Attributes: Technical 

IEC 291(3) Course ID:004141 

Instructor Consent Required 

IECE Practicum/Cooperative Education 

Requires participation in supervised teaching experiences in early childhood settings where practical skills are applied. Includes observing, planning, implementing and assessing learning experiences based on developmentally appropriate practices. Required: One Hundred and eighty (180) field hours of experience. Pre-requisite: Program Coordinator’s Approval. Practicum: 3.0 credits (180 contact hours/ratio 60:1). 

Components: Practicum 

Attributes: Technical 

IES International Exchange Student 

IES 235(1 - 3) Course ID:005198 

International Student Experience 

First-hand exposure to cultures outside the United States. Includes travel and may include study, visits to corporate, government offices, cultural activities and/or work assignments. Pre-requisite: IES 233. Practicum: 1-3 credits (60-180 contact hours). 

Components: Practicum 

Attributes: Technical 

IET Integrated Engineering Technology 

IET 102(2) Course ID:007134 

Preventive Maintenance 

Introduces how routine work is done to keep equipment in good working order and to optimize its efficiency and accuracy. Addresses regular routine cleaning, lubricating, testing, checking for wear and tear and eventually replacing components to avoid breakdown. Introduces students to the various types and styles of predictive and preventive maintenance components, principles, and practices used in industrial applications. Lecture/Lab: 2.0 credits (40.5 contact hours). 

Components: Lecture 

Attributes: Course Also Offered in Modules, Technical 

IET 104(2) Course ID:007137 

Blueprint Reading/Schematics 

Introduces the fundamental information in drafting necessary to retrieve read, manipulate and understand a mechanical part print. Instructs students to recognize, identify, describe, and relate the components used in schematics, along with their symbols and connectors, to describe electrical, electronics, pneumatics, hydraulics, and piping circuits, as well as welding and joining symbols interpretation. Lecture/Lab: 2.0 credits (37.5 contact hours). 

Components: Lecture 

Attributes: Course Also Offered in Modules, Technical 

IET 107(3) Course ID:007140 

Basic Electricity/Electronics 

Introduces the various elements of basic electricity including the identification of electrical symbols as well
as interpretation of schematics, cross referencing prints, tracing circuits, interpreting sequential function charts, line drawings and time charts. Introduces the student to electrical measurement instruments, including digital and analog multimeters, clamp-on ammeters, megohmmeters, and the oscilloscope. Concentrates on control logic components and circuit function. Introduces the student to solid state devices and applications. Lecture/Lab: 3.0 credits (67.5 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

IET 108(5) Course ID:007145
Mechanical Drive Systems
Introduces safety, maintenance techniques and procedures used to maintain industrial equipment, including industrial couplings, chains, sprockets, belts, bearings, shafts, brakes, clutches, gears and cams. Addresses the principles of power transmission, calculations of speed and force and how they affect a power transmission system. Lecture/Lab: 5.0 credits (112.5 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

IET 109(3) Course ID:007152
Safety
Introduces OSHA and the OSHA regulations that apply to the auto manufacturing industry. Introduces safety rules and issues in the use of overhead cranes, hoists, rigging equipment, attachment components, calculating sling angle stresses, and safe lifting and turning loads. Provides the knowledge and skills necessary to help sustain life and minimize the consequences of injury or sudden illness to meet the various training needs of those in workplace, school or community settings. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

IET 130(5) Course ID:016096
Lean Manufacturing
Instructs the students in the basic concepts of a safety culture and hazard prediction training. Introduces the fundamental SS process, the Toyota Production System for Maintenance, the Toyota Problem Solving method, the Toyota Drive and Dedication model, and the Toyota Maintenance Reliability Process and Reliability Centered Maintenance Analysis. Lecture: 5.0 credits (75 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

IET 200(1) Course ID:017627
General Tools
Introduces safe and effective use of hand and power tools. Emphasizes the application and maintenance of the most common tools used by multi-skilled industrial maintenance technicians. Integrated Lecture/Lab: 1 credit (16.5 contact hours).

Components: Integrated Laboratory, Integrated Lecture
Attributes: Technical

IET 201(6) Course ID:007180
Electrohydraulics/Pneumatics
Explains the fundamental concepts of fluid power and electro-fluid power systems. Covers the principles of fluid power, calculations of physical properties of fluids and their ability to do work. Introduces the various fluid power components, symbols, circuits. Introduces troubleshooting of fluid power 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(5) Course ID:007172
Programmable Logic Controllers
Introduces Programmable Logic Controllers (PLC) and elements needed for an automated industrial control system. Introduces memory and project organization within a PLC and provides instruction in basic numbering systems, computer and PLC terminology. Introduces PLC control functions, program structures, language standards, wiring and troubleshooting methods, as well as, real world communications. Requires the student to program a PLC which may include a combination of ladder logic, structured text, sequential function chart and/or function block languages. Includes various protocols of industrial communications used between PLC controlled machines, PLC to PLC, PLC to computer, and computer to computer. Lecture/Lab: 5.0 credits (109.5 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

IET 205(4) Course ID:007167
Robot Maintenance
Introduces robotics in regard to industrial robotic safety standards, applications, types of classes for industrial robots, basic system components, robotic motion concepts, key programming techniques, definitions and the common terms associated with computer integrated manufacturing (CIM) as it relates to robotic cells. Instructs students on the mastering concepts of preventive maintenance techniques required for a robot and their backup systems in addition to recovery procedures needed to interpret robot error codes and perform a safe recovery start up procedure on robotics equipment. Lecture/Lab: 5.0 credits (82.5 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

IET 206(5) Course ID:007161
Controls and Instrumentation
Covers the diversity of control devices including: theory of operation, applications in automation control and troubleshooting and repair. Introduces identification, installation, replacement, and troubleshooting of automation controller circuit boards and modules. Includes the installation, maintenance and troubleshooting of common input devices. Provides for discussion of methods of motor controls including on-off, proportional, integral, and derivative including PID loop tuning and quality. Covers automation output devices including AC, DC, and servo motors, variable speed drives, relays, motor starters and sizing of components for various applications. Lecture/Lab: 5.0 credits (105 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

IET 207(1) Course ID:007135
Intro to Basic Electricity
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 207(1) Course ID:007141
Intro to Basic Electricity
Introduces the various elements of basic electricity including the identification of electrical symbols as well as interpretation of schematics, cross referencing prints, tracing circuits, interpreting sequential function charts, line drawings and time charts. Lecture/Lab: 1.0 credit (21 contact hours).

Components: Lecture

IET 207(2) 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 207(3) Course ID:007143
Control Circuits & Components
Concentrates on control logic components and circuit function. Examines combinational and sequential ladder logic designs with great attention to reliability of function. Requires construction of various circuits that demonstrate key component functionality concepts. Requires troubleshooting using analytical techniques, multimeters, chart recorders, and oscilloscopes. Lecture/Lab: 1.0 credit (22.5 contact hours).

Components: Lecture

IET 207(4) 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 208(0.5) Course ID:007146
Basic Mechanical Power Systems
Introduces the basic concepts of mechanical power transmission. Addresses the principles of power transmission, calculations of speed and force and how they affect a power transmission systems ability to perform work. Emphasizes the basics of mechanical drawing, safe work practices for working around machinery, common hand tools associated with maintenance work and some of the more common terms and definitions. Lecture : 0.5 credits (7.5 contact hours).

Components: Lecture

IET 208(0.3) Course ID:007147
Flexible Drives
Introduces various types and styles of flexible belt and chain drives, including V-belts, chains, sprockets, and components. Lecture/Lab: 0.3 credit (7.5 contact hours).

Components: Lecture

IET 208(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 208(4.1) 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).
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 drilling 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 sawing operations required by multi-skilled industrial maintenance technicians. Lecture/Lab: 0.4 credits (10.5 contact hours).

Components: Lecture
IET 1206(0.7) Course ID:007192
Hand and Power Tools
Introduces safe and effective use of hand and power tools. Emphasizes the application of this course to the most common tools used by multi-skilled industrial maintenance technicians. Lecture/Lab: 0.7 credits (16.5 contact hours).

Components: Lecture
IET 1207(0.9) Course ID:017390
Measuring and Layout Tools
Introduces measuring and layout tools commonly used in industrial environments. Emphasizes the safe application of the most common tools used by multi-skilled industrial maintenance technicians. Lecture 0.9 credits (21 contact hours).

Components: Lecture
IET 1301(1) Course ID:016097
Safety Culture
Introduces the importance of cultivating daily safe work habits and the predictable negative results of not being safety-conscious in the workplace. Emphasizes the importance of basic safety culture and prepares them to participate in, conduct, and lead safety walk-throughs. Introduces the student to Kiken Yoshi Training (KYT) or Hazard Prediction Training. Prepares the student to conduct risk assessment activities, construct safety boards, and formulate individual safety commitments. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
IET 1302(1) Course ID:016098 SS
Introduces the fundamental SS process involving the five step progression described by the Japanese words Seiri, Seiton, Seisei, Seiketsu, and Shitsuke. Instructs the student in the sequence involving classifying and sorting, cleaning and cleaning up, standardizing, and developing a process of sustainable practice in the workplace. Fosters the development of a workplace organization in which safety and efficiency are always paramount. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
IET 1303(1) Course ID:016099
Total Production Management
Introduces the student in the concepts of value-added product, maintenance value-added product, value-added work and 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 Mus 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 Problem Solving method, 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 mode risks and countermeasures. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
IET 2011(1) Course ID:007179
Electrohydrodraulics/Pneumatics Fundamentals
Explains the fundamental concepts of fluid power. Covers the principles of fluid power, calculations of physical properties of fluids and their ability to do work. Introduces the various fluid power components, symbols, circuits. Introduces troubleshooting of fluid power components and systems with an emphasis on safety. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
IET 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 fluid through a system. Focuses on fittings, hose, and steel tubing used in fluid power systems. Lecture/Lab: 0.4 credits (9 contact hours).

Components: Lecture
IET 2014(0.8) Course ID:007176
Pumps, Actuators, Accumulators
Introduces different types of pumps, actuators and accumulators used in fluid power systems which create flow, 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
Electrohydrodraulics/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 (16 contact hours).

Components: Lecture

IET 2017(0.9) 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 2031(0.6) Introduction to PLCs
Introduces various elements of basic PLCs including the identification of programmable logic control systems as well as an overview of PLC system architectures. Provides instruction in basic numbering systems, computer terminology, PLC functions, program structures, language standards, point addressing basics. Lecture: 0.6 credits (9 contact hours).

Components: Lecture

IET 2032(1.4) 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) 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) 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) 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 computer integrated manufacturing (CIM) as it relates to robotics. Lecture/Lab: 0.6 credits (10.5 contact hours).

Components: Lecture

IET 2052(1.5) 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) 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

IFM 111(3) Client-side Informatics Software
Examines client-side informatics software used to define, analyze, design, collect, structure, manage, and share organizational data. Examines data through charting and statistical analysis. Applies informatics concepts using industry-standard software, such as spreadsheet packages, database management systems, data/document sharing software, and collaboration software. Pre-requisite: Computer Literacy or consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Technical

IMF 122(3) Principles of Informatics
Introduces students to the concepts associated with an information-centric world, information systems, and includes the definition of information and how it is communicated. Prepares students to understand how information systems support data-driven decision making strategies, information sharing technologies, data encoding, cooperative skills, knowledge sharing, and organizing of information. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Technical

IFM 215(3) Business Systems Analysis
Introduces students to systems analysis and general design, analysis strategies, tools, and techniques for documenting current systems and developing proposed systems; systems modeling, data modeling, cost/benefit trade-offs, and project management; and development of a comprehensive systems analysis project. Pre-requisite: Digital Literacy or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Technical

IMD 115(3) 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 124(3) 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. Co-requisite: CIT221 OR IMD221 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Course Equivalents: CIT 124

Attributes: Technical

IFM 100(3) Course ID:000764
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

IFM 215(3) Course ID:000776
Business Information and Analytics
Introduces students to the fundamentals of business intelligence, analytics, and data science. Prepares both business and information technology students to understand how business intelligence, analytics, and data sciences provide a basis for the decisions needed to be competitive in the global marketplace Pre-requisite: Digital Literacy or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Technical

IMD Information Management and Design
IMD 100(3) Course ID:000764
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 115(3) Course ID:000765
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 124(3) Course ID:016264
Introduction to Game Development
Presents an overview of the game development process including game development history, platforms, goals, genres, players, story and character development, gameplay, levels, interfaces, audio, development processes, development team roles, marketing, and maintenance. Provides opportunities to play and analyze games and to complete portions of game designs. Pre-requisite: CIT105 OR IMD100 OR Consent of Instructor. Co-requisite: CIT221 OR IMD221 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Course Equivalents: CIT 124

Attributes: Technical
IMD 126(3)  Course ID:004781
Introduction to Desktop Publishing
The use of microcomputers for designing and producing various publications is introduced. Hands-on experience is provided in using desktop publishing software and a laser printer to produce high-resolution publications, such as flyers, brochures, business forms, and newsletters. Students are also introduced to basic design techniques, type and graphics layout, and the related terminology. Pre-requisite: IMD 100 or equivalent skills. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 127(3)  Course ID:005044
Vector Design with Adobe Illustrator
In this course, students will be introduced to and develop vector (line-based) graphics using industry-standard application(s). Topics covered will include examining the theory behind vector graphics, investigating the advertising and print industry’s use of this type of graphic, creation of graphics from simple to increasingly complex, as well as development of a portfolio of vector art. Pre-requisite: IMD 115 or concurrent or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 128(3)  Course ID:005045
Raster Design with Adobe Photoshop
Introduces raster (photo or pixel-based) graphics using industry-standard application(s). Covers the theory behind raster graphics, investigating the advertising and print industries’ use of this type of graphic, creation and manipulation of raster-based graphics from simple to increasingly complex, the use of Photoshop in web design, video editing and compositing with Photoshop, as well as development of a portfolio of raster art and photo editing and manipulation samples. Pre-requisite: IMD 100 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 133(3)  Course ID:005046
Beginning Web Design
Introduces the creation and publication of a web site and covers extensible hypertext markup language (XHTML) and introductory cascading style sheets (CSS). Covers hand-coding for web design, along with the incorporation of graphics into web sites and publishing. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 180(3)  Course ID:004776
Intermediate Web Design
Utilizes content management systems (CMS) for web design with an emphasis on customer 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 desired content for employers and clients. Pre-requisite: IMD 133 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 210(3)  Course ID:004787
Microsoft Office Applications
Provides 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: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 221(3)  Course ID:016265
Computer Graphics
Introduces basic computer graphics with an emphasis on graphics for game design. Instructs students in practical aspects of graphics such as color, ray tracing, rasterization, shading, mapping, light, and shadow. Pre-requisite: CIT105 OR IMD100 OR Consent of Instructor. Co-requisite: CIT124 OR IMD124 OR Consent of Instructor. Lecture: 3.0 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: 3.0 credits (45 contact hours).
Components: Lecture
Course Equivalents: CIT 221
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: CIT/IMD124 AND CIT/IMD222 OR Consent of Instructor. Co-requisite: CIT273 OR IMD273 OR Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Course Equivalents: CIT 223
Attributes: Technical

IMD 226(3)  Course ID:004791
Advanced Desktop Publishing
Requires the validation of digital pre-press and print production knowledge necessary for successful output of commercial graphic design projects. Emphasizes raster image creation, editing, and preparation for output, offset printing processes, color separations, spot color usage and preparation, vector graphic usage, font usages and standards, PDF document creation and preparation, and advanced desktop publishing techniques. Pre-requisite: IMD 126 and IMD 127 and IMD 128. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 228(3)  Course ID:006833
Advanced Photoshop
Introduces advanced techniques for manipulating and editing raster (photo or pixel-based) graphics using industry-standard application(s). Examines new software features, advanced methods for file optimization and color correction, making complex selections and combining multiple images to create works of art, as well as development of a professional portfolio of raster art and photo editing and manipulations. Pre-requisite: IMD 115 and IMD 128. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 230(3)  Course ID:004793
Advanced Web Design
Explores existing and emerging web technologies through the use of web designers. Covers HTML, CSS and content management systems (CMS) for responsive web design. Instructs students in responsive website development using HTML, CSS and photo-editing software. Students will conclude the course via the creation of a comprehensive, dynamic, responsive website utilizing current technologies. Pre-requisite: IMD 180 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 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: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 255(3)  Course ID:007327
Digital Video Editing II
Covers advanced techniques within cinematic arts and editing such as multi-cam editing, visual correction, advanced color grading, 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 trimming 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.
Components: Lecture
Attributes: Technical

IMD 258(3)  Course ID:007328
Visual Effects for Video
Covers the creation of visual effects in cinematic arts including basic animation with text and 2D objects and 3D object creation and animation using an industry-standard visual effects software program. Students will focus on animating layers and working with masks, distortion, color correction, motion stabilizing, and particle simulation. Projects will be exported and packaged for the web and DVD. Pre-requisite: IMD 250 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 270(3)  Course ID:005214
Professional Practices
Designed to assist students develop strategies for entering the Information Management & Design profession by editing and refining portfolios and creating correspondence to meet professional standards, designing resumes and other self-promotional materials, developing a job search strategy, 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 273(3) Course ID:016269
Game Production
Provides students with the opportunity to produce a fully playable 3D video game using assets and materials created in previous courses; employs an industry-standard game engine to meld 3D content, audio, narrative, character, and environment into a professional and enjoyable video game experience. Pre-requisite: CIT/IMD 124 AND CIT/IMD 222 OR Consent of Instructor. Co-requisite: CIT 223 OR IMD 223 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Course Equivalents: CIT 273
Attributes: Technical

IMD 274(3) Course ID:016270
Seminar in Game Development
Encompasses the three phases of game design and development: conception, creation, and marketing in this project-oriented seminar. Requires participation in class presentations, individual and group projects, development of a game, and a portfolio. Pre-requisite: (CIT 223 OR IMD 223) AND (CIT 273 OR IMD 273) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Course Equivalents: CIT 274
Attributes: Technical

IMD 275(3) Course ID:004798
Information Management and Communications
Introduces management principles and techniques as they apply to various types of businesses. Includes research emphasis on information management, team concepts, personnel management, communications and business plans. Explores concepts within freelance, small business, and corporate entities. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 277(3) Course ID:006837
Typography
Explores the use of typography in the context of graphic design and discover the importance of type as a tool for visual problem solving and communication. Explores origins of typography, font usage, the anatomy and different kinds of type, software used for type manipulation, and how basic principles and elements of design (color, hierarchy, form, rhythm, etc.) are applied to typography. Requires the development of portfolio of individual typography-based designs. Pre-requisite: (IMD 115 and IMD 126 and IMD 127and IMD 128) or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 280(3) Course ID:004799
Portfolio Practicum: Graphic Design
Provides an opportunity to assemble a comprehensive graphic design portfolio using skills learned within the IMD Graphic Design core courses, which will assess students overall graphic design skills. Provides IMD students with a professional design portfolio to aid in the search for employment. Provides the capstone for students choosing the graphics option. Uses presentation, vector, raster, and desktop publishing software to create design-intensive portfolio pieces. Pre-requisite: (IMD 127 and IMD 128 and IMD 185 and IMD 226) or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 290(3) Course ID:005779
Photography
Teaches students basic photography principles and skills to compose technically proficient photographs. Emphasis is on basic camera operations, with exploration of film speeds, apertures, and shutter speeds. Explores composition and elements of lighting. Uses slide lectures, a brief overview of contemporary photography to acquaint students with past and current photography. Lecture: 3 Credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 292(3) Course ID:005215
Portfolio Practicum: Web Design
Requires a comprehensive web site design portfolio using skills learned in the IMD Web Design core courses to assess students' overall skills learned in the web design option. Provides IMD students with a professional design portfolio to aid in the search for employment. Uses industry-standard design software programs and dynamic scripting languages to assemble the comprehensive design portfolio. Pre-requisite: IMD 133, 180 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

IMG 100(7) Course ID:004294
Radiography I
Focuses on the application and evaluation of radiography in the clinical setting. Integrates concepts and knowledge of anatomy, pathology, procedures, patient care, and imaging principles. Develops technical and procedural knowledge through observation and participation in radiographic studies. Pre-requisite: Admissions to the radiography program and BIO 139 with a minimum grade of "C". Co-requisite: IMG 101. Lecture: 6.0 credits (90 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

IMG 101(4) Course ID:004295
Clinical I
Focuses on the application and evaluation of radiography in the clinical setting. Integrates concepts and knowledge of anatomy, pathology, procedures, patient care, and imaging principles. Develops technical and procedural knowledge through observation and participation in radiographic studies. Pre-requisite: Admissions to the radiography program and BIO 139 with a minimum grade of "C". Co-requisite: IMG 100. Clinical: 4.0 credits (240 contact hours).
Components: Clinical
Attributes: Technical

IMG 104(2) Course ID:005604
Introduction to Radiography
Provides an overview of the foundations of radiography and the practitioner's role in health care delivery. Examines the principles, practices, and policies of health care organizations, in addition to the professional responsibilities of the radiographer. Incorporates basic tube function and radiation protection, as well as legal and ethical considerations. Provides a brief overview of other imaging modalities and patient treatments. Pre-requisite: BIO 137 with a minimum grade of C. Pre-requisite or Co-requisite: BIO 139. If taken as a Pre-requisite, a minimum grade of C is required. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

IMG 106(2) Course ID:005605
Patient Care in Radiography
Provides the concepts of optimal patient care, including consideration for the physical and psychological needs of the patient and family. Describes routine and emergency patient care procedures, as well as infection control procedures using standard precautions. Identifies the role of the radiographer in patient education. Pre-requisite: BIO 137. Pre-requisite or Co-requisite: BIO 139. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
Advanced Patient Care in Radiography
Provides basic concepts of pharmacology, venipuncture and administration of diagnostic contrast agents. Explains the classification and scheduling of drugs. Emphasizes the appropriate delivery of patient care during radiographic procedures requiring the administration of contrast agents. Provides the knowledge base and practical skills necessary to perform special diagnostic studies. Covers fluoroscopic procedures requiring informed consent, aseptic technique, and the administration of various contrast media. Pre-requisite: IMG 104, IMG 106, IMG 108 and IMG 109. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours). Components: Laboratory, Lecture Attributes: Technical

Radiographic Procedures II
Provides the knowledge base necessary to perform standard imaging procedures of the spine, cranium, facial bones, paranasal sinuses, upper gastrointestinal, lower gastrointestinal, urinary system, as well as fluoroscopic procedures requiring informed consent, aseptic technique, and the administration of various contrast media. Covers criteria for optimal diagnostic images, including anatomical structures shown, as well as corrective positioning action to be taken for sub-optimal images. Pre-requisite: IMG 104, IMG 106, IMG 109 and IMG 108. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours). Components: Laboratory, Lecture Attributes: Technical

Clinical Practice II
Continues the IMG 109 clinical experience. Designed to sequentially develop, apply, critically analyze, integrate, synthesize and evaluate concepts and theories in the performance of radiologic procedures. Provides structured clinical experience through sequential competency-based assignments that focus on the upper and lower extremities, bony and visceral thorax, abdomen, vertebral column, cranium, facial bones, and contrast studies of the digestive and urinary system. Pre-requisite: IMG 104, IMG 106, IMG 108 and IMG 109. Clinical: 3.0 credits (180 contact hours). Components: Clinical Attributes: Technical

Clinical III
Continues IMG 111 by focusing on the application and evaluation of radiography in the clinical setting. Integrates concepts and the knowledge of anatomy, pathology, procedures, patient care, and imaging principles. Emphasizes on radiographic mobile studies and image analysis. Develops technical skills and procedural knowledge through observation and participation in radiographic studies with opportunities for more responsibility and independence with previously learned procedures. Pre-requisite: IMG 111 with a minimum grade of “C”. Clinical: 3.0 credits (180 contact hours). Components: Clinical Attributes: Technical

Clinical Practice III
Continues the IMG 119 clinical experience. Designed to sequentially develop, apply, critically analyze, integrate, synthesize and evaluate concepts and theories in the performance of radiologic procedures. Provides structured clinical experience through sequential competency-based assignments that focus on the upper and lower extremities, bony and visceral thorax, abdomen, vertebral column, cranium, facial bones, and contrast studies of the digestive and urinary systems, as well as surgical radiographic procedures. Pre-requisite: IMG 114, IMG 116, IMG 118 and IMG 119. Clinical: 3.0 credits (180 contact hours). Components: Clinical Attributes: Technical

Radiographic Procedures III
Provides entry-level radiography students with an introduction to and basic understanding of the operation of a computed tomography (CT) device. Pre-requisite: IMG 209. Lecture: 1.0 credit (15 contact hours). Components: Lecture Attributes: Technical

Clinical Practice IV
Continues the IMG 209 clinical experience. Designed to sequentially develop, apply, critically analyze, integrate, synthesize and evaluate concepts and theories in the performance of radiologic procedures. Provides structured clinical experience through sequential competency-based assignments that focus on the upper and lower extremities, bony and visceral thorax, abdomen, vertebral column, cranium, facial bones, and contrast studies of the digestive and urinary systems, surgical radiographic procedures and special diagnostic procedures such as myelograms, arthrogams, hepatobiliary studies, and venography. Pre-requisite: IMG 209. Clinical: 6.0 credits (360 contact hours). Components: Clinical Attributes: Technical

Radiographic Procedures IV
Re-introduces advanced modalities used to complement diagnosis imaging. Covers the principles of radiation biology, radiation protection, pathology, pharmacology principles and systemic classification of diseases. Continues the discussion of professional and legal standards needed to practice by reviewing radiographic topics in preparation for a career as an imaging professional. Pre-requisite: IMG 210 with a minimum grade of “C”. Co-requisite: IMG 221. Lecture: 3.0 credits (45 contact hours) Lab: 1.0 credit (30 contact hours). Components: Laboratory, Lecture Attributes: Technical

Radiation Protection & Biology
Provides an overview of the principles of the interaction of radiation with living systems. Radiation effects on molecules, cells, tissues and the body as a whole are presented. Discusses factors affecting biological response, including acute and chronic effects of radiation. Presents an overview of the principles of radiation protection, including the responsibilities of the radiographer for patients, personnel and the public. Incorporates radiation health and safety requirements of federal and state regulatory agencies, accreditation agencies and health care organizations. Pre-requisite: IMG 214 and IMG 216 and IMG 219. Lecture: 2.0 credits (30 contact hours). Components: Lecture Attributes: Technical

Radiographic Pathology
Introduces concepts related to disease and etiological considerations with emphasis on radiographic appearance of disease and impact on exposure factor selection. Pre-requisite: IMG 214 and IMG 216 and IMG 219. Lecture: 1.0 credit (15 contact hours). Components: Lecture Attributes: Technical

Radiography Seminar
Provides capstone information needed by the entry level radiographer, includes the radiography practitioner’s role in the health care delivery system, continuing education, and professional development, advanced modalities, accreditation organizations, national registration and state licensure, as well as the benefits of membership and activity in professional societies. Examines the principles, practices, and policies of health care organizations, and the delivery of health care in the United States. Pre-requisite: IMG 214, IMG 216 and IMG 219. Lecture: 2.0 credits (30 contact hours). Components: Lecture Attributes: Technical
IMT 160(2) Course ID:017373
FANUC Robot Operations
Introduces students to basic FANUC robotics programming as well as providing introductory operational skills needed in an industrial environment. Integrated Lecture: 1 credit (15 contact hours). Integrated Lab: 1 credit (30 contact hours).
Components: Integrated Laboratory, Integrated Lecture Attributes: Technical

IMT 161(2) Course ID:017374
KUKA Robot Level 1 Robot Operation
Introduces students to basic KUKA robotic programming as well as providing introductory operational skills needed in an industrial environment. Integrated Lecture: 1 credit (15 contact hours). Integrated Lab: 1 credit (30 contact hours).
Components: Integrated Laboratory, Integrated Lecture Attributes: Technical

IMT 162(2) Course ID:017377
YASKAWA/MOTOMAN Robot Operations
Introduces students to basic YASKAWA/MOTOMAN robotic programming as well as providing introductory operational skills needed in an industrial environment. Integrated Lecture 1.0 credit hour (15 contact hours). Integrated Lab 1.0 credit hour (30 contact hours).
Components: Integrated Laboratory, Integrated Lecture Attributes: Technical

IMT 198(1 - 8) Instructor Consent Required
Practicum
Provides supervised on-the-job work experience related to the student's educational objectives. Students participating in the Practicum do not receive compensation. Pre-requisite: Permission of Instructor. Practicum: 1-8 credits (75-600 contact hours).
Components: Practicum Attributes: Technical

IMT 199(1 - 8) Course ID:001590
Instructor Consent Required
Cooperative Education
Provides supervised on-the-job work experience related to the student's educational objective. Students participating in the Co-op Education program receive compensation for their work. Pre-requisite: Permission of Instructor. Co-op: 1 - 8 credits (75-600 contact hours).
Components: Co-Op Attributes: Technical

IMT 200(4) Course ID:007372
Industrial Robotics and Robotic Maintenance
Provides the industrial maintenance student an introduction to the theory of robots including applications, basic programming, components, industrial robotic safety standards, industrial robots classifications, key programming techniques, robotic motion concepts, and terminology. Instructs students on the concepts of predictive and preventive maintenance techniques required for a robot and their backup systems and recovery procedures. Provides the opportunity for the industrial maintenance student to develop, set up, and integrate work cells into manufacturing systems at a beginning level. Pre-requisite: IMT 110 and IMT 111 or Consent of Instructor. Lecture/Lab: 4 credits (90 contact hours).
Components: Lecture Attributes: Technical

IMT 220(3) Course ID:001592
Industrial Maintenance Electrical Motor Controls I
Addresses the common symbols used in motor control circuits, the fundamentals of electrical schematics and wiring diagrams, the principles of relays, motor starters, switches, pilot devices, sensing devices, and indicator lights, and introduces the different types and operations of basic motor control circuits. Pre-requisite: IMT 110 & IMT 111. Co-requisite: IMT 221. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules, Technical

IMT 221(2) Course ID:001593
Industrial Maintenance Electrical Motor Controls I Lab
Includes an application of common symbols used in motor control circuits, fundamentals of electrical schematics and wiring diagrams, principles of relays, motor starters, switches, pilot devices, sensing devices, indicator lights, and the different types and operations of basic motor control circuits. Pre-requisite: (IMT 110 and IMT 111) or consent of instructor. Co-requisite: IMT 220. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Course Also Offered in Modules, Technical

IMT 222(2) Course ID:006422
Industrial Maintenance Motor Controls II
Provides advanced study of motor controls in industry. Addresses open and closed loop control systems, servo motors, encoders, AC and DC motors and industry standard color coding. Pre-requisite: (IMT 110 and IMT 111 and IMT 220 and IMT 221) or consent of instructor. Co-requisite: IMT 223. Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules, Technical

IMT 230(5) Course ID:001594
Industrial Maintenance of PLC's Lab
Addresses the diversity of PLC control devices and applications used in industry today. Safety and electrical lockouts are also included. Pre-requisite: (IMT 110 and IMT 111) or (IMT 130 and 131) with a grade of C or greater] or Consent of Instructor. Co-requisite: IMT 230 or Consent of Instructor. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

IMT 231(2) Course ID:001595
Industrial Maintenance of PLC’s Lab
Addresses the diversity of PLC control devices and applications used in industry today. Safety and electrical lockouts are also included. Pre-requisite: (IMT 110 and IMT 111) or (IMT 130 and IMT 131) with a grade of C or greater] or Consent of Instructor. Co-requisite: IMT 240 or Consent of Instructor. Laboratory: 2 credits (60 contact hours).
Components: Lecture Attributes: Technical

IMT 240(6) Course ID:001596
Industrial Maintenance Motor Control Concepts
Addresses the diversity of control devices and applications used in industry today with safety and electrical lockouts included. The basic theory of programmable logic controllers is also included. Pre-requisite: [(IMT 110 and IMT 111) or (IMT 130 and IMT 131) with a grade of C or greater] or Consent of Instructor. Co-requisite: IMT 241 or Consent of Instructor. Lecture: 6 credits (90 contact hours).
Components: Lecture Attributes: Technical

IMT 250(2) Course ID:001598
Maintaining Industrial Equipment II
Integrates the student's accumulative knowledge from the IMT 150 and IMT 151 courses. Emphasizes troubleshooting techniques and applied machine repair situations that require the student to apply learned skills from all areas of the curriculum. Pre-requisite: (IMT 150 and 151) with a grade of “C” or greater or consent of instructor. Co-requisite: IMT 251 or consent of instructor. Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Technical

IMT 251(3) Course ID:001599
Maintaining Industrial Equipment II Lab
Complements IMT 250 and consists of advanced, specific and assigned machine repair tasks. Pre-requisite: (IMT 150 and 151) with a grade of “C” or greater or consent of instructor. Co-requisite: IMT 250 or consent of instructor. Laboratory: 3.0 credits (90 contact hours), Lab: 3.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

IMT 260(7) Course ID:006546
Presswork and Die Maintenance
Includes the fundamental concepts and machining operations needed by the industrial maintenance technician to be proficient in the field of stamping press and die maintenance. Pre-requisite: IMT 100 and IMT 101 and [(IMT 115 & IMT 116) or (MTT 114) or (MTT 110 & MTT 112)] or consent of instructor. Lecture: 2 credits (30 contact hours), Lab: 5 credits (150 contact hours).
Components: Lecture Attributes: Technical

IMT 280(3) Course ID:001600
Advanced Programmable Logic Controllers Lab
Provides practical applications of the theory in IMT 280 to include installation, programming, interfacing and troubleshooting of industrial PLC's. Pre-requisite: (IMT 220 and IMT 221) with a grade of “C” or greater or Consent of Instructor. Pre-requisite: IMT 280 or Consent of Instructor. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

IMT 281(2) Course ID:001601
Advanced Programmable Logic Controllers Lab
Provides practical applications of the theory in IMT 280 to include installation, programming, interfacing and troubleshooting of industrial PLC's. Pre-requisite: (IMT 220 and IMT 221) with a grade of “C” or greater or Consent of Instructor. Pre-requisite: IMT 280 or Consent of Instructor. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

IMT 282(3) Course ID:017642
PLC Programming Languages
Covers the use of the four main Programmable Logic Controllers (PLC) programming languages specified in the International Electrotechnical Commission (IEC) 61131-3 international standard: Ladder Diagram, Function Block Diagram, Structured Text, and Sequential Function Chart. Discusses a variety of PLC networking protocols such as Ethernet/IP. Pre-requisite: IMT 280 or ETL 250 or ETE 276 and EET 277 or Consent of Instructor. Lecture: 2 credits (30 contact hours), Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

IMT 288(1) Course ID:007373
Industrial Maintenance Technology Capstone
Serves as the capstone course for the Industrial Maintenance Technology degree program. Integrates prior learning outcomes into a single integrated learning experience. Includes preparation for an exit exam that all program graduates must take. Pre-requisite: (BRX 120 or ETL 102) and PXF 101 and MTF 101 and MTF 100 and MTF 110 and MTF 111 and MTF 150 and MTF 151 and MTF 200 and MTF 201) or consent of instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture Attributes: Technical

IMT 290(1 - 3) Course ID:001602
Instructor Consent Required
Special Projects
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
Introduces drill press operations including the selection of feeds and speeds as well as grinding tool bits, the selection of feeds and speeds, dressing grinding wheels. Pre-requisite: IMT 1161 or Consent of Instructor. Co-requisite: IMT 1161 or Consent of Instructor. Laboratory: 0.8 credit (12 contact hours).

Components: Lecture

IMT 1154(0.8) Course ID:006409 Lathe Operations and Procedures

Introduces lathe operations including lathe components, drilling 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, dressing and precision grinding. Pre-requisite: IMT 1161 or Consent of Instructor. Co-requisite: IMT 1165 or Consent of Instructor. Lecture: 0.6 credit (9 contact hours).

Components: Lecture

IMT 1161(0.5) Course ID:006411 General Shop Knowledge Lab

Includes the application of fundamental machining operations necessary for the success of Maintenance Technicians in the field who are required to be proficient in basic machining operations. Pre-requisite: IMT 1151 or Consent of Instructor. Co-requisite: IMT 1164 or Consent of Instructor. Laboratory: 0.5 credit (15 contact hours).

Components: Laboratory

IMT 1162(0.5) Course ID:006412 Vertical and Horizontal Bandsaw Operations Lab

Introduces vertical and horizontal bandsaw operations including the selection of feeds and speeds as well as blade welding. Co-requisite: IMT 1152 or Consent of Instructor. Laboratory: 0.5 credit (15 contact hours).

Components: Laboratory

IMT 1163(0.5) Course ID:006413 Drill Press Operations and Procedures Lab

Introduces drill press operations including the selection of feeds and speeds, layout, drill bit selection and sharpening, and precision drilling operations. Co-requisite: IMT 1153 or Consent of Instructor. Laboratory: 0.5 credit (15 contact hours).

Components: Laboratory

IMT 1164(2) Course ID:006414 Lathe Operations and Procedures Lab

Introduces lathe operations including lathe components, drilling tool bits, the selection of feeds and speeds, turning operations, and threading. Pre-requisite: IMT 1154 or Consent of Instructor. Laboratory: 2 credits (30 contact hours).

Components: Laboratory

IMT 1165(1.5) Course ID:006415 Milling Machine and Surface Grinder Operations and Procedures Lab

Introduces milling and surface grinding operations including vise alignment, dressing and precision grinding. Pre-requisite: IMT 1161 or Consent of Instructor. Co-requisite: IMT 1155 or Consent of Instructor. Laboratory: 1.5 credit (45 contact hours).

Components: Laboratory

IMT 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 (IMT 110 and MTM 112) or Consent of Instructor. Co-requisite: IMT 2201 or Consent of Instructor. Lecture: 1 credit (15 contact hours).

Components: Lecture

IMT 2202(1) Course ID:006417 Motor Starters and Pilot Devices

Addresses the diversity of motor starters, control devices, and circuitry. Introduces the different types and operations of basic control circuits while reinforcing the common symbols used in motor control circuits as well as interpreting and drawing electrical schematics and wiring diagrams. Pre-requisite: IMT 2201 or Consent of Instructor. Co-requisite: IMT 2212. Lecture: 1 credit (15 contact hours).

Components: Lecture

IMT 2203(1) Course ID:006418 Motor Control Circuits

Explores aspects of electrical symbols and specialized motor control circuit. Pre-requisite: IMT 2202 or Consent of Instructor. Co-requisite: IMT 2213. Lecture: 1 credit (15 contact hours).

Components: Lecture

IMT 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 2202. Laboratory: 0.5 credit (15 contact hours).

Components: Laboratory

IMT 2213(1) Course ID:006421 Motor Control Circuits Lab

Explores aspects of electrical symbols and specialized motor control circuits. Pre-requisite: IMT 2212 or Consent of Instructor. Co-requisite: IMT 2203. Laboratory: 1.0 credit (30 contact hours).

Components: Laboratory

IMT 2231(0.5) Course ID:006434 Principles in Process Control and Automation Lab

Provides the lab component for IMT 2221. 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

IMT 2223(0.5) Course ID:006435 Industry Standards for Control Circuit Wiring and Troubleshooting Methods Lab

Provides the lab component for IMT 2223. Covers industry standards related to color coding of industrial wiring control cabinets. Provides for troubleshooting techniques using electrical hand tools and developing and interpreting troubleshooting flow charts to determine phase failure and voltage drops. Pre-requisite: (IMT 110 and IMT 111) or Consent of Instructor. Co-requisite: IMT 2222. Laboratory: 0.5 credits (15 contact hours).

Components: Laboratory

IMT 2233(1) Course ID:006436 Industry Standards for Installing Motors/Electronic Variable Speed Drives II

Provides the lab component for IMT 2223. Covers how to properly evaluate maintenance procedures used for installation of AC and DC motors, proper start up and shut down of electrical systems and fault recovery. Pre-requisite: (IMT 110 and IMT 111) or Consent of Instructor. Co-requisite: IMT 2223. Laboratory: 1 credit (30 contact hours).

Components: Laboratory

IMT 2601(0.5) Course ID:006547 Stamping Press Basics

Addresses press and production safety, various types of presses, and press operations. Pre-requisite: (IMT 116 & IMT 116) or (MTT 110 & MTT 112) or Consent of Instructor. Lecture: 0.5. (Contact Hours 7.5).

Components: Lecture

IMT 2602(0.5) Course ID:006548 Stamping Die Basics

Addresses the basics of stamping dies including the production of dies, die safety, rigging and setup of dies, die bolting and clamping, and OSHA die identification. 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

IMT 2603(1.3) Course ID:006550 Stamping Die Processes

Addresses various stamping die processes such as bending, forming, drawing, squeezing, and coining. Pre-requisite: IMT 2602 or Consent of Instructor. Lecture: 1.3 (Contact Hours 36).

Components: Lecture
IMT 2604(0.6) Course ID:006549
Metallurgy of Die Components
Addresses the characteristics of various tool and die steels, the properties of low carbon steels and cast iron, and die surface coatings and treatments. Pre-requisite: IMT 2603 or Consent of Instructor. Lecture: 0.1 credits(1.5 Contact Hours), Lab: 0.5 credits (15 contact hours).
Components: Lecture

IMT 2605(1.2) Course ID:006551
Anatomy of Stamping Dies
Addresses pads and strippers, spring selection, and the characteristics of nitrogen die pressure systems. Pre-requisite: IMT 2605 or Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

IMT 2606(1.3) Course ID:006552
Repair Decisions
Addresses the process for die repair decisions, basic considerations needed when repairing dies, and the control of bend by adjusting pad pressure. Pre-requisite: IMT 2605 or Consent of Instructor. Lecture: 1.3 (Contact Hours 34.5).
Components: Lecture

Same As Offering: IMT 2606

IMT 2607(1.6) Course ID:006553
Die Repair
Addresses the repair of dies including good grinding practice, repairing worn edges, performing shimming of die components, repairing forming ribs and embossments, performing electrical and welding repairs, performing hand finishing, and explaining the repair of nitrogen pressure systems. Pre-requisite: IMT 2606 or Consent of Instructor. Lecture: 0.1 credits (1.2 contact hours), Lab: 1.5 credits (45 contact hours).
Components: Lecture

IMT 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 IMT221with a grade of “C” or greater) or (equivalent) or Consent of Instructor). Co-requisite: IMT 2811 or Instructor Consent. Lecture: 0.75 credit. (11.25 contact hours).
Components: Lecture

IMT 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 Instructor Consent. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

IMT 2803(0.75) Course ID:006426
Number Systems and Data Manipulation in PLCs
Includes different numbering systems, their transfer from one location to another, comparing, manipulation and common math instructions used in PLC. Co-requisite: IMT 2813 or Instructor Consent. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

IMT 2804(0.75) Course ID:006427
Advanced Instructions and Troubleshooting PLCs
Provides an understanding of control instructions, sequences, shift registers, troubleshooting, and forcing inputs and outputs. Co-requisite: IMT 2814 or Instructor Consent. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

IMT 2811(0.5) Course ID:006428
Introduction to Programmable Logic Controllers Lab
Provides hands-on experience in programming and addressing basic instructions, internal relays, and latching relays. Includes changing modes of operation. Pre-requisite: ((IMT 220 and IMT221with a grade of C or greater) or (equivalent) or Consent of Instructor). Co-requisite: IMT 2801 or Instructor Consent. Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

IMT 2812(0.5) Course ID:006429
Programming Instructions in PLCs Lab
Provides practical experience in programming Programmable Logic Controller Timers and Counters. Co-requisite: IMT 2802 or Instructor Consent. Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

IMT 2813(0.5) Course ID:006430
Number Systems and Data Manipulation in PLCs Lab
Converts different systems, performs data manipulation, transfer, and comparison on the numbers as well as program math instructions. Co-requisite: IMT 2803 or Instructor Consent. Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

IMT 2814(0.5) Course ID:006431
Advanced Instructions and Troubleshooting PLCs Lab
Covers program control instructions, sequencers, and shift registers. Includes troubleshooting PLC issues and using the forcing command. Co-requisite: IMT 2804 or Instructor Consent. Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

INF 120(3) Course ID:007282
Elementary Programming
An elementary introduction to programming for those with no previous programming experience. Emphasis on understanding how to read and write basic procedural programs, and on understanding the concepts of algorithm and execution. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

Attributes: SN - Science, University Course (Northern Kentucky University)

INF 128(3) Course ID:007283
Object Oriented Programming I
Elementary introduction to object oriented programming and design and performance measures. Describes the function of object oriented program and emphasizes object-oriented design. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

Attributes: Technical

INF 129(3) Course ID:007284
Object Oriented Programming II
Object oriented programming and design and performance measures. Describes the function of object oriented program and emphasizes object-oriented design. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

Attributes: Technical

INF 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, English, and Mathematics assessment scores above the KCTCS developmental placement level or successful completion of the prescribed developmental course(s). Lecture: 3.0 credits (45 contact hours).
Components: Lecture

Attributes: Technical

INS 100(3) Course ID:006586
Introduction to Insurance and Risk Management
Introduces property-casualty insurance and is a foundation for the study of insurance. Provides information on types of insurance, providers, regulatory environment, and performance measures. Describes the function of marketing, underwriting and claims. Covers insurance as a contract, introduces both property and liability loss exposure and policy provisions, and provides a basic discussion of risk management as a means of managing loss exposures. Pre-requisite: Reading, English, and Mathematics assessment scores above the KCTCS developmental placement level or successful completion of the prescribed developmental course(s). Lecture: 3.0 credits (45 contact hours).
Components: Lecture

Attributes: Technical

INS 182(3) Course ID:006588
Multiple Lines Insurance Production
Introduces principles of multiple lines insurance production. Emphasizes insurance product and insurance markets in the context of commercial lines coverages. Pre-requisite: INS 181. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

Attributes: Technical

IRW 085(4) Course ID:015875
Integrated Reading and Writing I
Emphasizes proficiency in reading comprehension, vocabulary, and critical thinking skills to prepare students for college reading through individualized and/or group instruction and practice. Applies writing as a process with emphasis on paragraph-length assignments, basic conventions of standard English as these apply to students' own work, writing in response to reading, and the use of technology to produce and share writing. Pre-requisite: Placement by KCTCS Assessment and Placement Policy. Lecture: 4.0 credits (60 contact hours).
Components: Lecture

Attributes: Developmental/Remedial Learning Skills
IRW 095(4) Course ID:007214
Integrated Reading and Writing
Emphasizes critical reading skills to develop vocabulary techniques, active reading strategies, comprehension accuracy, and interpretation of visual elements in texts. Applies writing as a process with instruction in intermediate writing skills and technology emphasizing organization, idea development through critical thinking, and editorial improvements through multi-paragraph writing. Introduces basic research and documentation through writing in response to reading. Pre-requisite: Placement by KCTCS Assessment and Placement Policy. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Developmental/Remedial Learning Skills

ISM Instrumentation and Process
ISM 102(4) Course ID:003972
Fundamentals of Instrumentation
Introduces concepts of instrumentation devices and laboratory techniques used for monitoring and controlling manufacturing processes. Includes component identification and application, basic conversions, accuracy of measuring devices, tubing use and selection, repair procedures and the theory of operation and calibration of pressure, and process measuring instruments. Covers the need for calibration and the use of various calibration standards. Includes safety precautions, and regulations encountered in the instrumentation field. Lecture: 3 credits (45 contact hours), Lab: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ISM 210(4) Course ID:003976
Fundamentals of Process Control
Provides theoretical and practical experience in the operation of process control systems. Lecture: 3 credits (45 contact hours), Lab: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ISX Industrial Safety
ISX 100(3) Course ID:001622
Industrial Safety
This course provides practical training in industrial safety. The students are taught to observe general safety rules and regulations, to apply work site and shop safety rules, and to apply OSHA regulations. Students are expected to obtain certification in first aid and cardiopulmonary resuscitation. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ISX 101(3) Course ID:000877
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 methods. 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 employer 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 1051(0.67) Course ID:015673
10-hour General Industry
Provides entry level workers with information about their rights and employer responsibilities. Emphasizes hazard identification, avoidance, control and prevention. (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

JAT Journalism - Advertising - Telecommunications
JAT 101(3) Course ID:002222
Introduction to Communication Media
Lectures, readings, and other materials provide an introductory survey of the journalism, advertising, and telecommunications professions. This course will foster an understanding of the historical development, theory, effects, regulation, practice, and professional opportunities of these three industries. Students will gain an awareness of the possibilities and limitations of evolving communication technologies, preparing them to become intelligent consumers, producers, and managers of communication media. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other

JOU Journalism
JOU 101(3) Course ID:000788
Introduction to Journalism
This course surveys the history and social theories of journalism and introduces students to contemporary journalistic practice. Students will learn about the function and operation of print, electronic and on-line 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 204(3) Course ID:000794
Writing for the Mass Media
An introduction to the concepts and techniques of media writing. This course offers hands-on instruction in information gathering, organization, and writing for print, broadcast and on-line media. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (60/30:1 ratio contact hours). Pre-requisite: JOU 101 or Consent of Instructor.
Components: Laboratory, Lecture

JPN Japanese
JPN 101(4) Course ID:003862
Beginning Japanese I
A course in first semester Japanese language. Lecture: 4 credits (60 contact hours)
Components: Lecture
Attributes: Foreign Language, Cultural Studies

JPN 102(4) Course ID:003970
Beginning Japanese II
A course in second semester Japanese language. Pre-requisite: JPN 101 or Equivalent. Lecture: 4 credits (60 contact hours)
Components: Lecture
Attributes: Foreign Language, Cultural Studies

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

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

JUS Criminal Justice
JUS 101(3) Course ID:017113
Introduction to Criminal Justice
This course provides an overview of the criminal justice system; organization and operation of police, courts, and corrections; race, ethnicity, gender, and criminal justice decision-making, current trends and future prospects. Lecture: 3 credit hours (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, University Course (Northern Kentucky University)

JUS 231(3) Course ID:017112
Race, Gender, and Crime
Political formulation of race and gender; race and gender issues related to criminality, victimization, prosecution; adjudication, sanctions, and employment within the legal system; antecedents of contemporary practice; prospects for change. Lecture: 3 credit hours (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, University Course (Northern Kentucky University)
KHP Kinesiology and Health Promotion

KHP 100(1) Course ID:002299
Walking
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours).
Components: Laboratory Attributes: Other

KHP 101(1) Course ID:002300
Weightlifting
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours).
Components: Laboratory Attributes: Other

KHP 104(1) Course ID:002304
Beginning Swimming
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours).
Components: Laboratory Attributes: Other

KHP 106(1) Course ID:002306
Beginning Bowling
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours).
Components: Laboratory Attributes: Other

KHP 107(1) Course ID:002307
Fitness
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours).
Components: Laboratory Attributes: Other

KHP 107(1) Course ID:017465
Military Conditioning Intermediate I
Instruction in a variety of motor skills activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. (Source: https://www.uky.edu/registrar/content/schedule-classes-fall) UK Fall 2019 Schedule of Classes Searching for Classes. May be repeated to a maximum of six credits under different subtitles. Laboratory: 1 credit hour (45 contact hours).
Components: Laboratory Attributes: University Course (University of Kentucky)

KHP 109(1) Course ID:002309
Dancing
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours).
Components: Laboratory Attributes: Other

KHP 115(1) Course ID:002315
Martial Arts
Provides students with beginning instruction and experience in self-defense, basic exercise, and disciplines associated with martial arts. Lab: 1 credit (30 contact hours).
Components: Laboratory Attributes: Other

KHP 116(1) Course ID:002316
Intermediate Martial Arts
Provides students with intermediate instruction and experience in basic exercise and disciplines associated with martial arts. Pre-requisite: KHP 115. Lab: 1 credit (30 contact hours).
Components: Laboratory Attributes: Other

KHP 121(1) Course ID:002321
Aerobics
Includes beginning conditioning activities and/or vigorous nonstop rhythmic movement patterns designed to improve or maintain cardiovascular endurance for students at all levels of fitness. Lab: 1 credit (30 contact hours).
Components: Laboratory Attributes: Other

KHP 122(1) Course ID:002322
Low-Impact Aerobics
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours).
Components: Laboratory Attributes: Other

KHP 123(1) Course ID:002323
Basketball
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Laboratory: 1 credit (15 contact hours).
Components: Laboratory Attributes: Other

KHP 124(1) Course ID:002324
Conditioning
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours).
Components: Laboratory Attributes: Other

KHP 129(1) Course ID:002329
Beginning Weight Training
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours).
Components: Laboratory Attributes: Other

KHP 130(1) Course ID:002330
Water Aerobics
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours).
Components: Laboratory Attributes: Other

KHP 132(1) Course ID:002332
Nautilus
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours).
Components: Laboratory Attributes: Other

KHP 134(1) Course ID:002334
Cross-training
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab 1 credit (15 contact hours).
Components: Laboratory Attributes: Other

KHP 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 skill activities. Courses are designed for students who already possess intermediate skills in the activity. Instructors will assess skill at start of course. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Assignment of specific title will occur internally in the department. Laboratory: 3 hours. Pre-requisite: Completion of comparable service course or demonstrated competency.
Components: Laboratory Attributes: Other

KHP 136(1) Course ID:017466
Military Conditioning Intermediate II
Instruction in a variety of motor skills activities. The courses are designed for students who already possess intermediate skill 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 titles will occur internally in the department. Three lab hours per week. (Source: https://www.uky.edu/registrar/content/schedule-classes-fall) UK Fall 2019 Schedule of Classes Searching for Classes. Pre-requisites: Completion of comparable service course or demonstrated competency. May be repeated to a maximum of six credits under different subtitles. Laboratory: 1 credit hour (45 contact hours).
Components: Laboratory Attributes: University Course (University of Kentucky)

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. Laboratory: 1 credit (15 contact hours).
Components: Laboratory Attributes: Technical

KHP 140(1) Course ID:002341
Advanced Weight Training
Instruction in a variety of motor skill activities. Courses are designed for students who already possess intermediate skills in the activity. Instructors will assess skill at start of course. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Assignment of specific title will occur internally in the department. 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 designed for students who already possess intermediate skills in the activity. Instructors will assess skill at start of course. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Assignment of specific title will occur internally in the department. 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
Instructor 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 disease, and basic concepts of nutrition and weight management. Emphasis will be on the promotion of health lifestyles. Lecture: 3 credits (45 contact hours)

Components: Lecture
Attributes: Other

KHP 146(1) Course ID:016371

Intermediate Yoga
Provides students with intermediate instruction and activities associated with yoga. Laboratory: 1 credit (30 contact hours).

Components: Laboratory
Attributes: Other

KHP 149(1) Course ID:016372

Advanced Yoga
Provides students with advanced instruction and activities associated with yoga. Laboratory: 1 credit (30 contact hours). Pre-requisite or Co-requisite: KHP 146.

Components: Laboratory
Attributes: Other

KHP 150(3) Course ID:006816

Personal Health Behavior
Prepares students to make informed choices about health issues and behaviors and to take responsibility for their health and well-being. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

KHP 160(3) Course ID:006817

Personal Nutrition and Fitness
Introduces the importance of daily diet and nutrition. Addresses the role of the personal trainer in helping clients to recognize and decrease risks for chronic diseases. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

KHP 190(2) Course ID:000029

First Aid and Emergency Care
A study of first aid subject matter and orientation in the various first aid teaching methods. Lectures and demonstrations on first aid measures with skill training. American Red Cross Certificate made available. Lecture: 1.0 credit hour; Laboratory: 2.0 credit hours.

Components: Laboratory, Lecture
Attributes: Other

KHP 225(3) Course ID:006818

Exercise Techniques and Physical Training
Focuses on the core components of personal training. Provides information and resources necessary to pass personal fitness trainer certification. Pre-requisite: BIO 135 or MSG 100 (or consent of instructor). Co-requisite: KHP 235. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Other

KHP 230(3) Course ID:000379

Human Health and Wellness
The study of health promotion, wellness, and disease prevention concepts as applied to individual, familial, and community health. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Other

KHP 235(2) Course ID:006820

Personal Trainer Practicum
Students will apply personal training principles and techniques and demonstrate skills with clients in various settings under instructor and preceptor supervision. Pre-requisite: BIO 135 or MSG 100. Co-requisite: KHP 225. Practicum: 2.0 credits (60 contact hours).

Components: Practicum
Attributes: Other

KHP 240(3) Course ID:002226

Nutrition and Physical Fitness
Focuses on the inter-relationship between nutrition and physical fitness. Provides the student with the information necessary to formulate an individualized plan for achievement and maintenance of adequate nutrition and physical fitness while addressing weight control. Lecture: 3 credits (45 contact hours).

Components: Laboratory, Lecture
Attributes: Other

KMA Kentucky Medication Aide
KMA 100(5) Course ID:001629

Kentucky Medication Aide
Prepares a Kentucky Medicaid Nurse Aide to administer specific medications in a long term care facility as delegated and supervised by a licensed nurse. Pre-requisite: [(MNA 100 or NAA 100 or NAA 125) and six months of work experience as a Kentucky Medicaid Nurse Aide] or Consent. Lecture/Lab: 5.0 credits (105 contact hours).

Components: Lecture
Attributes: Technical

LAS Latin America
LAS 201(3) Course ID:015525

Introduction to Latin America
An interdisciplinary approach to the people, culture, and development of the Latin American republics. Attention will be concentrated on significant aspects of the indigenous peoples, geography, economic processes, gender roles, social structures and politics of Latin America, with special attention paid to value structures and value conflicts. Musical, literary and artistic expression in Latin America will also be introduced. Lecture: 3.0 credits (45 contact hours)

Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities, University Course (University of Kentucky)

LIN Linguistics
LIN 175(3) Course ID:015987

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 Library Information Technology
LIT 115(3) Course ID:004801

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) Course ID:007416

Readers' Advisory Services
Examines library readers' advisory services. Includes readers' advisory resources, library programming, book discussion groups, collection development, formats for books, ebooks and audio books, online applications, and marketing. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

LIT 124(3) Course ID:004802

Library Administration
Introduces basic principles of library organization and management. Includes the planning process, policies, ethical and legal issues, budgeting, and human resources. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

LIT 132(3) Course ID:004803

Library Technical Services
Provides an overview of library technical services, including acquisitions, processing, cataloging and classification. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

LIT 200(3) Course ID:005218

Seminar in Kentucky Literature
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

LIT 240(3) Course ID:004805

Literature of Appalachian Kentucky
Introduces the Appalachian literature of Kentucky concentrating on the major contemporary and traditional writers who are distinctly identified with that region. Approaches may include a group of authors, an historical period or aesthetic movement, a genre, a theme, or an aspect of literary theory. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

LIT 242(3) Course ID:004806

Literature of Western Kentucky
Introduces the literature of Western Kentucky concentrating on the major contemporary and traditional writers who are distinctly identified with that region. Approaches may include a group of authors, an historical period or aesthetic movement, a genre, a theme, or an aspect of literary theory. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

LIT 243(3) Course ID:004807

Library Services for Children
Introduces library services for children grades K - 6 and their caregivers. Includes surveys of child development, library programming, children's literature, collection development, and legal issues. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

LIT 245(3) Course ID:005083

Library Services for Young Adults
Introduces library services for young adults from 6th to 12th grades. Includes programming, collection development, young adult literature, the use of the Internet, and ethical and legal issues. Emphasizes the development and promotion of young adult library services. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

LIT 247(3) Course ID:004808

Library Services for Adults
Introduces library services for adults. Includes adult literature, collection development, programming, circulation services, reference services, and customer relations. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical
Library Services for Preschool Children
Introduces library services for preschool children, age infant to 5 years. Includes library program planning, 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

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

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

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

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

Transportation Management
Presents an overview of the role of transportation and pricing issues; transportation modes and terminals; and transportation management and global management issues. Pre-requisite: LOM 100. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

Supply Chain Management
Presents an overview of supply chain management and financial analysis; inventory management skills and techniques; and supply chain design and sustainability solutions. Pre-requisite: LOM 100. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

Project Management
Introduces practical approach to managing essential resources, people, and deadlines, and real-world challenges required to bring any project in on time, on target, and on budget. Covers skills and concepts of essential project management processes, defining requirements, schedules, risk management assessment, change control, and project management software applications. Provides students with a practical approach to developing projects with opportunities to apply skills and elements by completing activities based upon real-time projects and case studies. Pre-requisite: Digital literacy or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Same As Ofering: LOM 150
Attributes: Technical

Project Management
Introduces practical approach to managing essential resources, people, and deadlines, and real-world challenges required to bring any project in on time, on target, and on budget. Covers skills and concepts of essential project management processes, defining requirements, schedules, risk management assessment, change control, and project management software applications. Provides students with a practical approach to developing projects with opportunities to apply skills and elements by completing activities based upon real-time projects and case studies. Pre-requisite: Digital literacy or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Same As Ofering: LOM 150
Attributes: Technical

Applied Supply Chain Management
Provides an understanding of the importance of individual components (supplies, manufacturers, distributors, and customers) in the operation of a supply chain. Pre-requisite: LOM 102. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Same As Ofering: LOM 202
Attributes: Technical

Applied Supply Chain Management
Provides an understanding of the importance of individual components (supplies, manufacturers, distributors, and customers) in the operation of a supply chain. Pre-requisite: LOM 102. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Same As Ofering: LOM 202
Attributes: Technical

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 flow, value stream management and global management techniques. Pre-requisite or Co-requisite: LOM100 Introduction to Logistics Management. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

Contemporary Mathematics
An introduction to concepts and applications of mathematics, with examples drawn from such areas as voting methods, apportionment, consumer finance, graph theory, tilings, polyhedra, number theory and game theory. This course is not available for credit to persons who have received credit in any mathematics course of a higher number with the exceptions of MA 112, 123, 162, 201 and 202. This course does not serve as a Pre-requisite for any calculus course. Credit not available on that basis of special examination. Pre-requisite: Two years of high school algebra and a Math ACT score of 19 or above, or MA 108, or math placement test. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

Mathematics for Elementary Teachers
Sets, numbers and operations, problem solving and number theory. Recommended only for majors in elementary and middle school education. Pre-requisites: MA 109 (UK) or MA 111 (UK). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

Mathematics for Elementary Teachers
Algebraic reasoning, introduction to statistics and probability, geometry, and measurement. Pre-requisites: A grade of "C" or better in MA 201 (UK). Also recommended: a course in logic (e.g. PHI 120) or a course in calculus (e.g. MA 123 (UK)). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)
MAI 120(3) Course ID:004090
Medical Assisting Laboratory Techniques I
Introduces theory and practical application in the physician’s office laboratory including anatomy and physiology, patient preparation, specimen collection and transport, processing and testing, blood collection and prevention of disease transmission. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (30 contact hours). Pre-requisite: Acceptance into the Medical Assisting Program or consent of Medical Assisting Coordinator/Director.
Components: Laboratory, Lecture
Attributes: Technical

MAI 124(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 coworkers, completion of medical office forms, telephone techniques, filing office correspondence, appointment scheduling, processing medical records, and an introduction to medical office computer software. Pre-requisite: Acceptance into the Medical Assisting Program or Consent of Medical Assisting Coordinator/Director. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MAI 170(2) Course ID:004093
Department Consent Required
Dosage Calculations
Provides a review of basic mathematics skills related to dosage calculations, a thorough knowledge of the systems of measurement and conversion, and application skills to perform dosage calculations. Pre-requisite: Acceptance into the Medical Assisting Program or Consent of Medical Assisting Coordinator/Director. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical

MAI 200(3) Course ID:004094
Pathophysiology for the Medical Assistant
Provides instruction related to common acquired diseases, congenital conditions, injuries, illnesses, and trauma situations related to the major body systems. Pre-requisite: (BIO 135 or BIO 137 and BIO 139) and (CLA 131 or AHS 115 or AHS 120 or MIT 103) or Consent of Medical Assisting Coordinator/Director. All Pre-requisites must be achieved with a grade of "C" or greater. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MAI 220(3) Course ID:004095
Medical Assisting Laboratory Techniques II
Relates to laboratory procedures waived complexity testing performed in the physician’s office laboratory. Stresses CLIA and OSHA regulations. Pre-requisite: MAI 120 with a grade of "C" or greater or Consent of Medical Assisting Coordinator/Director. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

MAI 230(3) Course ID:004096
Department Consent Required
Medical Insurance
Introduces fundamentals of insurance processing and coding for the medical office, with focus on proper procedures for accurate coding systems using the ICD, CPT and HCPCS coding system. Pre-requisite: Acceptance into the Medical Assisting Program or Consent of Medical Assisting Coordinator/Director. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MAI 240(4) Course ID:004097
Medical Assisting Clinical Procedures II
Continues instruction and application techniques for specialty patient examinations, diagnostic testing and treatment modalities. Emphasizes fundamentals and practical applications of minor office surgical procedures. Pre-requisite: MAI 140 with a grade of "C" or greater OR Consent of Program Coordinator. Lecture: 2 credits (45 contact hours); Lab: 1 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

MAI 250(3) Course ID:004098
Medical Assisting Administrative Procedures II
Focuses on compiling and completing financial and insurance claim forms. Includes banking concepts, accounting systems frequently used in the medical office, payment procedures, insurance plans and claims, paper and electronic billing methods, and professional fees. Pre-requisite: MAI 150 with a grade of "C" or greater OR Consent of Program Coordinator. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

MAT 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) or a grade of "C" or better) or Consent of Medical Assisting Program Coordinator/Director. Lecture: 2.0 credits (30 contact hours); Lab: 1.0 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

MAT 281(1) Course ID:004101
Medical Assisting Practicum
Provides introductory practical experience (unpaid) through observation and work assignments in a health care setting. Clinical: 1 credit (60 contact hours). Pre-requisite: Consent of Medical Assisting Program Coordinator/Director.
Components: Clinical
Attributes: Technical

MAT 284(2 - 3) Course ID:015672
Medical Assisting Externship
Allows the student to apply knowledge, perform administrative and clinical procedures, and develop professional attitudes for interacting with other professionals and consumers in the health care field by means of externship assignments (unpaid). Pre-requisite: MAI 281 and Consent of Medical Assisting Program Coordinator/Director. Practicum: 2.0 - 3.0 credits (120-180 contact hours).
Components: Practicum
Attributes: Technical

MAT 289(1 - 2) Course ID:016764
Medical Assisting Assessment Preparation
Prepares student to assume the role of the Medical Assistant by preparing them for successful credentialing while providing the opportunity to apply critical thinking, cognitive skills and performance competencies. Pre-requisite: Consent of Program Coordinator. Laboratory: 1.0-2.0 credit hours (30-60 contact hours).
Components: Laboratory
Attributes: Technical

MAT 289(1 - 4) Course ID:004341
Instructor Consent Required
Selected Topics: Medical Assisting: (Topic)
Various medical assisting topics, issues and trends will be addressed. Topics may vary from semester to semester at the discretion of the instructors; course may be repeated with different topics to a maximum of six credit hours. Lecture: varies; Laboratory: varies. Pre-requisite: Consent of instructor.
Components: Laboratory, Lecture
Attributes: Technical

MAT 011(3) Course ID:015623
Transitional Algebra
Provides individualized, accelerated, mastery-level progression through entry-level college mathematics Pre-requisite competencies as defined by KY Council of Postsecondary Education. Note: A passing grade in this course does not necessarily indicate that all prerequisites for all entry-level college mathematics courses have been met. Pre-requisite: KCTCS Placement Exam. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics
MAT 050(1 - 2) Course ID:004565
Developmental Mathematics Workshop
Provides supplemental academic support such as extra class sessions, tutoring, and/or increased monitoring to promote student success. May be associated with any developmental math course offered through KCTCS and may be repeated for each math course. Credit cannot be received by special exam. Co-requisite: Set by instructor. Laboratory: 1-2 credits (30-60 contact hours).

Components: Laboratory
Attributes: Remedial - Mathematics

MAT 055(3) Course ID:004555
Pre-Algebra
Includes operations on integers, decimals and fractions. Introduces exponents, square roots, percents, ratios, proportions, prime factorization, basic geometry, algebraic expressions, basic linear equations, and applications. Pre-requisite: KCTCS Placement Examination. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Remedial - Mathematics, Course Also Offered in Modules

MAT 055A(1.6) Course ID:007338
Integers, Fractions and Decimals
Covers the properties of real numbers, prime factorization of whole numbers, rounding of whole numbers, and decimals to an indicated place value. Includes basic operations, order of operations, and absolute value on integers, fractions, and decimals. Permits the conversion among fractions, decimals, and percents; evaluation of whole number powers of integers, fractions, and decimals; and the evaluation of square roots of perfect squares of integers, fractions, and decimals. Pre-requisite: KCTCS Placement Examination. Lecture: 1.6 credits (24 contact hours).

Components: Lecture
Attributes: Remedial - Mathematics

MAT 055B(0.7) Course ID:007339
Algebraic Expressions
Includes the evaluation of algebraic expressions, simplifying algebraic expressions, solving problems involving ratio and proportion, and solving problems involving percent. Pre-requisite: MAT 055A. Lecture: 0.7 credits (10.5 contact hours).

Components: Lecture
Attributes: Remedial - Mathematics

MAT 055C(0.7) Course ID:007340
Beginning Linear Equations
Uses both the addition and multiplication properties to solve a linear equation. Includes how to determine the length of the unknown side of a right triangle using the Pythagorean Theorem and to determine the perimeter, circumference, area, surface area, and volume of basic plane figures and solids. Covers how to solve applied problems using these competencies with real world applications. Pre-requisite: MAT 055B. Lecture: 0.7 credits (10.5 contact hours).

Components: Lecture
Attributes: Remedial - Mathematics

MAT 055D(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 notation and translating verbal statements into algebraic expressions. Pre-requisite: MAT 055 or KCTCS Placement Examination. Lecture: 0.8 credits (12 contact hours).

Components: Lecture
Attributes: Remedial - Mathematics, Course Also Offered in Modules

MAT 065A(0.8) Course ID:007342
Polynomials
Includes the application of rules of integer exponents; addition, subtraction, and multiplication of polynomials of one or more variables; division of polynomials of one variable. Pre-requisite: MAT 055A. Lecture: 0.5 credits (7.5 contact hours).

Components: Lecture
Attributes: Remedial - Mathematics

MAT 065B(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 065C(0.8) Course ID:007344
Factoring
Includes the factoring of polynomials by finding the greatest common factor, by grouping, and by using special products. Covers factoring general trinomials and solving polynomial equations by factoring. Pre-requisite: MAT 065C. Lecture: 0.5 credits (7.5 contact hours).

Components: Laboratory
Attributes: Remedial - Mathematics

MAT 065D(0.8) 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 065E(0.8) Course ID:007346
Foundations of Precalculus
Includes linear and absolute value equations and inequalities, linear equations in two variables, polynomials and factoring, exponential and radical expressions, quadratic equations, and systems of two linear equations. Pre-requisite: KCTCS Placement Examination. Lecture: 3 credit hours (45 contact hours).

Components: Lecture
Attributes: Remedial - Mathematics

MAT 071(3) Course ID:017181
Applied Algebra
Includes linear and absolute value equations and inequalities, linear equations in two variables, polynomials and factoring, exponential and radical expressions, quadratic equations, and systems of two linear equations. Pre-requisite: KCTCS Placement Examination. Lecture: 3 credit hours (45 contact hours).

Components: Lecture
Attributes: Remedial - Mathematics

MAT 075(4) Course ID:015659
Mathematical Literacy
Develops the mathematical thinking skills and understanding needed for non-math and non-science majors, in a one-semester course integrating numeracy, proportional reasoning, algebraic reasoning, and functions. Provides an alternate path to college-level math courses other than college algebra. Pre-requisite: MAT 055 or equivalent as determined by KCTCS placement examination. Lecture: 4.0 credits (60 contact hours).

Components: Lecture
Attributes: Remedial - Mathematics

MAT 085(3) Course ID:007045
Intermediate Algebra
Includes rational expressions, radical expressions, rational exponents, graphing parabolas, inequalities, equations of lines, functions and applications, with emphasis on solving quadratic, rational, and radical equations. Pre-requisite: MAT 065 or MAT 075 or KCTCS Placement Examination. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Remedial - Mathematics

MAT 095(1 - 2) Course ID:015815
Supplemental Mathematics
Provides 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 before withdrawal from MAT 150, can be offered pass/fail or letter grade basis.) Lecture: 2.0 credits (30 contact hours). Pre-requisite: Concurrent enrollment in MAT 150. NOTE: Effective Fall 2010 ACT 19.

Components: Lecture
Attributes: Other, Course Also Offered in Modules, Supplemental Mathematics

MAT 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 before withdrawal from MAT 150, can be offered pass/fail or letter grade basis.) Lecture: 2.0 credits (30 contact hours). Pre-requisite: Concurrent enrollment in MAT 150. NOTE: Effective Fall 2010 ACT 19.

Components: Lecture
Attributes: Other, Course Also Offered in Modules, Supplemental Mathematics

MAT 105(3) Course ID:004557
Business Mathematics
Covers basic mathematical concepts as applied to finance. Includes percentages, simple and compound interest, annuities, sinking funds, depreciation, and consumer debt, including installment buying, credit cards, and mortgages. Pre-requisite: 1. MAT 061, MAT 062, MAT 065, MAT 071, MAT 075, or MAT 085, or 2. Completion of MAT 055 and concurrent enrollment in MAT 105S, OR 3. KCTCS placement policy. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Quantitative Reasoning AAS

MAT 105S(1 - 2) Course ID:017289
Corequisite Remediation for Business Mathematics

Components: Lecture
Attributes: Other

MAT 110(3) Course ID:004558
Applied Mathematics
Includes the concepts of ratio and proportion, units and conversions, linear equations in two variables, inequalities, graphing and writing equation of a line, percents, interest, description of statistics, and logical symbolism. Emphasizes applications in the various technologies. Pre-requisite: 1. MAT 061, MAT 062, MAT 065, MAT 071, MAT 075, or MAT 085, OR 2. Completion of MAT 055 and concurrent enrollment in MAT 110S, OR 3. KCTCS placement policy. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Quantitative Reasoning AAS, Course Also Offered in Modules
MAT 1105(1 - 2) Course ID:017291
Corequisite Remediation for Applied Mathematics
Components: Lecture
Attributes: Other

MAT 116(3) Course ID:004559
Technical Mathematics
Includes some mathematical concepts from algebra, geometry, and trigonometry and applications relevant to these topics. Includes unit conversions, variation, measurement of geometric figures, vectors, and solving right and oblique triangles using trigonometry. Emphasizes applications in the various technologies. Pre-requisite: 1. MAT 061, MAT 062, MAT 065, MAT 071, MAT 075, or MAT 085, OR 2. Completion of MAT 055 and concurrent enrollment in MAT 116S, OR 3. KCTCS placement policy. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Quantitative Reasoning AAS, Course Also Offered in Modules

MAT 116S(1 - 2) Course ID:017293
Corequisite Remediation for Technical Mathematics
Components: Lecture
Attributes: Other

MAT 126(3) Course ID:004562
Technical Algebra and Trigonometry
Examines mathematical concepts from algebra and trigonometry. Includes vectors, phasor algebra, variation, trigonometric functions, coordinate systems, system of linear equations, quadratic, rational, exponential and logarithmic equations. Pre-requisite: 1. MAT 061, MAT 065, MAT 071, MAT 075, or MAT 085, OR Completion of MAT 055 and concurrent enrollment in MAT 126S, OR KCTCS placement policy. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Quantitative Reasoning AAS

MAT 126S(1 - 2) Course ID:017294
Corequisite Remediation for Technical Algebra and Trigonometry
Components: Lecture
Attributes: Other

MAT 141(3) Course ID:017208
Liberal Arts Mathematics
Serves as a course in quantitative reasoning and problem solving intended for liberal arts majors. Includes voting methods, apportionment, interest and investments, probability, statistics, and geometry. (Students may not receive credit for both this course and MAT 146.) Pre-requisite or Co-requisite: College Readiness or concurrent enrollment in MAT 141S or MAT 061 or MAT 065 or MAT 071 or MAT 075. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning

MAT 141S(1) Course ID:017209
Corequisite Remediation for Liberal Arts Mathematics
Provides supplementary instruction for students who do not meet college readiness standards for MAT 141. Covers content necessary for success in MAT 141. Co-requisite: MAT 141. Lecture: 1 credit hour (15 contact hours).
Components: Lecture
Attributes: Other

MAT 146(2) Course ID:002375
Contemporary College Mathematics
Serves as a course in quantitative reasoning and problem solving intended for non-science majors. Includes voting methods, finance, population growth, and at least two additional topics chosen from: apportionment, geometry, logic, probability and statistics, graph theory, number theory, game theory, and set theory. Pre-requisite: 1. Math ACT score of 19 or above. OR 2. Successful completion of MAT 061, MAT 065, MAT 071, MAT 075, MAT 085, MAT 126, or equivalent, OR 3. KCTCS placement policy including concurrent enrollment in MAT 146S as appropriate. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, Course Also Offered in Modules

MAT 146S(1 - 2) Course ID:017295
Corequisite Remediation for Contemporary College Mathematics
Provides supplementary instruction for students who do not meet college readiness standards for MAT 146. Covers content necessary for success in MAT 146. Co-requisite: MAT 146. Lecture: 1-2 credit hours (15-30 contact hours).
Components: Lecture
Attributes: Other

MAT 150(3) Course ID:002276
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 Pre-calculus course. Credit not available on the basis of special exam.) Pre-requisite: 1. Math ACT score of 22 or above; 2. Math ACT score of 19-21 with concurrent MAT 100 workshop; 3. Successful completion of MAT 061, MAT 065, or MAT 075 with concurrent MAT 100 workshop; 4. Successful completion of MAT 071, MAT 085, MAT 126, or equivalent; or 5. KCTCS placement exam recommendation. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, Course Also Offered in Modules

MAT 151(3) Course ID:017087
Introduction to Applied Statistics
Serves as an entry-level introduction to applied statistics useful for a variety of fields. Covers statistical terminology and the appropriate use of software for the calculation of descriptive statistics, basic probability, correlation and linear regression. Emphasizes understanding the uses and misuses of statistics in the real world. (Same as STA 151.) (Students may not receive credit for both this course and any of the following: STA 151, STA 200, STA 210, STA 215.) Pre-requisite: College Readiness in Mathematics. Lecture: 3 credit hours (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning

MAT 151S(1) Course ID:017074
Corequisite Remediation for Introduction to Applied Statistics
Provides supplementary instruction for students who do not meet college readiness standards for STA 151 or MAT 151. Covers content necessary for success in STA 151 or MAT 151 as needed. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Other, Supplemental Mathematics

MAT 154(2) Course ID:000552
Trigonometry
Includes trigonometric functions, identities, multiple analytic formulas, laws of sines and cosines, graphs of trigonometric functions, and inverse trigonometric functions. Pre-requisite: Completion of MAT 071 or MAT 150 or a college intermediate algebra course or two years of high school algebra. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Course Equivalents: MAT 155
Attributes: QR - Quantitative Reasoning

MAT 155(3) Course ID:004563
Trigonometry
Includes the trigonometric functions, identities, multiple analytic formulas, laws of sines and cosines, graphs of trigonometric functions in rectangular and polar coordinates, and solving trigonometric equations. Emphasizes applications in each topic. (Students may not receive credit for both MAT155 and any other trigonometry or pre-calculus course.) Lecture: 3 credits (45 contact hours).
Pre-requisite: 1. Math ACT score of 22 or above; 2. Math ACT score of 19-21 with concurrent MAT 150. 3. Successful completion of Intermediate Algebra, MAT 071, MAT 126, MAT 150, or equivalent; or 4. Placement exam recommendation.
Components: Lecture
Course Equivalents: MAT 154
Attributes: QR - Quantitative Reasoning

MAT 159(4) Course ID:000543
Analytic Geometry and Trigonometry
Includes trigonometric functions, trigonometric identities, graphs of trigonometric functions, and inverse trigonometric functions, polynomial and rational functions, the Algebra of functions, exponential and logarithmic functions, and systems of equations. The course is not available for credit by special examination. The course is not available for credit to persons who have received credit for college algebra or trigonometry course. Pre-requisite: Two years of high school algebra and a Math ACT score of 19 or above, or MAT 108R (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 161(5) Course ID:017175
Statistics and Algebra
Serves as the entry-level mathematics class for students in business and related fields. Provides a survey of algebra and statistics topics necessary to prepare students for Brief Calculus and Applied Statistics. Develops fluency in the manipulation of polynomial, rational, radical, exponential, and logarithmic functions in order to solve equations, inequalities, and application problems. Familiarizes students with the graphs of the aforementioned functions. Includes nonlinear systems of equations. Covers statistical terminology and the appropriate use of software for the calculation of descriptive statistics, basic probability, correlation and linear regression. (Students may not receive credit for both this course and any of the following: STA 151, MAT 151, MAT 152.) Pre-requisite: 1. ACT Math of 22 or MAT 071 or MAT 085 or 2. KCTCS placement policy and concurrent enrollment in MAT 161-S or 3. completion of MAT 061 and concurrent enrollment in MAT 161-S.
Components: Lecture
Attributes: QR - Quantitative Reasoning

MAT 161S(2) Course ID:017174
Corequisite Remediation for Statistics and Algebra
Provides supplementary instruction for students who do not meet college readiness standards for MAT 161. Covers content necessary for success in MAT 161 as needed. Co-requisite: MAT 161. Lecture: 2 credit hours (30 contact hours).
Components: Lecture
Attributes: Other
ME 1702(0.8) Course ID:0016158
Differentiation
Define the derivative of a function; evaluate the derivative of a function using the definition; evaluate the derivative of a function using differential rules for algebraic functions and the product, quotient, and chain rules; use the derivative of a function to find the equation of a tangent line; perform implicit differentiation; define the differential; and use differentials to approximate function values.
Pre-requisite: MAT 1701. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

ME 1703(0.6) Course ID:0016159
Differentiation Applications
Determine critical points; determine intervals on which a function is increasing or decreasing; identify relative extrema; identify inflection points and intervals on which a function is concave up or concave down. Solve application problems involving relative rates and optimization for biological, social, or physical sciences and business. Determine whether a function is differentiable at a point. Find the derivative of functions including polynomial, rational, root, exponential, and logarithmic functions.
Pre-requisites: MAT 1702. Lecture: 0.6 credits. (9 contact hours).
Components: Lecture

ME 1704(0.5) Course ID:0016160
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

ME 1705(0.5) Course ID:0016161
Applications of Integration
Use definite integrals of find the area under a curve and between two curves. Find the integral of functions using polynomial, rational, root, exponential, and logarithmic functions. Solve application problems involving integrals for biological, social, and physical sciences or business. Pre-requisite: MAT 1704. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

MBS Medical Billing Specialist

MBS 110(8) Course ID:0016176
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:0016178
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

MGT Management

MGT 101(3) Course ID:0004892
Quality Management Principles
Students are introduced to fundamental concepts, principles, and practices used to improve quality in organizations. The need for organizational change is reviewed and paradigms of quality are introduced. An overview of areas of change, methods of quality planning and methods for implementing quality policies are provided. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

MGT 120(3) Course ID:0004897
Personal Finance
Information needed to make intelligent choices and take effective action in the management of personal resources is provided. Topics include financial planning, buying, borrowing, saving, budgeting, investing, insurance, and taxes. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

ME Mechanical Engineering

ME 203(3) Course ID:0004291
Introduction to Computer Graphics
Combines freehand sketching techniques, both orthogonal 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

ME 220(3) Course ID:0008837
Engineering Thermodynamics I
Components: Lecture Attributes: Technical
MGT 160(3) Course ID:004899
Introduction to Business
Business careers, terminology, and the interrelationships and complexities of business are introduced and examined in this survey course. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MGT 200(3) Course ID:004900
Small Business Management
Students are introduced to the many facets of establishing, operating and/or owning a small business. Topics include legal forms of business organization, finance, accounting, insurance, governmental regulations and assistance, economics, marketing, and management principles. Pre-requisite: BAS 160 or MGT 160 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Course Equivalents: BAS 200
Attributes: Technical

MGT 210(3) Course ID:017114
Managing Quality
Introduces students to fundamental concepts, principles and practices used to manage and improve quality in organizations. Explores basic quality concepts including continuous improvement, customer focus, value-added concept, quality tools, statistical techniques, quality awards, quality standards, scientific management using data, designing products and services for quality, and the historic influences of leaders in quality management. Pre-requisite: BAS 160. Lecture: 3 credit hours (45 contact hours).
Components: Lecture
Attributes: Technical

MGT 240(3) Course ID:005460
Business Ethics and Self Management
Emphasizes the need for managers to be self-directed to make ethical decisions. Explores moral principles, community standards and the ethics of decision making at personal and professional levels. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MGT 256(3) Course ID:004901
Operations Management
Concepts and methods for economical planning and control of activities required for transforming a set of inputs into specified goods or services are introduced. Emphasis is given to forecasting, decision analysis, cost analysis, design of production systems, production/marketing relationships, operations planning and control, and the importance of global competitiveness. Pre-requisite: BAS 160. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MGT 258(3) Course ID:006642
Project Management
Provides tools used in project management to accomplish the goals of society’s varied organizations. Provides insight into human behavior, knowledge of organizational issues, and skill with quantitative methods to allow successful project management. Pre-requisite: BAS 160. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MGT 267(3) Course ID:004913
Introduction to Business Law
The student is introduced to the state and federal court systems, tort and criminal law, law of contracts, partnerships, sale of goods, government regulations, bailments and negotiable instruments. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MGT 274(3) Course ID:004914
Human Resource Management
The student is introduced to the basic methods of recruiting, selecting, training, compensating, and maintaining a productive workforce. Concepts of effective employment relations including collective bargaining, contract administration, and safety and health programs are introduced. Techniques for systematic human resource planning and development of policies consistent with government regulations are emphasized. Pre-requisite: MGT 283 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MGT 283(3) Course ID:004916
Principles of Management
Provides students with an overview of management beginning with the key functions of planning and decision making, organizing, leading and controlling. Explores the many aspects of management including human behavior, motivation, leadership, change and teams. Pre-requisite: BAS 160 or MGT 160 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MGT 284(3) Course ID:004917
Applied Management Skills
A capstone course in which management theories and techniques are applied with emphasis on the action-skills that managers need for success. Course topics include delegating, motivating employees, team-building, conflict management, coaching and managing change. Pre-requisite: BAS 283/MGT 283 or prior supervisory experience. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MGT 287(3) Course ID:005217
Supervisory Management
Students study the roles and responsibilities of the supervisor, emphasizing human relations skills while recognizing the behavioral factors of individuals and groups in the work environment. Conceptual knowledge base and skills to support the supervisor’s role and responsibilities are identified and developed. Pre-requisite: MGT 283 or consent of the instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MGT 288(3) Course ID:004918
Self-Management
The need for managers to be self-directed before they can manage successfully the work of others is emphasized. Contemporary approaches to developing the behavioral skills needed to improve personal effectiveness are explored. Topics include personal planning and goal setting, time management, stress management, interpersonal and human relations skills. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MIL 101(2) Course ID:015681
Military Mountaineering and Leadership
This course is designed to be an introductory course to military science with emphasis on the following: Goal-setting, Physical Fitness Planning, Stress and Time Management, Mountaineering (which includes terminology, tools, and skills, rope management, knots, and rappelling/belaying techniques), and Basic Marksmanship. Additionally, cadets will receive an overview of Army Officership and the leadership skills necessary to succeed in any chosen career. Special attention will be given to the opportunities afforded an Army officer. Satisfactory completion of this course may be used to fulfill a General Education Category F requirement at Western Kentucky University (WKU). Lecture: 2.0 credits (2 contact hours).
Components: Lecture
Attributes: University Course (Western Kentucky University)

MIT 103(3) Course ID:000410
Medical Office Terminology
Introduces students to medical terminology including familiar elements, body systems, operative procedures, pharmacology, and methods of researching medical information including, but not limited to, names and descriptions of diseases and drugs. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

MIT 104(3) Course ID:0004103
Medical Insurance
Introduces students to the basics of medical insurance including: insurance terminology, various coding systems, government programs, and general insurance procedures. Pre-requisite Or Co-requisite: MIT 103 or AHS 115 or CLA 131. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MIT 106(3) Course ID:0004104
Introduction to Medical Transcription
Provides experience in transcription of basic medical dictation: incorporating English usage, transcription skills, medical knowledge, and proofreading and editing skills while meeting progressively demanding accuracy and productivity standards. Pre-requisite: Computer Literacy course and OST 110 and (ENG 101 or OST 108) and (AHS 115 or CLA 131 or MIT 103). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MIT 204(3) Course ID:0004105
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:0004509
Advanced Medical Coding
Applies advanced coding rules for various coding systems and applies the rules to code patient services for a variety of payment systems emphasizing payment fraud and/or abuse. Pre-requisite: MIT 204 or MBS 120. Lecture : 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MIT 206(3) Course ID:0004106
Medical Transcription
Applies advanced concepts of medical transcription and provides advanced practice. Pre-requisite: MIT 106 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
MIT 208(3) Course ID:004507
Instructor Consent Required
Inpatient Coding
Designed for students who have completed an entry-level coding course and are ready to move into more advanced hospital coding. Emphasizes inpatient coding using current government mandated coding systems. Pre-requisite: MIT 204. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MIT 212(1) Course ID:004506
Medications
Introduces the student to Pharmacology: the most commonly used drugs, their names, and classification; and drug reference books while stressing spelling. 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: OST 110 OR CIT 105 or OST 105 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MIT 219(3) Course ID:006970
Coding Exam Preparation
Designed to prepare medical coding students to take a certifying exam to become a professional outpatient coder. Includes outpatient coding cases and review of medical terminology, basic anatomy, basic pathophysiology, reimbursement issues, and advanced coding guidelines for government mandated coding systems. Pre-requisite: (MIT 204 and MIT 205) or MBS 120. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MIT 222(3) Course ID:006340
Electronic Medical Records
Provides a working knowledge of computerized medical records software used in a variety of healthcare facilities. Pre-requisite: MIT 217. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MIT 230(3) Course ID:004109
Medical Information Management
Identifies and applies rules and regulations of medical filing systems and procedures. Emphasizes management of both hard copy and magnetic media using alphanumeric, numeric, chronologic, and color-coded filing systems. Concepts mastered for file retention and archiving. Discusses legal and ethical aspects of medical records. Pre-requisite OR Co-requisite: Computer Literacy Course. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MIT 240(3) Course ID:017450
Medical Interpreter-Lecture
Prepares students who are bilingual to develop awareness, knowledge, and skills necessary for effective language interpretation in health care settings. Emphasizes the roles and responsibilities of a health care interpreter; application of knowledge of common medical conditions, treatments, and procedures in communication through verbal and written methods; insight in language and cultural nuances for specific communities; development of skills to work with the patient and the healthcare team. Pre-requisite OR Co-requisite: (ENG 101 AND MIT 103 AND BIO 135 OR BIO 137 AND BIO 139)) Or Instructor Consent. Lecture: 3 credits (45 contact hours)
Components: Lecture Attributes: Technical

MIT 241(1) Course ID:017449
Medical Interpreter-Laboratory
Provides practical supervised medical interpreting experience in a clinical or similar setting. Applies strategies and skills to facilitate the success of patient-healthcare provider interaction. Reviews and evaluates patient-healthcare provider interactions for clarity, efficacy, and adherence to a code of ethics reflecting national standards. Pre-requisite OR Co-requisite: MIT 240 OR Instructor Consent. Laboratory: 1 credit (30 contact hours).
Components: Laboratory Attributes: Technical

MIT 250(3) Course ID:017641
Legal Issues in Medical Information Management
Includes concepts and principles of law, legal principles, ethics, and issues that govern medical information management and patient health records & information. Covers legal and ethical issues as related to legal documents, health data, legal concepts, security, privacy, and current trends in health legislation. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

MIT 295(3) Course ID:006971
Medical Information Technology Capstone
Enhances the student's transition from class to work by providing unpaid learning activities related to the MIT field. Integrates work experience with academic instruction. Includes an internship, field experiences, and/or simulated work experiences in which the student applies previously or concurrently learned concepts to practical work situations within the MIT field. Pre-requisite: Consent of Program Coordinator. Lecture: 1.0 credit (15 contact hours). Practicum: 2.0 credits (120 credit 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. Lecture: 1.0 - 3.0 credits (45-135 contact hours).
Components: Practicum Attributes: Technical

MIT 1031(3) Course ID:016393
Intro to Med Terms & Systems
Introduces medical terminology including root words, prefixes and suffixes as well as general medical terms. Introduces medical terms related to the skeletal, muscular, blood, lymph, cardiovascular and respiratory systems. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 1032(1) Course ID:016394
Intermediate Body Systems
Introduces medical terms related to the blood, lymph, cardiovascular, respiratory and urinary systems as well as skin. Pre-requisite: MIT 1031. 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 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 2042(1) Course ID:016400
Inpatient Coding
Develops medical coding skills for inpatient coding systems. Includes reimbursement methodologies and advanced coding practices for inpatient coding. Pre-requisite: MIT 2041 or Consent of instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 2043(1) Course ID:016401
Outpatient Coding
Develops medical coding skills for outpatient coding systems. Includes reimbursement methodologies and advanced coding practices for outpatient coding. Pre-requisite: MIT 2042 or Consent of instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
MIT 2191(1) Course ID:017218
Medical Support Information
Designed to prepare medical coding students to take a certifying exam to become a professional outpatent (physician-based) coder as offered by AAPC or PHIA. Includes outpatient coding cases and review of medical terminology, basic anatomy, basic pathophysiology, reimbursement issues, and advanced coding guidelines for CPT, ICD-10-CM, and HCPCS coding systems. Pre-requisite: MIT 204 and MIT 205 or MBS 120. Lecture: 1 credit hour (15 contact hours).
Components: Lecture

MIT 2192(1) Course ID:017219
Procedural and supply coding & Reimbursement issues
Designed to prepare medical coding students to take a certifying exam to become a professional outpatient (physician-based) coder as offered by AAPC or PHIA. Includes outpatient coding cases and review of medical terminology, basic anatomy, basic pathophysiology, reimbursement issues, and advanced coding guidelines for CPT, ICD-10-CM, and HCPCS coding systems. Pre-requisite: MIT 2191. Lecture: 1 credit hour (15 contact hours).
Components: Lecture

MIT 2241(1) Course ID:016875
Managing the Medical Office
Emphasizes the healthcare setting, medical office communications, and human resource management. Pre-requisite OR Co-requisite: MIT 230, MIT 217, MIT 104. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

MIT 2242(1) Course ID:016876
Managing the Medical Record
Focuses on the correct use, care, regulations and rules concerning medical records. Pre-requisite OR Co-requisite: MIT 2241, MIT 230, MIT 217, MIT 104. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

MIT 2243(1) Course ID:016877
Medical Office Revenue Cycle
Emphasizes accounting and payroll as well as marketing of the medical office. Pre-requisite OR Co-requisite: MIT 2242, MIT 230, MIT 217, MIT 104. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

MIT 2281(1) Course ID:016403
Intro to E-Health Records
Provides an introduction to electronic health records and gives students a working knowledge of industry-standard electronic medical records software program emphasizing ethical and regulatory issues and methods. Pre-requisite: MIT 227 or consent of instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 2282(1) Course ID:016404
Clinical Office Administration
Provides a working knowledge of computerized medical records software to simulate tasks including to create/ maintain patient records and maintain office scheduling. Pre-requisite: 2281 or consent of instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 2283(1) Course ID:016405
Clinical Tools and Procedures
Provides a working knowledge of computerized medical records software to complete scenario based projects to use templates and create/analyze reports. Emphasizes text and medical diagnosis codes. Pre-requisite: 2282 or consent of instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 2301(1) Course ID:016406
Intro to Medical Info Mgmt
Identify rules and regulations of medical filing systems and procedures. Pre-requisite: Digital Literacy. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 2302(1) Course ID:016407
Applied Medical Info Mgmt
Applies rules and regulations of medical filing systems and procedures. Emphasizes management of both hard copy and magnetic media using alphanumeric, numeric, chronologic, and color-coded filing systems. Pre-requisite: MIT 2301. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 2303(1) Course ID:016409
Records Mgmt/Legal Issues
Master file retention and archiving. Discusses legal and ethical aspects of medical records. Reinforces rules and regulations of medical filing systems and procedures. Pre-requisite: MIT 2302. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 2951(1) Course ID:016840
Office Skills Development
Introduce a simulated office setting. Acquire knowledge, skills and abilities involved with managing work flow processes and procedures, the work environment. Apply decision making and working autonomously. Pre-requisite: Consent of Program Coordinator. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

MIT 2952(1.5) Course ID:016841
Simulations/Work-based Learning
Complete a diverse set of learning activities and assigned tasks utilizing medical office simulation software or participate in a work-based learning experience such as internship/apprenticeship. Analyze and evaluate documents for data entry, storage, and data retrieval. Pre-requisite: MIT 2951 or Consent of Program Coordinator. Practicum: 1.5 credits (90 contact hours).
Components: Practicum

MIT 2953(0.5) Course ID:016842
Program Pathway Assessment
Demonstrate proficiency using medical office simulated software, office system procedures, and the utilization of workplace principles through end of program assessment. Pre-requisite: MIT 2952 or Consent of Program Coordinator. Practicum: 0.5 credits (30 contact hours).
Components: Practicum

MKT Marketing
MKT 100(3) Course ID:001713
Introduction to Marketing
This course introduces the essentials of marketing for small and large organizations and develops concepts such as publicity, promotion, and market research, while emphasizing the importance of communication, interpersonal and management skills. (Keyboarding recommended). Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

MKT 155(3) Course ID:004898
Personal Selling
The professional selling process which involves a series of interrelated activities is introduced. Emphasis is placed on planning and delivery of sales presentations. The six selling steps are examined - prospecting, qualifying, presenting, answering objections, closing, and the

MKT 230(3) Course ID:004919
Advertising and Promotion
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: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MKT 293(3) Course ID:004921
Buying and Merchandising
Decision making strategies are used to solve problems inherent in merchandise selection. Analysis of financial statements and their relationship to buying situations are included, along with cost control and the establishment of sales goals and objectives. Mark-ups, reduction planning, unit cost control, and other computations are emphasized. Pre-requisite: BAS 291/MKT 291. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

MKT 295(3) Course ID:017675
Consumer Behavior
Introduces students to the fundamental concepts and principles of consumer behavior. Examines how these concepts are used by consumers when making purchasing decisions. Pre-requisite: BAS 160. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MLT Medical Laboratory Technology
MLT 101(3) Course ID:004073
Introduction to the Clinical Laboratory
Includes an orientation to the laboratory and management structure, professional organizations, professional ethics, communication, and record keeping. Covers medical terminology and abbreviations, quality assurance procedures, medical safety and rules and regulations, 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: 3.0 credits (75 contact hours)
Components: Laboratory, Lecture Attributes: Technical

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MLT 112(2) Course ID: 004177
Urinalysis
Focuses on methodology and clinical significance of urine chemical analysis, interferences with chemical analysis procedures, screening methods used in diagnostic determinations, collection and handling of specimens, and the characteristics and clinical significance of formed elements of the urine. Includes the physiological function of the kidneys and diseases which affect the urinary system. Pre-requisite: Admission into the MLT program or permission of the MLT program director/coordinator. Pre-requisite Or Co-requisite: MLT 101 or PHB 170. If taken as a pre-requisite, a minimum grade of "C". Lecture/Lab: 2.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MLT 115(2) Course ID: 004178
SEROLOGY
Introduces basic immunological principles. Includes applications of serological testing for the diagnosis and monitoring of diseases and other antigenic responses. Pre-requisite: Admission into the MLT program or permission of the MLT program director/coordinator. Lecture/Lab: 2.0 credits (37.50 contact hours).
Components: Lecture Attributes: Technical

MLT 119(3) Course ID: 004179
Applied Laboratory
Prepares the MLT student for clinical rotation into the major areas of the laboratory. Includes practical application in Hematology, Clinical Microbiology, Immunohematology, Urology, Serology, and Clinical Chemistry. Pre-requisite: Admission into the MLT program or permission of the MLT program director/coordinator. Pre-requisite OR Co-requisite: MLT 101. If taken as a pre-requisite, a minimum grade of "C". Lecture/Lab: 3.0 credits (105 contact hours).
Components: Laboratory, Lecture Attributes: Course Also Offered in Modules, Technical

MLT 205(3) Course ID: 004181
Clinical Microbiology I
Introduces the application of microbiological principles to clinical laboratory practice. Includes safety and use of standard precautions, staining, selection and use of media, specimen processing, cultivation and identification of bacteria, and antimicrobial susceptibility testing. Pre-requisite: [MLT 101 and MLT 119] or BIO 225 with a grade of "C" or greater; admission into the MLT program; permission by MLT program director/coordinator. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (45 contact hours).
Components: Laboratory, Lecture Attributes: Technical

MLT 206(2) Course ID: 004182
Clinical Microbiology II
Continues with the application of microbiological principles to clinical laboratory practice. Includes mycology, parasitology, virology, and mycobacteriology. Pre-requisite: Admitted into the MLT program; permission of the MLT program director/coordinator. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

MLT 207(2) Course ID: 000282
Introduction to Clinical Diagnostic Microbiology
Reviews the basic concepts of bacterial cell structure, physiology, nomenclature and classification. Emphasizes safety in the microbiology department of the laboratory. Introduces specimen processing as it relates to the microbiology department in the clinical laboratory. Covers the practical importance of identifying microorganisms through morphology on culture media, appearance on gram stain, and biochemical reactions. Pre-requisite: Admission into the MLT program OR permission of the MLT Program Director/MLT Clinical Coordinator. Lecture/Lab: 2.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MLT 208(3) Course ID: 006399
Clinical Diagnostic Microbiology I
Discusses theoretical concepts, disease processes, identification schemas, diagnostic characteristics, biochemical reactions, susceptibility testing, and isolation and identification of gram positive and gram negative microorganisms associated with infections diagnosed in the clinical laboratory microbiology department. Pre-requisite: MLT 207 with a grade of "C" or better OR permission of the MLT Program Director/MLT Clinical Coordinator. Lecture/Lab: 3.0 credits (75 contact hours).
Components: Lecture Attributes: Technical

MLT 209(2) Course ID: 006400
Clinical Diagnostic Microbiology II
Exposes the student to a study of anaerobes, forming gram positive bacilli, virology, mycobacterium, mycoplasma, spirochetes, mycology and parasitology with focus on the clinical diseases and diagnostic procedures in the microbiology department of the clinical laboratory. Pre-requisite: MLT 208 with a grade of "C" or better OR permission of the MLT Program Director/MLT Clinical Coordinator Lecture/Lab: 2.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MLT 215(4) Course ID: 004183
Hematology I
Covers hemopoiesis and classic methodologies of standard hematology procedures. Includes the principles of various automated hematology analyzers, histograms and scattergrams. Provides students with the opportunity to perform basic hematology and coagulation procedures, correlate laboratory data to aid in diagnosis, and describe 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 classical methodologies related to standard hematology procedures. Includes collection and processing of proper specimens, performance of quality control, and analysis of fundamental hematological parameters to aid in diagnosis. Pre-requisite: Admission into the MLT program OR permission of the MLT Program Director/MLT Clinical Coordinator. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

MLT 218(4) Course ID: 006402
Clinical Hematology
Continues the study of hematology. Includes hemostasis, anemias, leukemias, lymphomas, miscellaneous abnormal white blood cell disorders, body fluid analysis and other special hematology 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; admission into the MLT program; permission by MLT program director/coordinator. Lecture: 1.0 credit (15 contact hours). Laboratory: 1.0 credit (45 contact hours).
Components: Laboratory, Lecture Attributes: Technical

MLT 226(2) Course ID: 004186
Immunohematology II
Includes antibody screening and panel interpretation, compatibility testing, viral markers and related disease states, hemolytic disease, and HLA markers. Pre-requisite: MLT 225 or Permission by MLT Program Director/Coordinator. Lecture: 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 Or Co-requisite: MLT 115 with a grade of C or greater and admission into the MLT program; permission of the MLT Program Director/MLT Clinical Coordinator. Lecture/Lab: 4 credits (150 contact hours).
Components: Lecture Attributes: Technical

MLT 228(3) Course ID: 004187
Clinical Chemistry I
Provides a review of basic inorganic chemistry and organic chemistry principles and types of instrumentation commonly used in a medical laboratory. Covers carbohydrates, non-protein nitrogen compounds, proteins, lipids and enzymes as related to clinical diagnosis. Introduces quality control procedures, including statistical calculations for graph preparation and interpretation of gathered data. Pre-requisite: (MLT 101 with a grade of "C" or greater and admission into the MLT program) or MLT Program Coordinator/Director. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

MLT 229(4) Course ID: 004188
Clinical Chemistry II
Presents the physiology and testing of liver function, hormones, electrolytes and acid-base metabolism. Includes toxicology and therapeutic drug monitoring, tumor markers, and special chemistries. Pre-requisite: MLT 101 with a grade of "C" or greater; permission by MLT program director/coordinator. Pre-requisite Or Co-requisite: MLT 233. If taken as a Pre-requisite, a minimum grade of C. Lecture: 1.0 credit (15 contact hours). Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

MLT 247(3) Course ID: 006403
Introduction to Clinical Chemistry
Introduces the student to a variety of automated instrumentation and methodologies of selected chemistry test procedures. Exposes student to the basic principles as well as the techniques used in clinical chemistry to assess carbohydrates, non-protein nitrogen compounds, amino acids and proteins, lipids and lipoproteins, and enzymes as related to clinical diagnosis. Acquaints the student with basic laboratory mathematics and quality assurance procedures utilized in the clinical laboratory department. Pre-requisite: Admission into 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, the specific 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 275(1) Course ID:006631
Clinical Experience
Familiarizes the student with the clinical laboratory environment as it relates to phlebotomy and front office responsibilities. Includes blood collection procedures, handling and answering internal phone calls, communication with and registration of patients, insurance filing and data entry. Pre-requisite: Admission into the MLT program or permission of the MLT program director or coordinator. Clinical: 1.0 credit (30 contact hours).
Components: Clinical

MLT 278(4 - 5) Course ID:004253
Practicum I
Develops performance skills and professional attitude in the student in assigned areas of the clinical laboratory. Utilizes and depends upon external institutions to 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. Pre-requisite: MLT 101 with a grade of “C” or better OR Admission into MLT program OR permission by MLT Program Director/Coordinator. Practicum: 4-5 credits (240-300 contact hours).
Components: Practicum
Attributes: Course Also Offered in Modules, Technical

MLT 279(4 - 5) Course ID:004254
Practicum II
Develops performance skills and professional attitude in the student in assigned areas of the clinical laboratory. Utilizes and depends upon external institutions to ensure adequate clinical education and training. Each clinical laboratory affiliate has designated personnel to assist the student in all assigned areas of the clinical laboratory. Provides a prescribed schedule of rotations in various departments of the laboratory for each individual student by the MLT Program Director. This practicum is designed to develop skills with strong supervisory instruction in all assigned departments. Pre-requisite: MLT 101 with a grade of “C” or better OR Admission into MLT program; OR permission by MLT program director/coordinator. Pre-requisite: MLT 101 with a grade of “C” or better OR Admission into MLT program OR permission by MLT Program Director/Coordinator. Practicum: 4-5 credits (240-300 contact hours).
Components: Practicum
Attributes: Course Also Offered in Modules, Technical

MLT 1119(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 MLT student for clinical rotation into the major areas of the laboratory. Includes practical application in Clinical Microbiology, Immunohematology, Serology, and Clinical Chemistry. Pre-requisite: MLT 1191 with a grade of “C” or greater. Lecture: 0.5 credit (7.5 contact hours). Lab: 1.0 credit (45 contact hours).
Components: Laboratory, Lecture

MLT 2781(2 - 2.5) Course ID:005340
Practicum I Part 1
Develops performance skills and professional attitude in the student in assigned areas of the clinical laboratory. Utilizes and depends upon external institutions to 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 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 2781 with a grade of “C” or greater. Practicum: 2 - 2.5 credits (120-150 contact hours).
Components: Practicum

MLT 2791(2 - 2.5) Course ID:005342
Practicum II Part 1
Develops career entry level performance skills and professional attitude in the student in assigned areas of the clinical laboratory. Provides an opportunity for more responsibility and independence with previously learned procedures. Enables the student’s transition to the world of work by providing work experiences in a clinical setting. 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 CLT program director. Pre-requisite: MLT 101 with a grade of “C” or greater, OR admission to the MLT program. Practicum: 2 - 2.5 credits (120-150 contact hours).
Components: Practicum

MLT 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 a clinical setting. 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 CLT program director. Pre-requisite: MLT 2791 with a grade of “C” or greater. Practicum: 2 - 2.5 credits (120-150 contact hours).
Components: Practicum

MNA 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 1396d and 907 KAR 1:450. Lecture/ Lab: 3.0 credits (75 contact hours). (45:1 ratio).
Components: Lecture
Course Equivalents: NAA 100
Attributes: Technical

MLT 247(4) 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

MLG 123(4) Course ID:000576
Mining Electricity I
Qualifies students to take the Mine Electrical Certification Exam administered by Kentucky Office of Mine Safety and Licensing. Includes topics of basic electricity, direct current circuits, impedance, reactance, power, electrical energy, permisibility, underground and surface law, solid-state, and national instruments and applications. Co-requisite: MLG 125. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

MLG 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, permisibility and maintenance. Co-requisite: MLG 123. Laboratory: 1.0 credits (30 contact hours).
Components: Laboratory
Attributes: Technical

MLG 150(3) Course ID:000587
Mining Laws
Provides the theory, intent, construction and application of state and federal regulations pertaining to underground and surface coal mining. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MLG 160(3) Course ID:006646
Elements of Underground Mining
Introduces underground mining methods, operations, and procedures. Includes topics of miners’ rights, work environments, health and safety standards, roof control, mine ventilation, transportation, communication, compressed gas cylinders, explosives, mine gases and instruments, electrical hazards, accident prevention, and emergency procedures. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MLG 170(2) Course ID:006648
Elements of Surface Mining
Introduces study of surface mining methods, operations, and procedures. Includes topics of miners’ rights, work environments, ground control, health and safety standards, transportation, communication, compressed gas cylinders, explosives, mine gases and instruments, electrical hazards, accident prevention, and emergency procedures. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
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 prevent marine accidents or casualty. Lecture: 3 credits (45 contact hours).
Components: Lecture
Same As Offering: MRN 102
Attributes: Course Also Offered in Modules, Technical

MRN 102(3) Course ID:006707
Basic Marine Safety
Provides an overview of risk-based decision making skills for assessing and managing marine hazards to prevent marine accidents or casualty. Lecture: 3 credits (45 contact hours).
Components: Lecture
Same As Offering: MRN 102
Attributes: Course Also Offered in Modules, Technical

MRN 103(3) Course ID:007412
Applied Marine Weather
Covers fundamental marine weather concepts to plan safe and efficient voyages. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

MRN 104(3) Course ID:007413
Marine Crew Wellness
Examines how nutrition, exercise, and disease affect the crewmembers’ ability to maintain a U.S. Coast Guard license. Focuses on nutrition and exercise programs while working, and prevention of disease. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

MRN 109(6) Course ID:006708
Marine Co-Op Experience I
Gives students experience in a higher level position in the marine industry. Provides compensated on-the-job work experience under the supervision of a qualified affiliate of the industry. Pre-requisite: 360 hours of river industry experience. Co-op Employment with the company providing the co-op experience. Co-op: 6 credits (450 contact hours).
Components: Co-Op
Attributes: Technical

MRN 200(3) Course ID:006709
Shipboard Deck Operations
Provides specific responsibilities, policies, training, safety and rigging procedures for towboat personnel. Pre-requisite: MRN 100. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MRN 201(3) Course ID:006710
Rules of the Road
Provides an in-depth analysis of the United States Coast Guard (USCG) Navigation Rules with an emphasis on the history and interpretation of the rules. Lecture: 3 credits (45 contact hours).
Components: Lecture
Same As Offering: MRN 201
Attributes: Technical

MRN 201(3) Course ID:006710
Rules of the Road
Provides an in-depth analysis of the United States Coast Guard (USCG) Navigation Rules with an emphasis on the history and interpretation of the rules. Lecture: 3 credits (45 contact hours).
Components: Lecture
Same As Offering: MRN 201
Attributes: Technical

MRN 202(3) Course ID:006711
Piloting and Navigation
Identifies the effect of inland waterway prevailing conditions on vessels; provides instruction on locking procedures, radio telephone regulations, hydrology, and piloting skills. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MRN 203(2) Course ID:006712
Environmental Protection Rules
Provides analysis of environmental regulations governing the marine industry. Explores the environmental practices of vessels on the inland waterways and the governing agencies which establish industry regulations. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MRN 204(5) Course ID:006713
Marine Electrical Systems
Explores and applies the theory of electricity with an emphasis on power systems, circuits, safety procedures, and maintenance measures needed to maintain electrical systems aboard towing vessels. Lecture/Lab: 5.0 credits (105 contact hours).
Components: Lecture
Attributes: Technical

MRN 205(3) Course ID:006714
Marine Electrical Systems II
Explores the maintenance measures needed to maintain electrical systems aboard towing vessels on the inland river system. Pre-requisite: MRN 204. Lecture/Lab 3 credits (60 contact hours).
Components: Lecture
Attributes: Technical

MRN 206(5) Course ID:006715
Marine Diesel
Introduces the operation and components of a marine diesel engine with emphasis on diesel engine theory, safety precautions, internal and external components, and contributing operation systems. Lecture/Lab: 5.0 credits (105 contact hours).
Components: Lecture
Attributes: Technical

MRN 207(2) Course ID:006716
Marine Diesel II
Identifies the various systems involved in the operation of a marine diesel engine, including the application of the knowledge of diesel operation to maintenance and troubleshooting exercises. Pre-requisite: MRN 206. Lecture: Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

MRN 208(3) Course ID:006717
Inland River Systems
Explores the U.S. inland waterway system and its tributaries as they relate to the inland marine industry and the movement of cargos. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Same As Offering: MRN 208
Attributes: Technical

MRN 208(3) Course ID:006717
Inland River Systems
Explores the U.S. inland waterway system and its tributaries as they relate to the inland marine industry and the movement of cargos. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Same As Offering: MRN 208
Attributes: Technical

MRN 212(5) Course ID:007414
Marine Fluid Systems
Incorporates practical experience in fluid power theory, component identification and application, schematic reading, and basic calculations related to marine fluid systems. Lecture/Lab: 5.0 credits (105 contact hours).
Components: Lecture
Attributes: Technical
MRN 214(4)  Course ID:007415
Marine Refrigeration Systems
Introduces the fundamentals of refrigeration, including use of tools, test equipment, materials, environmental issues, and safety. Lecture/Lab: 4.0 credits (69 contact hours).
Components: Lecture
Same As Offering: MRN 214
Attributes: Technical

MRN 214(4)  Course ID:007415
Marine Refrigeration Systems
Introduces the fundamentals of refrigeration, including use of tools, test equipment, materials, environmental issues, and safety. Lecture/Lab: 4.0 credits (69 contact hours).
Components: Lecture
Same As Offering: MRN 214
Attributes: Technical

MRN 299(6)  Course ID:006720
Marine Co-Op Experience II
Gives students further experience in a higher level position in the marine industry. Provides supervised on-the-job work experience directly in line with the students' educational objective. Pre-requisite: MRN 199. Co-requisite: Current employment with the company providing the co-op experience. Co-Op: 6 credits (450 contact hours).
Components: Co-Op
Attributes: Technical

MSE Material Science Engineering

MSE 201(3)  Course ID:005596
Introduction to Materials Science
Microscopic and macroscopic structure as related to the properties of materials with engineering applications. Pre-requisite: CHE 105, MA 113. Co-requisite: MA 114. Lecture: 3 credits (45 contact hours).
Components: Lecture
Same As Offering: MSE 201, MSE 201
Attributes: Other, University Course (University of Kentucky)

MSG Massage Therapy

MSG 100(4)  Course ID:003986
Musculoskeletal Anatomy & Physiology I
Provides extensive knowledge of the skeletal system and major joint articulations and an introduction to the musculoskeletal system of the human body from beginning terminology through the study of muscle tissue and neuromuscular fundamentals. Pre-requisite Or Co-requisite: (CLA131 or OST103 or AHS115). Co-requisite: MSG 125. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Technical

MSG 110(4)  Course ID:003987
Musculoskeletal Anatomy and Physiology II
Details muscular interactions at major joint articulations including biomechanical concepts and muscles, joints, and innervations of the upper and lower extremities. Pre-requisite: MSG 125. Pre-requisite Or Co-requisite: MSG135. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Technical

MSG 117(4)  Course ID:016866
Musculoskeletal Anatomy & Physiology I
Introduces the skeletal system and major joint articulations. Integrates the skeletal system with the muscular system, beginning with basic terminology and advancing to the fundamental connection with muscle and neuromuscular tissue. Pre-requisite: AHS 115 or CLA 131 or MIT 103. Lecture/Lab: 4.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

MSG 119(4)  Course ID:016867
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 systematic 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 systematic 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 muscle and neuromuscular systems. Enhances the students' skills for delivering an improved one-hour full body therapeutic massage. Pre-requisite: MSG 132. Lecture/Lab: 3.0 credits (105 contact hours).
Components: Lecture
Attributes: Technical

MSG 135(3)  Course ID:003991
Musculoskeletal Anatomy & Physiology II
Provides extensive knowledge of the skeletal system and major joint articulations and an introduction to the musculoskeletal system of the human body from beginning terminology through the study of muscle tissue and neuromuscular fundamentals. Pre-requisite: MSG 100 and MSG 125. Lecture: 1.0 credit (15 contact); 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 a 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, 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 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

MST Manufacturing Systems Technology

MST 200(3)  Course ID:001778
Advanced Hydraulic Systems
The advanced hydraulic systems class will cover design, repair, and troubleshooting of hydraulic systems. Pre-requisite: FPX 100, FPX 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MST 201(2)  Course ID:001779
Advanced Hydraulic Systems Lab
The advanced hydraulic systems lab will cover design, repair, and troubleshooting of hydraulic systems. Pre-requisite: FPX 100, FPX 101. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

MST 204(3)  Course ID:001780
Advanced Pneumatic Systems
Design, repair, and troubleshooting of pneumatic systems will be covered in this course. Pre-requisite: FPX 100, FPX 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical
MST 206(3) Course ID:005259
Electrohydraulics
Introduces electronic/electrical controls as it pertains to hydraulic valve control with the emphasis on automation, robotic and servo control. Pre-requisite: (ENGT 110 and FPX 100) or Consent of Instructor. Co-requisite: MST 207. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MST 207(2) Course ID:005260
Electrohydraulics Lab
Introduces electronic/electrical controls as it pertains to hydraulic valve control with the emphasis on automation, robotic and servo control. Laboratory: 2 credits (90 contact hours). Pre-requisite: (ENGT 111 and ENGT 113 and FPX 101) or Consent of Instructor. Co-requisite: MST 206.
Components: Laboratory
Attributes: Technical

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 plum brick to the line, bricking gables and building columns. Covers application techniques for setting up different types of masonry materials, marking off layout lines and erecting batter boards along with techniques employed in different types of weather and climates. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

MSY 113(3) Course ID:001656
Intermediate Masonry
Builds on proficiency in competencies learned in MSY 105. Focuses on laying straight and plum brick to the line with emphasis on bricking gables and building columns. Pre-requisite: MSY 105 with a grade of C or higher or Consent of Instructor. Lab: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

MSY 198(3) Course ID:001657
Instructor Consent Required Practicum I
Provides supervised on-the-job work experience related to the students educational objectives. Students participating in the Practicum do not receive compensation. Pre-requisite: Consent of Instructor. Practicum: 3.0 credits (90 contact hours).
Components: Practicum
Attributes: Technical

MSY 205(3) Course ID:001660
Advanced Masonry
Provides experience in laying quoin corners, bricking in around electrical and plumbing units, and laying door and window brick sills. Provides opportunity for students to construct expansion joints, piers, pilasters and retaining and splitface block walls. Pre-requisite: [MSY 105 and MSY 115 with a grade of C or higher] or Consent of Instructor. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

MSY 215(3) Course ID:001661
Masonry Lab
Provides for practice and application of principles, theories and skills taught in MSY 105, MSY 115, MSY 205. Pre-requisite: [MSY 105 and MSY 115 and MSY 205] with a grade of "C" or higher] or Consent of Instructor. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

MSY 225(3) Course ID:001662
Brick Construction
Covers the application of laying brick to a line 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 door and window frames, and setting steel lintels and bearing plates. Covers the installation of dovetail ties to concrete, setting preformed masonry lintels, and laying of paving brick in a herringbone pattern. Pre-requisite: MSY 105 with a grade of "C" or higher or Consent of Instructor. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

MSY 251(3) Course ID:001665
Concrete Finishing
Focuses on theory and techniques inherent in the art of concrete finishing. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

MSY 253(3) Course ID:001666
Masonry Floors and Steps
Provides students with the opportunity to lay paving brick, steps, and flagstone floors including laying different types of patterns. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

MSY 257(3) Course ID:001668
Stone
Includes identifying the types of stone and the different types of bonds used in stone masonry. Pre-requisite: MSY 105 with a grade of "C" or higher or Consent of Instructor. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

MSY 275(3) Course ID:001669
Fireplace Construction
Presents different types and styles of indoor and outdoor fireplaces, and the principles of layout, drafting and drawing a fireplace. Includes finishing dimensions of fireplace opening, firebox layout, setting the flue lining, and applying a chimney cap. Pre-requisite: MSY 205 with a grade of C or higher or Consent of Instructor. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

MSY 281(1 - 3) Course ID:001670
Masonry Applications
Provides students with additional opportunity to refine skills. Lab: 1.0 - 3.0 credits (45-135 contact hours).
Components: Laboratory
Attributes: Technical

MSY 289(3) Course ID:001671
Instructor Consent Required Practicum II
Provides additional supervised on-the-job work experience related to the student's educational objectives. Students participating in the Practicum do not receive compensation. Pre-requisite: Consent of Instructor. Practicum: 3.0 credits (90 contact hours).
Components: Practicum
Attributes: Technical

MUC Music

MUC 190(1) Course ID:005593
Instructor Consent Required
Marching Band
Preparation for and performance at university athletic functions, primarily football games. May be repeated to a maximum of four credits. Pre-requisite: Audition and permission of the instructor. Lab: 1 credit (45 contact hours).
Components: Laboratory
Attributes: Other, University Course (University of Kentucky)

MUP Music Performance

MUP 101(1 - 3) Course ID:002242
Instructor Consent Required
Piano
Students enrolled in MUP courses for two or more credit hours may be required to attend performance classes as well as lessons. Pre-requisite: Satisfactory audition and/or approval of instructor. Laboratory: varies.
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. Pre-requisite: Satisfactory audition and/or approval of instructor. Laboratory: varies.
Components: Laboratory
Attributes: Other

MUP 123(1 - 3) Course ID:002245
Instructor Consent Required
Classical Guitar
Students enrolled in MUP courses for two or more credit hours may be required to attend performance classes as well as lessons. Pre-requisite: Satisfactory audition and/or approval of instructor. Laboratory: varies.
Components: Laboratory
Attributes: Other

MUP 201(1 - 3) Course ID:002246
Instructor Consent Required
Piano
Students enrolled in MUP courses for two or more credit hours may be required to attend performance classes as well as lessons. Pre-requisite: Satisfactory audition and/or approval of instructor. Laboratory: varies.
Components: Laboratory
Attributes: Other

MUP 223(1 - 3) Course ID:003978
Instructor Consent Required
Classical Guitar (Second Level)
Students enrolled in MUP courses for two or more credit hours may be required to attend performance classes as well as lessons. Pre-requisite: Satisfactory audition and/or approval of instructor. Laboratory: varies.
Components: Laboratory
Attributes: Other

MUS Music

MUS 100(3) Course ID:000883
Introduction to Music
Introduces the elements of music as they apply to the listening experience. Emphasizes the development of an awareness and understanding of musical styles from the Middle Ages to the present. Designed for the non-music major with no prior knowledge of music and is not intended to fulfill a program course requirement for music majors. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, Course Also Offered
MUS 172(3)  Course ID:004775
World Music
A geographic survey of selected music cultures throughout the world with hands-on experience playing the music of diverse cultures, audio/video examples of music-cultures in performances, reading and writing assignments, and attendance and reporting at live music events. Includes informational presentations by students, group listening and discussion, simple musical instrument construction, and small group projects. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH – Arts and Humanities

MUS 223(3)  Course ID:002253
History and Sociology of Rock Music
Provides a listening survey course, with a chronological approach, covering the years 1956-present. Emphasizes both the music and the sociological climate reflected and advocated by the music. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other

MUS 260(2)  Course ID:000692
Teaching Music in the Elementary Grades I
Develops musicianship, skills, and techniques teachers need to direct musical activities effectively in the elementary classroom. Introduces music fundamentals and teaching materials through active participation in musical activities, focusing on music education appropriate for elementary grades. Should be taken by classroom teachers and non-music majors and followed by MUS 261. Lecture/Lab: 2 credits (45 contact hours).
Components: Lecture
Attributes: Other

MVC 299(1 - 3)  Course ID:006343
Special Topics in Music
Examines selected topics in music and/or their impact on culture. May include but is not limited to individual composers, music genres, defined eras, and applied skills. Topics may vary from semester to semester at the discretion of the instructor. Pre-requisite: MUS 100 or consent of the instructor. Lecture: 1-3 credits (15-45 contact hours).
Components: Lecture
Attributes: Other

MVC 299(1 - 8)  Course ID:005317
Metroversity
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 101(3) Course ID:004611
Nursing Assistant Skills I
Provides knowledge and skills for nurse aides to assume the role and responsibility required in a long term care setting. The focus is communication, infection control, safety, resident/patient rights, and basic nursing skills. Note: Faculty and clinical sites must comply with applicable Federal and Kentucky laws and regulations including but not limited to 42 USC 1396r and 907 KAR 1:450. Lecture 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
NAA 102(3) Course ID:006887
Basic Health Unit Coordinating
Presents the duties and responsibilities of the health unit coordinator with an emphasis on communication skills, confidentiality, legal and ethical issues, and order entry. Lecture 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
NAA 115(3) Course ID:004612
Nursing Assistant II
Provides knowledge and skills for nurse aides to assume the role and responsibility required in a variety of health care settings. Builds upon MNA 100/NAA 100 and prepares the student to perform advanced nursing assistant skills. Pre-requisite: (MNA 100 or NAA 100) with a grade of “C” or above within one year) or Active Status on the Kentucky Nurse Aide Registry (in good standing)) or consent of instructor. Lecture: 2.0 credits (30 contact hours) Lab: 1.0 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
NAA 125(6) Course ID:004613
Advanced Nursing Assistant
Provides knowledge and skills for nurse aides to assume the role and responsibility required in a variety of health care settings. Focuses on communication, infection control, safety, resident/patient rights while preparing the student to perform advanced nursing assistant skills. Note: Faculty and clinical sites must comply with applicable Federal and Kentucky laws and regulations including but not limited to 42 USC 1396r and 907 KAR 1:450. Lecture 6.0 credits (150 contact hours).
Components: Lecture
Attributes: Technical
NAA 1021(1) Course ID:016419
Health Unit Coordinating
Presents communication skills and safety duties and responsibilities of the health unit coordinator. Lecture: 1 credit (15 contact hours).
Components: Lecture
NAA 1022(1) Course ID:016420
Health Unit Management
Presents health unit coordinator duties and responsibilities regarding confidentiality and legal and ethical issues. Pre-requisite: NAA 1021 Lecture: 1 credit (15 contact hours).
Components: Lecture
NAA 1023(1) Course ID:016421
Transcription of Orders
Presents order entry duties and responsibilities of the health unit coordinator. Pre-requisites: NAA 1022. Lecture: 1 credit (15 contact hours).
Components: Lecture
NFS Nutrition and Food Science
NFS 101(3) Course ID:000898
Human Nutrition and Wellness
Food composition, digestion, absorption, and metabolism as related to selection of nutrients essential for human life, growth, reproduction, lactation, wellness, and physical activity. Not open to NFS majors except hospitality management students. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other
WG 1001(0.25)
Basic Procedures/Processes
Presents the major components of a natural gas system from well head to burner. Presents actions that each component has on the gas stream in the context of the total system. Reviews key terms and definitions applied to conditions common to the utilization of natural gas. Lecture: 0.25 credits (3.75 contact hours).
Components: Lecture
WG 1002(0.25)
Basic Properties of Fuel Gases
Presents advanced procedures for extracting natural gas from the earth and for transporting and regulating natural gas with an emphasis on the physical and chemical properties of natural fuel gases. Lecture: 0.25 credits (3.75 contact hours).
Components: Lecture
WG 1003(0.75)
Adjusting Gas Burners
Presents the science of gas burner design, factors affecting the proper combustion of fuel gas, and techniques used to measure gas input rates, gas flow, and pressure. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture
WG 1004(0.75)
Regulating Natural Gas
Presents factors related to measurement of natural gas in a distribution system, pressure regulation, accurate measurement of natural gas, and irregularities in meter installations. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture
WG 1005(0.5)
Gas Distribution Calculations
Presents methods for calculating and volume measurements, gas flow rate measurements and heating values, venting and ventilation requirements for proper burning of natural gas, and comparing fuel costs. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture
WG 1006(0.5)
Records & Compliance Reports
Focuses on U.S. Department of Transportation reporting requirements, reading maps of natural gas systems, and preparing field sketches. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture
WG 1101(1.25)
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
WG 1102(0.75)
Safe Working Environment
Emphasizes work safety practices, proper use of equipment, hazards of escaping gas, and drug testing and rehabilitation programs. Lecture: 0.25 credits (3.75 contact hours); Laboratory: 0.5 credits (15 contact hours).
Components: Laboratory, Lecture
WG 1103(0.5)
Preventing Accidental Ignition
Identifies conditions, causes, and hazards related to gas leakage; emphasizes safety practices and procedures to prevent accidental ignition of natural gas. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture
WG 1104(0.5 - 500)
Traffic Control Guidelines
Present the basic standard for traffic control as described in the annual on Uniform Traffic Control Devices, Part VI According to the U.S. Department of Transportation. Lecture/Laboratory: varies.
Components: Laboratory, Lecture
WG 1401(0.5)
Excavating
Focuses on the Occupational Safety and Health Administration (OSHA) requirements for earth excavation, protection systems, and tables and specifications for designing protective systems. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture
WG 1402(1.25)
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
WG 1403(0.75)
Safety in Confined Spaces
Introduces confined spaces with emphasis on identifying hazards, monitoring of the atmosphere, entry procedures, and controlling hazardous energy. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.5 credits (15 contact hours).
Components: Laboratory, Lecture
WG 1404(0.5)
Communicating Potential Hazard
Examines health related chemical and explosive hazards while emphasizing identification of hazard information from labels and material safety data sheets and methods used to work safely with toxic chemicals and hazardous materials. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture
WG 1501(0.5)
Gas-in-Air Mixture
Focuses on detecting the presence of and measuring the percent of gas in a gas-in-air mixture. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture
WG 1502(0.5)
Gas Leaks/Odors
Presents basic facts about natural gas and natural gas leaks with emphasis on responding to gas leak and odor calls. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture
WG 1503(0.5)
Underground Facilities
Presents techniques and procedures basic to locating and marking underground pipeline facilities. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture
WG 1504(0.5)
Health Unit Management
Presents health unit coordinator duties and responsibilities concerning confidentiality and legal and ethical issues. Pre-requisite: NAA 1021 Lecture: 1 credit (15 contact hours).
Components: Lecture
WG 1505(0.5)
Health Unit Coordinating
Presents communication skills and safety duties and responsibilities of the health unit coordinator. Lecture: 1 credit (15 contact hours).
Components: Lecture
WG 1506(0.5)
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
WG 1507(0.75)
Safe Working Environment
Emphasizes work safety practices, proper use of equipment, hazards of escaping gas, and drug testing and rehabilitation programs. Lecture: 0.25 credits (3.75 contact hours); Laboratory: 0.5 credits (15 contact hours).
Components: Laboratory, Lecture
NGT 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 the theory used when establishing a gas service with emphasis piping from the main to customer’s piping, piping inside buildings, and gas-operated equipment in service. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 1602(0.75) Course ID:006470
Odorant Levels
Presents federal and Kentucky standards for proper odorant levels with emphasis on monitoring odorant levels. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 1603(0.75) Course ID:006471
Installing Domestic Service
Presents US Department of Transportation and industry-recognized procedures for installing domestic gas service. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 1604(0.75) Course ID:006472
Purging Techniques
Presents the theory and techniques common to purging natural gas lines, including safe practices and isolation of equipment during purging. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 1701(0.5) Course ID:006473
Gas-Operated Appliances
Presents procedures for checking natural gas appliance systems to ensure proper installation and safe operation. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1702(0.5) Course ID:006474
Servicing Gas Equipment
Presents factors related to the ventilation process, standards to ensure proper combustion and ventilation for gas-operated equipment, and ventilation inspection of gas-operated equipment. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 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 basis for troubleshooting electrical control circuits in gas-operated appliances with emphasis on reading electrical circuit diagrams and their physical arrangement in the appliance. Lecture: 0.25 credits (3.75 contact hours), Lab: 1 credit (30 contact hours).
Components: Laboratory, Lecture

NGT 1801(0.5) Course ID:006477
Installing Mains & Lines
Presents practices basic to installing gas mains and service lines with emphasis on safety, standards, and line-marking. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1802(0.5) Course ID:006478
Pipeline Installation
Examines the preparation of the pipeline right-of-way and the completion of the construction operation; presents the major phases of the inspection process. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NGT 1803(0.5) Course ID:006479
Joining Plastic Pipe
Presents the material specifications and installation practices for polyethylene pipe, joining plastic pipe with mechanical fittings, and identification of methods to control static electricity. Lecture: 0.25 credits (7.5 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1804(0.75) Course ID:006480
Plastic Pipe & Heat Fusion
Presents the theory of heat fusing polyethylene pipe and the specification and conditions required to produce an acceptable joint. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1805(0.5) Course ID:006481
Permanent Field Repairs
Presents common methods and installation practices used to make field repairs on gas piping facilities and natural gas pipelines. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1806(0.25) Course ID:006482
Joining Copper Pipe
Presents materials and techniques for joining copper pipe/tubing. Lecture: 0.25 credits (3.75 contact hours).
Components: Lecture

NGT 1901(0.5) Course ID:006483
Maintaining Line Valves
Presents basic design characteristics and maintenance procedures for pipeline valves. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NGT 1902(0.5) Course ID:006484
Pressure Relief Valves
Presents components and operating characteristics of typical pressure relief valve installations; emphasizing spring-operated and pilot-operated pressure relief valves; focuses on factors to consider when installing pressure relief valves. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NGT 1903(0.5) Course ID:006485
Abandon/Deactivate Facilities
Presents processes and procedures for deactivating/abandoning gas fared equipment. 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 Piping
Presents techniques basic to piping 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 dispersive 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(0.5) Rectifiers
Presents information and techniques for putting cathodic protection rectifiers into service. Lecture: 0.5 credits (7.5 contact hours) Lab: 0.5 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 2201(0.5) 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) Maintaining Line Valves
Presents the basic operating principles and maintenance schedules of gas 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) Pipe Line Heaters
Presents the operation procedures and maintenance of catalytic and water bath indirect pipe line heaters. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NGT 2204(0.5) 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) 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: 0.26 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2301(0.5) 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) 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) Pressure Relief Valves
Presents purpose and operating characteristics of pressure relief valves; emphasizes inspecting, testing and maintenance of relief valves. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2306(0.5) Recording Charts
Presents basic technology used to transfer information to a recording chart; emphasizes how to change, interpret, and send charts. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.20 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2401(0.5) 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) 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) Test Pressure Limits
Presents the concepts and principles basic to test relief valves and pressure limiting and regulating stations. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2404(0.5) Differential Pressure Recorder
Presents information and procedures for maintaining and calibrating differential pressure recorders. Lecture: 0.25 credits (7.5 contact hours).
Components: Lecture

NGT 2405(0.5) 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

NGT 2406(0.5) Multiple Range Pressure Chart
Presents concepts and principles basic to reading multiple range pressure recording charts. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NIP 116(10) 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. Uses the Neuman’s Systems Model to provide care for clients by incorporating the core values of caring, diversity, excellence, integrity, ethics, holism, and client-centeredness. Examines the patient’s needs, health promotion, therapeutic communication, treatment modalities, concepts of mental health and assessment of clients with psychosocial problems. Introduces skills related to mental health care, such as areas of adaptive/ maladaptive behaviors and specific mental health disorders in a variety of health care settings. Introduces dosage calculations and medication administration of commonly used medications. Examines 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 Aid Registry. Completion, with “C” or better. BIO 110, 127, EHY 110, 127; Biologic Life Support Certification, current liability insurance coverage and current immunizations for the duration of the course. Co-requisite: NIP 103. Pre-requisite or Co-requisite: BIO 139. Lecture: 7.0 credits (105 contact hours). Clinical: 3.0 credits (135 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Digital Literacy, Technical

NIP 129(10) Nursing Care Across the Lifespan
Focuses on care of clients across the lifespan with stressors to normal lines of defense in hematology, immune, inflammatory, fluid and electrolyte/acid/base imbalance, respiratory, musculoskeletal, cardiovascular, gastrointestinal/hepatobiliary, renal/urinary, neurological/sensory and endocrine and reproductive health. Included is nursing care throughout pregnancy and the postpartum period, as well as nursing care of the normal newborn and the childbearing family. Integrates the concepts of nursing practice: context and environment, knowledge and science, personal/professional development, quality and safety, relationship-centered care, and teamwork. Uses the Neuman’s Systems Model to provide care for clients by incorporating the core values of caring, diversity, excellence, integrity, ethics, holism, and patient-centeredness. Examines the patient’s needs, health promotion, various treatment modalities, and nursing interventions through clinical experience and theory application. Pre-requisite: Completion with a grade of “C” or better in NIP 103, NIP 116, BIO 139; Student must have Basic life support certification, current liability insurance coverage and current immunizations for the duration of the course. Pre-requisite or Co-requisite: AHS 100. Lecture: 7 credits (105 contact hours) Laboratory: 3 credit hours (135 contact hours).
Components: Laboratory, Lecture
Attributes: Digital Literacy, Technical

NIP 129(11) Nursing Care Across the Lifespan
Focuses on care of patients across the lifespan with stressors to normal lines of defense in hematology, immune, inflammatory, fluid and electrolyte/acid/base imbalance, respiratory, musculoskeletal, cardiovascular, gastrointestinal/hepatobiliary, renal/urinary, neurological/sensory and endocrine and reproductive health. Included is nursing care throughout pregnancy and the postpartum period, as well as nursing care of the newborn and the childbearing family. Integrates the concepts of nursing practice: context and environment, knowledge and science, personal/professional development, quality and safety, relationship-centered care, and teamwork. Uses the Neuman’s Systems Model to provide care for patients by incorporating the core values of caring, diversity, excellence, integrity, ethics, holism, and patient-centeredness. Examines the patient’s needs, health promotion, various treatment modalities, and nursing interventions through clinical experience and theory application. Pre-requisite: Completion with a grade of “C” or better in NIP 103, NIP 116; Student must have Basic life support certification, current liability insurance coverage and current immunizations for the duration of the course. Pre-requisite or Co-requisite: AHS 100. Lecture: 7.5 credits (112.5 contact hours). Laboratory: 3.5 credits (157.5 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Technical
NIP 140(6) Course ID:005435
Practical Nursing Role Transition
Prepares students to assume the role of graduate practical nurse. Promotes clinical judgment, delegation and collaboration in the provision of safe, ethical, holistic patient centered care. Explores healthcare management systems and employment seeking skills as students begin to develop a professional identity. Includes a clinical practicum in a health care facility utilizing the nursing process and evidence-based information in delivering clinically competent care. Pre-requisite: Completion with a grade of "C" or better in NIP126. Students must have Basic Life Support certification, current liability insurance coverage and current immunizations for the duration of the course. Lecture: 2.0 credits (30 contact hours). Clinical: 4.0 credits (180 contact hours).
Components: Clinical, Lecture
Attributes: Digital Literacy, Course Also Offered in Modules, Technical

NIP 212(10) Course ID:016117
Advanced Medical Surgical Nursing
Focuses on advanced assessment of diverse individuals throughout the lifespan by incorporating the integrating concepts of nursing practice: context and environment, knowledge and science, personal/professional development, quality and safety, relationship-centered care, and teamwork. Utilizes the nursing process in care and management of complex medical health care needs and disorders of self-defense/protection: skin, hair and nails, cancer, immune system, hematomal system, cardiovascular system, respiratory system, endocrine system, gastrointestinal system, reproductive system, renal system, nervous system, and musculoskeletal system across the lifespan. Pre-requisite: Completion with grade of "C" or better in NIP 126 or successful completion of a Practical Nursing program curriculum and proof of active unencumbered Kentucky or Compact State Practical Nurse License. Students must have Basic Life Support certification, current liability insurance coverage and current immunizations for the duration of the course. Pre-requisite or Co-requisite: Quantitative Reasoning to meet the AA or AS requirement. Lecture: 7 credits (105 contact hours). Clinical: 3 credits (135 contact hours).
Components: Clinical, Lecture
Attributes: Digital Literacy, Technical

NIP 216(9) Course ID:017604
Leadership and Transition to Practice
Prepares the student in the Associate Degree Nursing Program to assume the role of a graduate nurse in the synthesis of knowledge and daily living throughout the lifespan by incorporating the integrating concepts of 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, teamwork, diversity and caring. Integrates theories and concepts from all nursing courses and provisions for practice in predominantly health care settings. Emphasizes prevention of illness, maintenance of health, and the restoration of wellness of individuals, families, and communities. Utilizes management skills and techniques in the delivery of patient-centered nursing care to facilitate the role transition from student to professional nurse. Utilizes simulation and clinical experiences for students to gain knowledge in important nursing leadership areas in order to benefit the nurse in the transition to practice. Pre-requisite: Completion with a grade C or better in NIP 212 and Quantitative Reasoning (must meet AA or AS requirements). Students must have Basic Life Support certification, current liability insurance coverage and current immunizations for the duration of the course. Pre-requisite or Co-requisite: Heritage/Humanities. Lecture: 5 credits (75 contact hours), Lab/Clinical: 4 credits (180 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Digital Literacy, Technical

NIP 220(2) Course ID:016095
Advanced Cardiac & Emergent Care
Focuses on administration of care for acute cardiovascular emergencies including cardiac arrest, acute myocardial infarction, and stroke. Prepares students to participate in emergency situations of patients highlighting the importance of team dynamics and communication, systems of care, and immediate post-cardiac-arrest care. Educates students on airway management and related pharmacology. Students demonstrating essential knowledge and skills, obtaining 85% or greater on the written exam, and successfully completing the megacode will receive an American Heart Association ACLS provider card. Pre-requisite: Completion with grade of "C" or better in NIP 211 and MAT 150. Students must have Basic Life Support certification. Co-require: NIP 215. Lecture: 0.5 credits (7.5 contact hours). Lab: 1.5 credits (67.5 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

NPN 100(2) Course ID:004021
Introduction to Nursing & Health Care System
Includes a historical overview of current health care including medical economics, ethical and legal parameters, roles and responsibilities of health care team members with an emphasis on reflective nursing practice. Explores medical terminology, therapeutic communication techniques, concepts of health, health assessment, self-care and basic needs related to activities of daily living across the lifespan. Pre-requisite: Admission to Practical Nursing program AND CPR for Health Care Providers certification to be maintained throughout enrollment in the program AND [NAA 100 or equivalent) within the past three years OR active status on the Medicaid Nurse Aide Registry] AND Digital Literacy as defined by KCTCS. Pre-requisite or Co-requisite: [BIO 135 or BIO 139], if prerequisite, a grade of "C" or greater must be achieved OR Consent of PN Coordinator. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

NPN 101(6) Course ID:005727
Nursing Fundamentals
Provides a historical overview of health care system and roles and responsibilities of members of the health care team. Emphasizes practical nursing and the nursing process in the context of Gordon's Functional Health Patterns and Maslow's hierarchy of needs as related to clients throughout the life span. Covers functional nursing skills including therapeutic communication techniques; nursing assessment; nursing process and care planning; charting; legal and ethical parameters of health care; rest and sleep; body mechanics and introductory content on the surgical experience. Pre-requisite: Admission to Practical Nursing program AND CPR for Health Care Providers certification to be maintained throughout enrollment in the program AND [(NAA 100 or equivalent) within the past three years OR active status on the Medicaid Nurse Aide Registry] AND Digital Literacy as defined by KCTCS. Pre-requisite or Co-requisite: [BIO 135 or BIO 139], if prerequisite, a grade of "C" or greater must be achieved OR Consent of PN Coordinator. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

NPN 105(6) Course ID:004022
Development of Care Giver Role
Introduces nursing and the nursing process as related to client activities of daily living across the life span. Provides an opportunity to develop and practice psychomotor skills related to health assessment, promotion, maintenance, and illness prevention. Pre-requisite: Admission to Practical Nursing program AND CPR for Health Care Providers certification to be maintained throughout enrollment in the program AND [NAA 100 or equivalent) within the past three years OR active status on the Medicaid Nurse Aide Registry] AND Digital Literacy as defined by KCTCS. Pre-requisite or Co-requisite: [(BIO 135 or BIO 139), if prerequisite, a grade of "C" or greater must be achieved] OR Consent of PN Coordinator. Lecture: 3.0 credits (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

NPN 106(6) Course ID:005527
Fundamentals of Nursing Care
Provides a historical overview of health care system and roles and responsibilities of members of the health care team. Emphasizes practical nursing and the nursing process in the context of Maslow's hierarchy of needs as related to client daily living across the life span. Covers fundamental nursing skills including therapeutic communication techniques; nursing assessment; nursing process and care planning; charting; legal and ethical parameters of health care; rest and sleep; body mechanics and introductory content on the surgical experience. Pre-requisite: Admission to Practical Nursing program AND CPR for Health Care Providers certification to be maintained throughout enrollment in the program AND [(NAA 100 or equivalent) within the past three years OR active status on the Medicaid Nurse Aide Registry] AND Digital Literacy as defined by KCTCS. Pre-requisite or Co-requisite: [BIO 135 or BIO 139], if prerequisite, a grade of "C" or greater must be achieved. Lecture: 4 credit hours (60 contact hours), Lab/Clinical: 2 credit hours (90 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Digital Literacy, Course Also Offered in Modules, Technical

NPN 108(3) Course ID:005628
Pharmacology 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 routes: oral, sublingual, rectal, topical, intradermal, intramuscular, subcutaneous, intravenous including IV fluid administration skills. Emphasizes nursing responsibility, accountability, and application of nursing process to drug therapy. Pre-requisite: Admission to Practical Nursing program AND CPR for Health Care Providers certification to be maintained throughout enrollment in the program AND [(NAA 100 or equivalent) within the past three years OR active status on the Medicaid Nurse Aide Registry] AND Digital Literacy as defined by KCTCS. Pre-requisite or Co-requisite: [BIO 135 or BIO 139], if prerequisite, a grade of "C" or greater must be achieved. Lecture: 2.0 credits (30 contact hours). Laboratory: 1.0 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

NPN 110(2) Course ID:004023
Pharmacology I
Introduces techniques used to administer medications. Includes dosages, diagnostic studies, related medical therapies, and legal responsibilities. Pre-requisite: Admission to Practical Nursing program AND CPR for Health Care Providers certification to be maintained throughout enrollment in the program AND [NAA 100 or equivalent) within the past three years OR active status on the Medicaid Nurse Aide Registry] AND Digital Literacy as defined by KCTCS. Pre-requisite or Co-requisite: [(BIO 135 or BIO 139), if prerequisite, a grade of "C" or greater must be achieved] OR Consent of PN Coordinator. Lecture: 1.0 credit (15 contact hours), Lab/Clinical: 1.0 credit (45:1 ratio/45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
NPN 111(3) Course ID:005728
Pharmacology
Admission to Practical Nursing program AND CPR for Health Care Providers certification to be maintained throughout enrollment in the program AND [NPA 100 or equivalent] within the past three years OR active status on the Medicaid Nurse Aide Registry AND Digital Literacy as defined by KCTCS. Pre-requisite: Admission to Practical Nursing program AND CPR for Health Care Providers certification to be maintained throughout the program AND [NPA 100 or equivalent] within the past three years OR active status on the Medicaid Nurse Aide Registry AND Digital Literacy as defined by KCTCS. Pre-requisite: Admission to Practical Nursing program AND CPR for Health Care Providers certification to be maintained throughout the program AND [NPA 100 or equivalent] within the past three years OR active status on the Medicaid Nurse Aide Registry AND Digital Literacy as defined by KCTCS. Pre-requisite: Admission to Practical Nursing program AND CPR for Health Care Providers certification to be maintained throughout the program AND [NPA 100 or equivalent] within the past three years OR active status on the Medicaid Nurse Aide Registry. Minimum C grade. Lecture: 2 credits (30 contact hours). Lab/Clinical: 1 credit (45 contact hours).

Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

NPN 125(3) Course ID:004025
Mental Health
Applies nursing process to clients experiencing common mental health problems with emphasis on assisting clients to cope with psychological problems throughout the life span i.e., chemical dependency, violence and other stress and developmental problems related to mental health. Pre-requisite: Pathway 1: (NPN 100 and NPN 105 and NPN 110) and (BIO 135 or BIO 139) or Consent of PN Coordinator. Minimum C grade. Pre-requisite Or Co-requisite: Pathway 2: (NPN 101 and NPN 111 and (BIO 135 or BIO 139) and (AHS 115 or AHS 115 or OST 103 or CLA 131). If prerequisite, a grade of “C” or greater must be achieved.) Pathway 3: (NPN 106 and NPN 108 and BIO 139) If prerequisite, a grade of “C” or greater must be achieved. Lecture: 2 credits (30 contact hours). Lab/Clinical: 1 credit (45 contact hours).

Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

NPN 130(3) Course ID:004026
Pharmacology II
Identify common drugs by classification and effects with emphasis on responsibility, accountability, and application of the nursing process to drug therapy. Pre-requisite: (NPN 100 and NPN 105 and NPN 110 and (BIO 135 or BIO 139) or Consent of PN Coordinator). Minimum “C” grade. Lab/Clinical: 1.0 credit (45 contact hours).

Components: Clinical, Laboratory, Lecture
Attributes: Technical

NPN 135(6) Course ID:004027
Introduction to Health Deviation
Applies the nursing process to selected child/adult clients experiencing common health deviations interfering with activities of daily living; emphasis is on the nurse as the provider of care. Pre-requisite: Pathway 1: (NPN 100 and NPN 105 and NPN 110 and (BIO 135 or BIO 139) or Consent of PN Coordinator). Minimum “C” grade. Pathway 2: (NPN 101 and NPN 111 and NPN 115 and (BIO 135 or BIO 139) and (AHS 115 or AHS 115 or OST 103 or CLA 131). Minimum “C” grade. Lecture: 3.0 credits (45 contact hours); Lab/Clinical: 3.0 credit (45.1 ratio/135 contact hours).

Components: Clinical, Laboratory, Lecture
Attributes: Technical

NPN 140(3) Course ID:005629
Nursing Care I
Applies nursing process to selected child/adult clients experiencing common health deviations related to interferences with activities of daily living and/or interruption of body structure and function related to surgical interferences. Pre-requisite: (NPN 106 and NPN 108 and BIO 139). Minimum “C” grade. Pre-requisite or Corequisite: (NPN 125 and NPN 201). If prerequisite, a grade of “C” or greater must be achieved. Lecture: 2 credits (30 contact hours). Lab/Clinical: 1 credit (45 contact hours).

Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules

NPN 200(5) Course ID:004028
Med Surg I
Applies nursing process to selected child/adult clients experiencing common health deviations interfering with activities of daily living with emphasis on the nurse as the provider care. Pre-requisite: (NPN 125 and NPN 130 and NPN 135 and NPN 201) or Consent of PN Coordinator. Minimum C grade. Lecture: 3 credits (45 contact hours). Lab/Clinical: 2 credits (90 contact hours).

Components: Clinical, Laboratory, Lecture
Attributes: Technical

NPN 201(3) Course ID:004024
Child Bearing Family
Applies nursing process to childbearing families with focus on health promotion and common health alterations in the reproductive process. Pre-requisite: Pathway 1-[NPN 100 and NPN 105 and NPN 110] and (BIO 135 or BIO 139) and (AHS 115 or Consent of PN Coordinator). Minimum “C” grade. Pre-requisite or Co-requisite: Pathway 2-[NPN 106 and NPN 108 and BIO 139] Minimum “C” grade. Lecture: 2 credits (30 contact hours). Lab: 1.0 credit (45 contact hours).

Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

NPN 202(6) Course ID:005729
Med-Surg I Alterations
Applies nursing process to selected child/adult clients experiencing common health deviations related to metabolic dysfunctions, fluid and electrolyte imbalances, cardiovascular dysfunctions, and cellular deviations that interfere with activities of daily living with emphasis on the nurse as the provider of care. Pre-requisite: (NPN 101 and NPN 111 and BIO 135 or BIO 139) and (AHS 115 or AHS 120 or CLA 131 or MIT 103) Minimum “C” grade. Pre-requisite or Co-requisite: NPN 135. If prerequisite, a grade of “C” or greater must be achieved. Lecture: 4 credits (60 contact hours). Lab/Clinical: 2.0 credits (90 contact hours).

Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

NPN 205(5) Course ID:004029
Med Surg II
Applies the nursing process to child/adult clients experiencing more complex health alterations; the focus is on multi-system failure, fluid and electrolytes, neurological problems, and cellular deviation. Pre-requisite: NPN 201. All courses must be achieved with a grade of “C” or higher. Lecture: 3.0 credits (45 contact hours); Lab/Clinical: 2.0 credits (90 contact hours/45:1 ratio).

Components: Clinical, Laboratory, Lecture
Attributes: Technical

NPN 206(5) Course ID:005730
Med-Surg II Alterations
Applies nursing process to selected child/adult clients experiencing complex health issues related to multi-system failure, neurological disorders, coordination dysfunctions, and elimination problems that interfere with activities of daily living with emphasis on the nurse as the provider of care. Pre-requisite: (NPN 202 with a grade of “C” or greater) or Consent of PN Coordinator. Pre-requisite or Co-requisite: NPN 201. If prerequisite, a grade of “C” or greater must be achieved. Lecture: 4 credits (60 contact hours). Lab/Clinical: 2.0 credits (90 contact hours).

Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

NPN 208(10) Course ID:005630
Nursing Care II
Applies nursing process to selected child/adult clients experiencing common health deviations related to metabolic dysfunctions, complex cardiovascular dysfunctions, cellular deviations and complex health issues related to multi-system failure, neurological disorders, coordination dysfunctions, and elimination problems that interfere with activities of daily. Pre-requisite: BIO 137, BIO 139, NPN 106, NPN 108, and NPN 125 with a grade of “C” or greater. Pre-requisite or Co-requisite: NPN 140 and NPN 201 with a grade of “C” or better. Lecture: 6 credits (90 contact hours). Laboratory: 4 credits (180 contact hours).

Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

NPN 210(4) Course ID:004030
Clinical Practicum
Integrates the theoretical concepts learned throughout the program in application of this knowledge during the direct care of clients. Promotes critical thinking and problem solving skills during the nursing role performances of provider of care, manager of care, and member within the discipline. Pre-requisite: Pathway 1: NPN 205. Minimum “C” grade. Pathway 3: NPN 208. Minimum “C” grade. Pre-requisite or Co-requisite: Pathway 2: NPN 206. If prerequisite, a grade of “C” or greater must be achieved. Lecture: 1.0 credit (15 contact hours); Practicum: 3.0 credits (45:1 ratio/135 contact hours).

Components: Lecture, Practicum
Attributes: Digital Literacy, Course Also Offered in Modules, Technical

NPN 215(1)
Course ID:004125
Nursing Trends & Issues

Components: Clinical, Lecture
Attributes: Digital Literacy, Course Also Offered in Modules, Technical

NRS Nursing

NRS 101(9) Course ID:004332
Nursing Care I
Establishes the foundational knowledge for competency based nursing practice within the context of the contemporary health care delivery system by introducing the nursing process and basic nursing concepts as a framework for organizing care delivery. Introduces the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry and Quality and Safety Education for Nurses (QSEN). Applies problem-solving and critical thinking skills in the care of patients across the life span and of diverse cultures with actual or potential alterations in health due to common acute and chronic health problems. Includes the application of the nursing process to meet the needs of patients at the practical nursing level. Pre-requisite: Admission to the Nursing Program; Proof of active status on Kentucky Medicaid Nurse Aide Registry or its equivalent; BIO 137 and Quantitative Reasoning Course at AA/AS Level with a grade of “C” or better; PSY 110. Pre-requisite or Co-requisite: BIO 139 with a grade of “C” Pre-requisite: Admission to the Nursing Program; Proof of active status on Kentucky Medicaid Nurse Aide Registry or its equivalent. Lecture: 3 credits (45 contact hours). Laboratory: 2 credits (90 contact hours).

Components: Clinical, Laboratory
Attributes: Technical
NRS 102(10) Course ID:004333
Nursing Care II
Includes the application of problem-solving and critical thinking skills in the care of patients across the life span and of diverse cultures with actual or potential alterations in health due to common acute and chronic health problems. Provides care of patients during the childbearing cycle focusing on common health alterations in the reproductive process. Strengthens the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry and Quality and Safety Education for Nurses (QSEN) while higher level skills are introduced. Includes an integrated clinical practicum of direct patient care in a health care facility or health care organization to facilitate the transition from student role to LPN practice. Pre-requisite: NRS 101 with letter grade of "C" or better. Pre-requisite Or Co-requisite: ENG 101. Lecture: 5 credit hours (75 contact hours). Clinical: 5 credit hours (225 contact 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. Strengthens the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry and Quality and Safety Education for Nurses (QSEN). Orientates the student to the philosophy and organizing framework of the ADN Program and assists the practical nurse to make the role transition to registered nursing. Essential concepts and beginning problem-solving skills required for registered nursing practice are emphasized. Nineteen credit hours in nursing will be awarded upon successful completion of the course. Pre-requisite: Admission to nursing program; BIO 137, BIO 139, and Quantitative Reasoning Course at AA/AS Level with a grade of "C" or better; ENG 101, PSY 110. Lecture: 3 credit hours (45 contact hours).
Components: Lecture
Attributes: Technical

NRS 203(9) Course ID:004335
Nursing Care III
Applies problem-solving and critical thinking skills in the care of diverse patients/families across the life span with actual or potential alterations in health due to complex acute and chronic health problems. Emphasizes leadership, management concepts, clinical decision-making, knowledge, judgment, skills and professional values within a legal/ethical framework. Introduces the RN responsibilities in relation to the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry and Quality and Safety Education for Nurses (QSEN). Pre-requisite: NRS 102 with a grade of "C" or better. Pre-requisite Or Co-requisite: BIO 225 with a grade of "C" or better. Lecture: 5 credit hours (75 contact hours). Clinical: 4 credit hours (180 contact 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 competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry and Quality and Safety Education for Nurses (QSEN) with an emphasis on leadership, management, clinical decision-making, collaboration, knowledge, judgment, skills and professional values within a legal/ethical framework. Applies problem-solving and critical thinking skills in the care of diverse patients/families across the lifespan with actual or potential alterations in health due to complex acute and chronic health problems. Includes an integrated clinical practicum of direct patient care in a health care facility or health care organization to facilitate the transition from student role to RN practice.

NSG 100(3) Course ID:005269
Preparation for Nursing
Explores careers in the nursing profession. Includes career options and educational pathways, goal setting and self-awareness, tools/strategies for success in nursing programs, and trends impacting nursing’s future. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

NSG 101(8) Course ID:000568
Nursing Practice
Focuses on nursing practice within the context of the contemporary health care delivery system by introducing the nursing process and basic nursing concepts as a framework for organizing care delivery. Emphasizes foundational knowledge of nursing practice, skills acquisition, and the basic care of diverse patient populations. Introduces the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry and Quality and Safety Education for Nurses (QSEN). Pre-requisite: Admission to the Associate Degree Nursing Program, (BIO 137 and Quantitative Reasoning Course at AA/AS level) with a grade of "C" or better, PSY 110, and 75 hour nursing assistant course or its equivalent. Pre-requisite or Co-requisite: BIO 139 with a grade of "C" or better. Lecture: 5 credits (75 contact hours). Clinical: 4 credits (180 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Technical

NSG 106(9) Course ID:006179
Nursing One
Focuses on nursing practice within the context of the contemporary health care delivery system by introducing the nursing process and basic nursing concepts as a framework for organizing care delivery. Emphasizes foundational knowledge of nursing practice, skills acquisition, and the basic care of diverse patient populations with risk for or actual common chronic health pattern dysfunctions, introduction of the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry. Pre-requisite: Admission to the Associate Degree Nursing Program, (BIO 137 and Quantitative Reasoning Course at AA/AS level) with a grade of "C" or better; PSY 110, 75 hour nursing assistant course or its equivalent. Pre-requisite or Co-requisite: BIO 139 with a grade of "C" or better (within 10 years) and ENG 101. Lecture: 5 credits (75 contact hours). Clinical: 4 credits (180 contact hours).
Components: Clinical, Lecture
Attributes: Technical

NSG 195(4) Course ID:017319
Transition to ADN
Builds upon the basic nursing skills and concepts learned in the LVN/LPN experience. Assists the Practical Nurse to make the beginning transition to the RN role. Strengthens the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry and Quality and Safety Education for Nurses (QSEN). Emphasizes the concepts of nutrition, metabolism, endocrine, elimination, and integumentary. Sixteen credit hours in nursing will be awarded upon successful completion of the course. Pre-requisite: Admission to the Associate Degree Nursing Program and (BIO 137, BIO 139, and Quantitative Reasoning Course at AA/AS Level) with a grade of "C" or better, PSY 110, and ENG 101. Co-requisite: NSG 212 with a grade of "C" or better. Lecture: 3.5 credits (52.5 contact hours). Clinical: 0.5 credit (22.5 contact hours).
Components: Clinical, Lecture
Attributes: Technical

NSG 196(5) Course ID:006180
Nursing LPN Bridge Course
Builds upon the LVN/LPN experiences in application of core components of nursing. Focuses on nursing care for patients with mental health dysfunctions and patients experiencing acute and/or chronic health dysfunctions. Builds upon the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry. Covers selected content and skills from Nursing One and Nursing Two. Includes the role of the Associate Degree Nurse and application of the core components of nursing practice to patients experience. Pre-requisite: Licensed practical nurse with the board of nursing. BIO 137, BIO 139, Quantitative Reasoning at an AA/AS level or higher (all of these must be a "C" or better and within the last 10 years); PSY 110, ENG 101. Pre-requisite or Co-requisite: HST 121. Lecture: 4 credits (60 contact hours). Clinical: 1 credit (45 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

NSG 198(2) Course ID:005905
Accelerated Transition: PN-A.D.N Bridge
Provides an accelerated course designed for the LPN/LVN who demonstrates through competency assessment the ability to build upon previous learning and experience. Focuses on the beginning transition to the RN role, the acquisition of essential skills and the development of critical thinking, emphasizing the concepts of nutrition, metabolism, endocrine, elimination, and integumentary. Strengthens the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry and Quality and Safety Education for Nurses (QSEN). Sixteen credit hours in nursing will be awarded upon successful completion of the course. Pre-requisite: Admission to the Associate Degree Nursing Program and BIO 137, BIO 139, and Quantitative Reasoning Course at AA/AS Level with a grade of "C" or better, PSY 110, ENG 101, and a passing score on a national normed PN to RN mobility examination. Co-requisite: NSG 212 with a grade of "C" or better. Lecture: 1.5 credits (22.5 contact hours). Clinical: 0.5 credit (22.5 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Technical

NSG 206(9) Course ID:006181
Nursing Two
Includes the application of the core components of nursing to patients experiencing alterations in health. Focuses on nursing care for patients with mental health dysfunctions and patients experiencing acute and/or chronic health dysfunctions. Builds upon the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry. Pre-requisite: NSG 106 with a grade of "C" or better. Pre-requisite or Co-requisite: HST 121; Lecture: 5 credits (75 contact hours). Clinical: 4 credits (180 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 practice to the care of childbearing families. Illustrates the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry and Quality and Safety Education for Nurses (QSEN). Pre-requisites: NSG 219 and NSG 212 with a grade of "C" or higher, and ENG 101. Pre-requisite or Co-requisite: NSG 229 and BIO 225 with a grade of "C" or higher. Lecture: 2 credits (30 contact hours). Clinical: 1 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 core components of nursing practice to adult patients experiencing actual or potential alterations in mental health. Strengthens the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry and Quality and Safety Education for Nurses (QSEN). Pre-requisite: NSG 101 and BIO 139 with a grade of “C” or higher. Pre-requisite or Co-requisite: NSG 210 with a grade of “C” or higher, and ENG 101. Lecture: 2 credits (30 contact hours), Clinical: 1 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 practice to the care of the child and family. Validates the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry and Quality and Safety Education for Nurses (QSEN). Pre-requisite: NSG 101 and BIO 139 with a grade of “C” or higher. Pre-requisite or Co-requisite: NSG 210 with a grade of “C” or higher, and ENG 101. Lecture: 2 credits (30 contact hours), Clinical: 1 credit (45 contact hours).
Components: Clinical, Laboratory, Lecture Attributes: Technical

NSG 219(7) Course ID:087320
Medical Surgical Nursing I
Focuses on the application of the core components of nursing practice to adult patients experiencing actual or potential alterations in health. Strengthens the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry and Quality and Safety Education for Nurses (QSEN). Emphasizes the concepts of nutrition, metabolism, endocrine, elimination, and integumentary. Pre-requisite: NSG 101 and BIO 139 with a grade of “C” or better. Pre-requisite or Co-requisite: NSG 212 with a grade of “C” or better and ENG 101. Lecture: 4 credits (60 contact hours), Clinical: 3 credits (135 contact hours).
Components: Clinical, 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 better. Pre-requisite or Co-requisite: NSG 212 with a grade of “C” or better and ENG 101. Lecture: 1 credit (15 contact hours).
Components: Lecture Attributes: Technical

NSG 229(7) Course ID:017321
Medical Surgical Nursing II
Focuses on the application of the core components of nursing practice to adult patients experiencing actual or the potential for alterations in health. Illustrates the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry and Quality and Safety Education for Nurses (QSEN). Emphasizes the concepts of oxygenation, circulation, perfusion, and activity/exercise. Pre-requisite: NSG 219 and NSG 212 with a grade of “C” or higher and ENG 101. Pre-requisite or Co-requisite: NSG 211 and BIO 225 with a grade of “C” or higher. Lecture: 4 credits (60 contact hours), Clinical: 3 credits (135 contact hours).
Components: Clinical, Lecture Attributes: Technical

NSG 236(9) Course ID:006184
Nursing Three
Includes application of the core components of nursing to the care of childbearing and child-rearing families experiencing functional and dysfunctional alterations in health. Applies the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry. Pre-requisite: NSG 206 OR NSG 196 with a grade of “C” or better. Pre-requisite or Pre-requisite: BIO 225 (within 10 years) with a grade of “C” or better. Lecture: 5 credits (75 contact hours), Clinical: 4 credits (180 contact hours).
Components: Clinical, Laboratory, Lecture Attributes: Course Also Offered in Modules, Technical

NSG 239(6) Course ID:005914
Medical/Surgical Nursing III
Focuses on the application of the core components of nursing practice to adult patients experiencing actual or the potential for alterations in health. Validates the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry and Quality and Safety Education for Nurses (QSEN). Emphasizes the concepts of: neurological, eyes/ears, immune/cancer, multiple systems organ failure, and disaster planning. Role transition is addressed and emphasizes leadership, management of care, skill development and professionalism. NSG 239 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 229 and NSG 211 and BIO 225 with a grade of “C” or better. Pre-requisite or Co-requisite: NSG 213 with a grade of “C” or better and Heritage/Humanities. Lecture: 3 credits (45 contact hours), Clinical: 3 credits (135 contact hours).
Components: Clinical, Laboratory, Lecture Attributes: Technical

NSG 246(9) Course ID:006185
Nursing Four
Emphasizes the development of the nurse as a provider of care, manager of care, and member of the nursing profession. Provides for the application of critical thinking skills in the care of diverse patients/families across the lifespan with actual or potential alteration in health due to complex acute and chronic health problems. Includes an integrated practicum with an emphasis on leadership, management, clinical judgment, collaboration, knowledge, skills, and professional values within the legal/ethical framework to facilitate the transition of the student to Registered Nurse practice. Pre-requisite: NSG 236 with a grade of “C” or better. Pre-requisite or Co-requisite: NSG 213 and Heritage/Humanities and Foreign Language. Lecture: 5 credits (75 contact hours), Laboratory/Clinical: 4 credits (180 contact hours, 45:1 ratio).
Components: Clinical, Laboratory, Lecture Attributes: Course Also Offered in Modules, Technical

NSG 298(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 instructor; courses may be repeated with different topics to a maximum of six credit hours during one academic year. Lecture: Varies by topic; Laboratory: Varies by topic. Pre-requisite: Consent of instructor.
Components: Laboratory, Lecture Attributes: Technical

ORP 100(2) Course ID:017590
Introduction to Orthotics and Prosthetics
Introduces students to the professions of orthotics and prosthetics. Emphasizes professional practice, the role of the technician and career opportunities. Introduces students to basic mechanical skills and knowledge via laboratory project to determine if orthotics and prosthetics is a career path they would like to follow. Lecture: 1 credit (15 contact hours). Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical
ORP 106(3) Course ID: 017596
Orthotic and Prosthetic Skill Development
Provides the necessary skills to perform basic technological processes within the profession of orthotics and prosthetics. Emphasizes basic skills such as plaster work, plastic fabrication including thermosetting and thermoformed, introduces concepts of metal contouring, leather working including sewing concepts, and finishing skills. Reviews vertical fixture, shoe machines, routers and various other machines and tools specific to orthotic and prosthetic fabrication. Reviews laboratory safety and material safety. Pre-requisite: ORP 100 and admission to the Orthotics and Prosthetics Program. Lecture: 1 credit (15 contact hours). Laboratory: 2 credits (60 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

ORP 107(2) Course ID: 017597
Orthotic Prosthetic Biomaterials
Provides the necessary knowledge of materials utilized in prosthetic and orthotic fabrication. Emphasizes characteristics of materials and their application in fabrication techniques utilized in the orthotic prosthetic laboratory. Introduces use of sheet plastics and thermosetting plastics for various layups and fibers. Pre-requisite: ORP 100 and admission to the Orthotics and Prosthetics Program. Lecture: 1 credit (15 contact hours). Laboratory: 1 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

ORP 108(2) Course ID: 017598
Introduction to Orthotics and Prosthetics
Provides the student with the knowledge and skills to design a safe and efficient prosthetic orthotic laboratory. Reviews the process of managing the areas of orthotic and prosthetic practice including administrative documentation. Pre-requisite: ORP 100 and admission to the Orthotics and Prosthetics Program. Lecture: 1 credit (15 contact hours). Laboratory: 1 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

ORP 195(4) Course ID: 017599
Clinical Experience I
Familiarizes students with the profession of orthotics and prosthetics by applying knowledge and skills in the work setting. Emphasizes work experience with the fabrication of orthoses and/or prostheses while practitioners in the field mentor students as they perform required tasks described in the clinical affiliation agreement. Pre-requisite: ORP 100 and admission to the Orthotics and Prosthetics Program. Clinical: 4 credits (120 contact hours).

Components: Clinical
Attributes: Technical

ORP 200(4) Course ID: 017600
Transradial Prosthetics
Provides students with the knowledge and skills necessary to fabricate transradial prostheses. Introduces impression procedures, interface materials, foot and ankle mechanisms, alignment and transradial design variations. Pre-requisite: ORP 100 and admission to the Orthotics and Prosthetics Program. Lecture: 2 credits (30 contact hours). Laboratory: 2 credits (60 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

ORP 201(4) Course ID: 017601
Transfemoral Prosthetics
Provides students with the knowledge and skills necessary to fabricate transfemoral prostheses. Introduces impression procedures, interface materials, foot and ankle mechanisms, alignment and transfemoral design variations. Pre-requisite: ORP 100 and admission to the Orthotics and Prosthetics Program. Lecture: 2 credits (30 contact hours). Laboratory: 2 credits (60 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

ORP 202(4) Course ID: 017602
Transradial and Transhumeral Prostheses
Provides students with the knowledge and skills necessary to fabricate transradial and transhumeral prostheses. Introduces impression procedures, interface materials, cable systems, alignment and variations of transradial and transhumeral prostheses. Pre-requisite: ORP 100 and admission to the Orthotics and Prosthetics Program. Lecture: 2 credits (30 contact hours). Laboratory: 2 credits (60 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

ORP 203(3) Course ID: 017603
Advanced Techniques
Familiarizes students with current technology developments in the field of orthotics and prosthetics. Reviews computer-aided design and manufacturing, advanced component and material design, pathologic gait deviations and technology solutions as well as patient outcome measurement tests. Pre-requisite: ORP 100 and admission to the Orthotics and Prosthetics Program. Lecture: 1 credit (15 contact hours). Laboratory: 2 credits (60 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

ORP 295(4) Course ID: 017605
Clinical Experience II
Reinforces student familiarity with the profession of orthotics and prosthetics by applying knowledge and skills in the work setting. Develops additional work experience with the fabrication of orthoses and/or prostheses as students are mentored by practitioners in the field to perform required tasks as described in the clinical affiliation agreement. Pre-requisite: ORP 100, ORP 195, and in good standing in the Orthotics and Prosthetics Program. Clinical: 4 credits (120 contact hours).

Components: Clinical
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 develop an introductory level of skill producing standard business documents using a word processing program with speed and accuracy. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

OST 105(3) 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 of life 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: 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
Word Processing Applications
Provides experience in word processing including the mastery of touch typing with speed and accuracy using industry standard software. Pre-requisite: RDG 020 and Consent of Instructor (OST 101 equivalent skills). Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

OST 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 short and long term financial planning along with interpretation of financial information. Careers in the financial industry discussed. Lecture: 3 credits (45 contact hours).

Components: Lecture

OST 150(3) Course ID: 003771
Transcription and Office Technology
Produce usable business documents from machine dictation using word processing software, with emphasis on spelling, punctuation, and grammar. Proofreading and editing applications stress the importance of accuracy and quality of document creation and production. Demonstration of office machines will be incorporated. Lecture: 3 hours; Laboratory: 0. Pre-requisite: ENG 101 or Permission of Instructor and OST 110.

Components: Lecture
Attributes: Technical

OST 168(3) Course ID: 003772
Records and Database Management
Presents aspects of the management of records from creation to disposal, using database software to create and edit files and prepare reports. 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 utilized in an office. Pre-requisite: OST 110. Lecture: 3.0 credit hours. (45 contact hours).

Components: Lecture
Attributes: Technical

OST 215(3) Course ID: 003774
Office Procedures
Studies the practices and procedures of current office concepts with emphasis given to the electronic office including: job application procedures, human relations in the office, business ethics, decision-making skills, travel and meeting arrangements, time and stress management, incoming/outgoing mail processes, and telephone procedures. Pre-requisite Or Co-requisite: OST 110. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical
Office Management Principles
Includes introductory management principles and techniques for the modern business office. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

OST 275/(0.5) 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: 0.5 credit (7.5 contact hours).
Components: Lecture

OST 275(1) 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: 1 credit (15 contact hours).
Components: Lecture

OTA 101(3) Course ID: 006868
Introduction to Occupational Therapy
Introduces the profession of occupational therapy by examination of history, philosophy, and theoretical foundations. Examines roles of Occupational Therapist (OT) and Occupational Therapy Assistant (OTA) with respect to education, credential, employment settings, and ethics. Outlines usage of Occupational Therapy Practice Framework, medical terminology, group dynamics, and communication skills. Pre-requisite: Completion of ENG 101 with a “C” or better and consent of instructor. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture Attributes: Technical

OTA 113(2) Course ID: 006869
Applied Anatomy and Kinesiology
Studies the musculoskeletal and nervous systems of the human body in relationship to movement and function. Emphasizes the upper extremity and shoulder girdle. Focuses on innervation of muscles, muscle grouping for function, and common problems seen when these systems are affected by disease/injury. Introduces the analysis of movement in specific life tasks. Uses the goniometer for joint measurement, manual muscle testing for strength, and promotes familiarity with the terms and techniques used in assessing motor function. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

OTA 115(2) Course ID: 006861
Skills and Interventions I
Develops the basic foundational principles/applications of occupational therapy, such as the concept of basic needs, therapeutic interventions, techniques, applications, analysis, safety, and adaptive skill development as the basics of an individual’s occupational performance. Provides explanation and introductory lab practice of the occupational therapy assistant elements. Pre-requisite: Admission to OTA program and permission of instructor. Co-requisite: OTA 267 OR OTA 277. Lecture/Lab: 2.0 credits (60 contact hours).
Components: Lecture Attributes: Technical
OTA 116(2) Course ID:006882
Media Principles and Procedures I
Develops skills in planning, implementing and evaluating occupational therapy for individuals experiencing deficits in occupational performance through the analysis of human occupation and subsequent methods of remediating, compensating, grading, and/or modifying activities and environments for optimal occupational performance. Develops communication skills necessary for documentation and patient interaction. Focuses on appropriate treatment and need for awareness of ethnic, cultural, and socio-economic factors that impact individuals. Provides opportunities for students to develop skills in activity analysis, functional mobility, therapeutic crafts, and modalities. Pre-requisite: Admission to OTA program and permission of instructor. Lecture: 2.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

OTA 216(2) Course ID:006884
Media Principles and Procedures II
Provides students the opportunity to apply skills in evaluating and planning occupational therapy for individuals experiencing deficits in occupational performance in a safe and efficient manner. Develops assessment skills in order to plan appropriate treatments applicable to deficits in occupational performance, including fabrication of orthotics and adaptive equipment and techniques. Develops communication skills necessary for documentation and patient interaction. Provides opportunities for students to develop skills in assessment, adaptations, orthotics and appropriate treatment with awareness of ethnic, cultural, and socio-economic factors that impact individuals. Pre-requisite: Admission to OTA program and permission of instructor. Lab: 2.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

OTA 125(2) Course ID:006883
Assistive Technology and Documentation
Presents various methods of documentation used in occupational therapy settings for evaluation, intervention, justification of payment for equipment, discharge, and other client records, and requirements of third party payers. Explores assistive technology to facilitate knowledge in a broad range of devices, services, strategies, and practices conceived to improve the quality of life and decrease the problems faced by individuals. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

OTA 126(1)
Level IIA Fieldwork
Provides the opportunity to observe and participate in various settings appropriate to occupational therapy service but not necessarily within a therapy department or under an occupational therapy professional. Provides opportunities to develop entry-level skills in the occupational therapy process with hands-on interaction as appropriate. Encourages development of professional behaviors and effective communication skills. Pre-requisite: Admission to OTA program and permission of instructor. Clinical: 1.0 credit (60 contact hours).
Components: Clinical
Attributes: Technical

OTA 136(4) Course ID:006871
Physical Dysfunction
Includes study of physical conditions commonly seen by Occupational Therapy, including diagnoses, instruction on treatment modalities. Introduces practice models to guide treatment applications, including procedures for multiple conditions in physical dysfunction. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 4.0 credits (120 contact hours).
Components: Lecture
Attributes: Technical

OTA 146(3) Course ID:006872
Occupational Therapy in Mental Health
Presents typical and dysfunctional behavior using the occupational therapy process as it pertains to mental health practice settings. Explores alternative methods and settings for mental health practice. Covers training and practice in interpersonal skills necessary for effective communication with clients, families, significant others, other health care professionals, and the public. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 3.0 credits (75 contact hours).
Components: Lecture
Attributes: Technical

OTA 206(2) Course ID:006873
Community Practice
Explores the current and emerging practice areas of occupational therapy in the immediate and future needs. Focuses on occupation-based practice, holistic, wellness, and prevention models applied throughout the lifespan. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (60 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 concept of occupational therapy throughout the life span employing a holistic approach to intervention. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

OTA 267(5) Course ID:007410
Level IIA Fieldwork
Provides opportunity to function in various clinical settings under supervision of experienced occupational therapy practitioner. Promotes collaboration with the Occupational Therapist in planning/implementation of treatment programs with clients with a variety of diagnoses and ages. Cultivates skills necessary to function at entry-level of practice through the first of two successive fieldwork rotations in unique healthcare settings/institutions. Pre-requisite: Admission to the Occupational Therapy Assistant Program or permission of instructor. Practicum: 5.0 credits (300 contact hours).
Components: Practicum
Attributes: Technical

OTA 277(5)
Level IIB Fieldwork
Provides opportunity to function in various clinical settings under supervision of experienced occupational therapy practitioner. Promotes collaboration with the Occupational Therapist in planning/implementation of treatment programs with clients with a variety of diagnoses and ages. Strengths complex skills, including critical thinking, required for entry-level of practice through the final of two successive fieldwork rotations in unique healthcare settings/institutions. Pre-requisite: Admission to OTA program and permission of instructor. Co-requisite: OTA 267 OR OTA 277. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

OTA 286(2) Course ID:006880
Clinical Seminar
Provides students an opportunity to share information from their clinical site with both the academic instructor and their classmates. Emphasizes application of information learned to other situations. Prepares students for National Board for Certification in Occupational Therapy (NBCOT) certification examination. Pre-requisite: Admission to OTA program and permission of instructor. Co-requisite: OTA 267 OR OTA 277. 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 relevant vocabulary, gives an overview of different areas of law, and presents ethics. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading and writing OR completion of Transitional reading and writing courses. Co-requisite: PGL 112. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

PGL 112(3) Course ID:007052
Legal Research
Introduces the basic sources of law and methods of legal research, including ethics. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading and writing OR completion of Transitional reading and writing courses. Co-requisite: PGL 111. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
PGL 113(3) Course ID:007053
Law Office Management
Provides practical application of daily legal office skills needed in the legal field, professional enrichment presentations, history of the profession, professional ethics through fact analysis, and an overview of law office management. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading and writing OR completion of Transitional reading and writing courses. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

PGL 211(3) Course ID:007054
Family Law
Examines the areas of law pertaining to domestic relations, emphasizing ethics. Pre-requisite: PGL 111 and PGL 112. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

PGL 212(3) Course ID:007055
Legal Writing
Includes composition of legal communications, briefs, memoranda, and other legal documents, with an emphasis on ethical considerations. Pre-requisite: PGL 111 and PGL 112. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

PGL 213(3) Course ID:007056
Civil Litigation I
Presents the litigation process and emphasizes the structure of the court systems. Includes gathering information and evidence, summarizing and arranging materials, maintaining docket and file control, developing a litigation case, and interviewing clients and witnesses, using ethical standards. Pre-requisite: PGL 111 and PGL 112. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

PGL 214(3) Course ID:007057
Real Property I
Introduces real property law including ownership, transfer of property, liens and encumbrances, and the various types of deeds. Pre-requisite: PGL 111 and PGL 112. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

PGL 221(3) Course ID:007058
Wills and Estates
Introduces the laws of inheritance and estates, basic concepts of estates and wills, probate procedures, and preparation of documents while emphasizing ethics. Pre-requisite: PGL 111 and PGL 112. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

PGL 223(3) Course ID:007059
Civil Litigation II
Continues the study of the litigation process from discovery through appeal. Emphasizes collecting and organizing discovery materials and demonstrating knowledge of the limits placed on discovery by the federal and state rules of civil procedure. Includes the trial and appeal phases of litigation, with emphasis on trial preparation and appellate procedure. Pre-requisite: PGL 213. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

PGL 224(3) Course ID:007060
Real Property II
Examines legal documents related to real property as recorded in the clerk’s office, the tax assessor’s office, and the circuit clerk’s office. Includes compiling a title abstract and completing an assignment to prepare a real estate file from transaction through closing and post-closing, implementing ethics. Pre-requisite: PGL 214. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

PGL 231(3) Course ID:007061
Torts
Provides instruction in the area of law that deals with civil wrongs and injuries, including intentional wrongs, negligence, and strict liability. Concentrates on the elements of a tort, type of tort, damages, ethics, and remedies. Pre-requisite: PGL 111 and PGL 112. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

PGL 233(3) Course ID:007062
Ethics
Provides an overview of the various sources of ethics law and rules, along with the essentials of how and why a legal professional must report misconduct. Explores the types of discipline an ethical lapse may trigger, such as sanctions, disqualification, civil and criminal liability, and what it means to be engaged in the "unauthorized practice of law." Pre-requisite: PGL 111 and PGL 112. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

PGY 206(3) Course ID:000846
Elementary Physiology
An introductory survey course in basic human physiology. Pre-requisite: One semester of college biology. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: University Course (University of Kentucky)

PHA 110(6) Course ID:004159
Pharmacy Procedures and Skills
Introduces the field of pharmacy technology in various pharmacy settings. Includes content on legal requirements and responsibilities of pharmacy technicians as they assist the pharmacist. Topics discussed will include professional communication and customer service, Patient Care Process, safety issues, and the basic skills of a pharmacy technician. Students will use a variety of interpersonal skills and self-management skills to produce a final product from a medication order, or prescription, following safe handling and preparation guidelines as set forth by governmental agencies. Pre-requisite: PHA 110, PHA 146, PHA 136. Co-requisite: PHA 200, PHA 236, PHA 240. Pre-requisite or Co-requisite: PHA 150. Lab: 1 credit (45 contact hours).
Components: Lecture Attributes: Technical

PHA 136(3) Course ID:001930
Pharmacology I
Introduces the study of drugs and their effect on the human body. Demonstrate basic knowledge of anatomy, physiology, pharmacology, and medical terminology relevant to the pharmacy technician’s role. Explain the use and side effects of prescription and non-prescription medications and alternative therapies. Pre-requisite or Co-requisite: Instructor Consent. Lecture: 4 credits (60 contact hours). Lab: 2 credits (90 contact hours).
Components: Laboratory, Lecture Attributes: Technical

PHA 146(3) Course ID:017643
Pharmaceutical Calculations
Provides review of basic math and introduction of knowledge to perform mathematical calculations essential to the duties of pharmacy technicians in a variety of settings. Promotes critical thinking of using pharmaceutical calculations skills to solve application problems accurately and efficiently. Prepares students and pharmacy technicians to solve calculation problems on the Pharmacy Technician Certification Exam (PTCE) through lecture and hands-on activities. Pre-requisite: Math ACT 16 or equivalent and instructor consent. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

PHA 200(3) Course ID:001932
Admixtures for IV Therapy
Introduces the field of pharmacy technology in various pharmacy settings. Includes content on legal requirements and responsibilities of pharmacy technicians as they assist the pharmacist. Topics discussed will include professional communication and customer service, Patient Care Process, safety issues, and the basic skills of a pharmacy technician. Students will use a variety of interpersonal skills and self-management skills to produce a final product from a medication order, or prescription, following safe handling and preparation guidelines as set forth by governmental agencies. Pre-requisite: PHA 110, PHA 146, PHA 136. Co-requisite: PHA 200, PHA 236, PHA 240. Pre-requisite or Co-requisite: PHA 150. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

PHA 236(3) Course ID:0017309
Pharmacology 2
Expands upon knowledge introduced in PHA 136. Introduces hospital-specific medications, their dosage forms, adverse effects and preparation instructions. Examines the process of clinical trials and investigational drugs. Enhances knowledge of drug safety, including pediatric and geriatric populations. Pre-requisite: PHA 110, PHA 146, PHA 136. Co-requisite: PHA 200, PHA 236, PHA 240. Pre-requisite or Co-requisite: PHA 150. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

PHA 240(3) Course ID:017309
Pharmacy Technician Career Planning
Prepare pharmacy technician students to take the Pharmacy Technician Certification Board exam. Review will focus on individual knowledge deficits. Preparation for interviews and career planning. Pre-requisite: PHA 110, PHA 146, PHA 136. Co-requisite: PHA 200, PHA 236, PHA 240. Pre-requisite or Co-requisite: PHA 150. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical
### PHB 100(6) Course ID: 001938
**Phlebotomy**
Prepares the student as an integral member of the health-care team to collect blood from patients/donors in hospitals, blood banks or clinics for analysis or other medical purposes. Includes standard precautions, record keeping, and therapeutic communication skills. Lecture/ Lab: 6.0 credits (90 contact hours).

**Components:** Lecture: Technical

**PHB 120(6) Course ID: 003809**
**Fundamentals of Clinical Laboratory Phlebotomy**
Fundamental techniques of areas of the clinical laboratory appropriate to the phlebotomist are introduced. Includes a study of medical ethics, medical terminology, anatomy and physiology of the circulatory system, professional organizations, communication, record keeping, specimen collection, chain of custody, laboratory safety, and quality control. Pre-requisite: CPR Certification, Malpractice insurance, Hepatitis, Varicella, PPD, Rubella, and Rubella blood work results. Lecture: 3 hours; Laboratory: 9 hrs.

**Components:** Laboratory, Lecture: Technical

**PHB 151(1) Course ID: 004072**
**Instructor Consent Required**
Phlebotomy for the Health Care Worker
Covers fundamental techniques in proper venipuncture and capillary collection. Includes a study of medical ethics, laboratory terminology, anatomy and physiology of the circulatory system, communication and record keeping, specimen processing, laboratory safety, isolation procedures and special collection. Lecture/Lab: 1.0 credits (30 contact hours).

**Components:** Lecture: Technical

**PHB 155(2 - 3) Course ID: 001939**
**Phlebotomy Clinical**
This course is designed to build on the knowledge acquired in phlebotomy lecture and lab. In this course the student will use external institutions for clinical experience to become more proficient in the performance of routine venipuncture and capillary collection procedures. The student will gain the experience needed to handle routine venipuncture complications and the skills necessary to adequately perform the duties of a phlebotomist. Pre-requisite: PHB 151 Phlebotomy for the Healthcare Professional with a grade of “C” or better OR (PHB 100 Phlebotomy with a grade of “C” or better) OR (PHB 170 Applied Phlebotomy with a grade of “C” or better.) Lecture/Lab: 2.0 - 3.0 credits (120 - 180 contact hours).

**Components:** Lecture: Technical

**PHB 170(3) Course ID: 006441**
**Applied Phlebotomy**
Teaches proper techniques in venipuncture and capillary collection. Includes a study of medical ethics, laboratory terminology, anatomy and physiology of the circulatory system, communication and record keeping; specimen processing, laboratory safety, isolation procedures, special collection procedures, specimen processing for the various laboratory departments, venipuncture complications, and quality assurance. Pre-requisite: Permission of the MLT Program Director/MLT Clinical Coordinator. Co-requisite: PHB 152, Lecture/Lab: 3.0 credits (60 contact hours).

**Components:** Lecture: Technical

### PHI 100(3) Course ID: 000894
**Introduction to Philosophy: Knowledge and Reality**
Introduces students to philosophical studies with emphasis on issues of knowing, reality, and meaning related to human existence. Lecture: 3 credits (45 contact hours).

**Components:** Lecture: Technical

**PHI 110(3) Course ID: 002202**
**Medical Ethics**
Introduces examination and application of major ethical theories to specific moral questions related to health care. Lecture: 3 credits (45 contact hours).

**Components:** Lecture: Technical

**PHI 120(3) Course ID: 000356**
**Introductory Logic**
Covers argumentation, syllogistic and sentential logic. Focuses on the use of formal methods in the construction and criticism of actual arguments, the aim being to inculcate standards of good reasoning, e.g., clarity, consistency, and validity. Lecture: 3.0 credits (45 contact hours).

**Components:** Lecture: Technical

**PHI 130(3) Course ID: 000354**
**Ethics**
Introduces students to a critical examination of philosophical principles related to moral action and political values. Lecture: 3 credits (45 contact hours).

**Components:** Lecture: Technical

**PHI 140(3) Course ID: 005139**
**The Ethics of War and Peace**
Ethical reasoning and application of ethical theories to moral issues connected to war and peace. Lecture: 3 credits (45 contact hours).

**Components:** Lecture: Technical

**PHI 150(3) Course ID: 000359**
**Business Ethics**
Presents ethical theories and techniques of moral reasoning used to analyze moral issues in business. Applies ethics and reasoning to current issues of management, employees, government, public safety, and the environment. Lecture: 3.0 credits (45 contact hours).

**Components:** Lecture: Technical

**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: Technical

**PHI 180(3) Course ID: 016765**
**Animal and Environmental Ethics**
Present ethical theories and techniques of moral reasoning used to analyze moral issues as they relate to animals and the environment. Applies ethical reasoning to current issues, such as sustainability, research, farming, hunting, future generations, and value. Lecture: 3.0 credits (45 contact hours).

**Components:** Lecture: Technical

**PHI 200(3) Course ID: 016766**
**Professional Responsibility**
Assess the proper role of ethics within different professional settings, examining different professional codes of ethics and approaches to leadership and professionalism. Explore the nature of the professional's client relationship, recurring moral dilemmas, and the role of professionals in society. Develop a professional portfolio and practical professional skills. Lecture: 3 credits (45 contact hours).

**Components:** Lecture: Technical

**PHI 250(3) Course ID: 016844**
**Symbolic Logic**
Introduces students to the methods of formal deductive logic with emphasis upon applications to mathematics, computer science, and/or legal reasoning. Covers the language and rules of formal logic as well as techniques of formal proof. Pre-requisite: Math placement scores at or above benchmark OR KCTCS math placement exam recommendation OR Successful completion of transitional math coursework OR Concurrent enrollment in PHI250-S. Lecture: 3.0 credits (45 contact hours).

**Components:** Lecture: Technical

**PHI 260(3) Course ID: 000698**
**History of Philosophy I: From Greek Beginnings to the Middle Ages**
Provides an introductory study of the development of Western philosophy from ancient through late medieval times, including the development of fields such as logic, metaphysics, epistemology, and ethics. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).

**Components:** Lecture: Technical

**PHI 270(3) Course ID: 000497**
**History of Philosophy II: From the Renaissance to the Present Era**
Provides an introductory study of the development of Western philosophy from early modern through contemporary times, including the development of fields such as metaphysics, analytic and continental philosophy, and ethics. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).

**Components:** Lecture: Technical

**PHI 299(3) Course ID: 006689**
**Special Topics in Philosophy: Topic**
Examines special topics in philosophy. Includes, but not limited to, individual philosophers, movements, writings, traditions, and selected eras. Lecture: 3.0 credits (45 contact hours).

**Components:** Lecture: Technical

**PHI 1501(1) Course ID: 016636**
**Theories in Business Ethics**
Provides an introductory study of the development of Western philosophy from early modern through contemporary times, including the development of fields such as metaphysics, analytic and continental philosophy, and ethics. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).

**Components:** Lecture: Technical
PHI 1502(1) Course ID:016637
Applying Business Ethics
Applies ethics and reasoning to current issues of management. Pre-requisite: PHI 1501. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

PHI 1503(1) Course ID:016638
Defending Business Ethics
Evaluates current theories of corporate responsibility. Pre-requisite: PHI 1502. Lecture: 1.0 credits (15 contact hours).
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 Physics
PHY 151(3) Course ID:000840
Introductory Physics I
Focuses on the conceptual principles of mechanics of solids, liquids, gases, heat, and sound using some algebra. Credit is not given to students who already have credit for PHY 201 or PHY 231. Companion lecture to PHY 161 laboratory. Pre-requisite: KCTCS placement in College Algebra or completion of Intermediate Algebra. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: SN - Science
PHY 152(3) Course ID:000402
Introductory Physics II
Focuses on the conceptual principles of electricity, magnetism, optics, atomic, and nuclear physics using some algebra. Credit is not given to students who already have credit for PHY 203 or PHY 232. Companion lecture to PHY 162 laboratory. Pre-requisite: KCTCS placement in College Algebra or completion of Intermediate Algebra. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: SN - Science
PHY 160(3) Course ID:000436
Physics and Astronomy for Elementary Teachers
Addresses basic concepts of astronomy and physics appropriate for elementary teachers and is taught with an emphasis on inquiry-based, laboratory activities. Topics include the basics of the motion of objects, astronomy by sight, electrical circuits, magnetism and the behavior of light. Companion course to GLY 160. Pre-requisite: GLY 160. Lecture: 1 credit hour (15 contact hours). Lab: 2 credit hours (75 contact hours).
Components: Laboratory, Lecture Attributes: SL - Science Laboratory, SN - Science
PHY 1716(0.5)  Course ID:006114  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 (3.38 contact hours).
Components: Lecture

PHY 1717(0.5)  Course ID:006115  Modern and Nuclear Physics
Surveys selected topics in atomic, nuclear, and modern physics. Pre-requisite: (MA 108 or MT 115 or greater) or Equivalent math placement score or consent of instructor. Lecture/Lab: 0.5 credit (9.37 contact hours).
Components: Lecture

PHY 1718(0.5)  Course ID:006116  Integrated Physics Concepts
Surveys 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 (9.36 contact hours).
Components: Lecture

PL 151(4)  Course ID:001960  Polymer Science & Testing
Provides an in-depth study of various plastics and important processing methods. Examines molecular structures and their effect on mechanical, chemical and physical properties. Includes commodity and engineering thermoplastics, thermostets and elastomers, extrusion, injection, blow molding and thermoforming. Pre-requisite: PL 101. Lecture: 4 credits (60 contact hours).
Components: Lecture

PLB Plumbing

PLB 100(3)  Course ID:004325  Basic Theory of Plumbing
Provides a history of the plumbing trade and basic principles of the trade. Lecture: 2 credits (45 contact hours).
Components: Lecture  Attributes: Technical

PLB 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 (135 contact hours).
Components: Laboratory  Attributes: Technical

PLB 163(2)  Course ID:001949  Plumbing Fixtures
Develps 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: PLB 250. Laboratory: 2 credits (90 contact hours).
Components: Laboratory

PLB 250(3)  Course ID:001950  Plumbing Appliances & Fixtures
Presents the installation practices of residential water heaters (electrical and gas), and the installation of commercial water heating systems with pumps, controls, and valve systems. Study will also include site layout and testing. Pre-requisite: PLB 150. Lecture: 3 credits (45 contact hours).
Components: Lecture  Attributes: Technical

PLB 251(2)  Course ID:001951  Pumps and Water Heaters
Develops skills in the installation of plumbing appliances (water heater), and appurtenances. Pre-requisite: PLB 150. Co-requisite: PLB 250. Laboratory: 2 credits (90 contact hours).
Components: Laboratory  Attributes: Technical

PLB 260(2)  Course ID:001953  Sewer
This course presents the study of methods, procedures, and skills involved in planning and estimating residential and commercial plumbing fixtures and systems. Pre-requisite: PLB 150 or equivalent. Lecture: 2 credits (30 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). Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture  Attributes: Technical

PLB 298(4)  Course ID:004251  Instructor Consent Required
Practicum/Repairs & Maintenance
Designed to provide the student with experience in the plumbing industry. This will be a non-paid evaluation of a student’s developed skills. Pre-requisite: Consent of instructor. Practicum: 4 credits (180 contact hours).
Components: Practicum  Attributes: Technical

PLB 299(4)  Course ID:001958  Instructor Consent Required
Cooperative Education
Provides students with experience in the plumbing industry. This will be a paid evaluation of a student’s developed skills. Pre-requisite: Consent of Instructor. Co-op: 4 credits (300 contact hours).
Components: Co-Op  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 Course (Western Kentucky University)
PLW 145(4) Course ID:016454

Biomedical Innovation
Leads students to apply their knowledge and skills to answer questions or solve problems related to the biomedical sciences in a capstone course. Facilitates student design of innovative solutions for the health challenges of the 21st century in areas such as clinical medicine, physiology, biomedical engineering, and public health. Provides the opportunity to work on an independent project with a mentor or advisor from a university, hospital, physician’s office, or health industry provider. Students present their work to an adult audience including representatives from the local business and healthcare community. Pre-requisite: PLW 140. Lecture/Lab: 4 credits (150 contact hours).

Components: Lecture
Attributes: Technical

PLW 150(4) Course ID:006697

Digital Electronics
This course uses computer simulations and hands on laboratory to teach students about the logic of electronics as they design, test, and construct electronic circuits and devices. Lecture: 1 credit (15 contact hours). Lab: 3 credits (45 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

PLW 200(4) Course ID:006698

Aerospace Engineering
The major focus of the Aerospace EngineeringTM (AE) course is to expose students to the world of aeronautics, flight, and engineering. They will employ engineering and scientific concepts in the solution of aerospace problems. Pre-requisite: PLW-100, PLW-125, and PLW-150. Lecture/Lab: 4.0 credits (150 contact hours).

Components: Lecture
Attributes: Technical

PLW 225(4) Course ID:006699

Civil Engineering and Architecture
The major focus of the Civil Engineering and ArchitectureTM (CEA) course is a long-term project that involves the development of a local property site. As students learn about various aspects of civil engineering and architecture, they apply what they learn to the design and development of this property. Pre-requisite: PLW-100, PLW-125, and PLW-150. Lecture/Lab: 4.0 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

PLW 295(4) Course ID:006701

Engineering Design and Development
Engineering student teams research, design, and construct a solution to open-ended engineering problem using product development lifecycle and the design process; presentation to defend solutions to a panel of outside reviewers. Pre-requisite: PLW 150 AND one of the following: PLW 200, OR PLW 225, OR PLW 250, OR Consent of the APC and/or Instructor. Lecture/Lab: 4.0 credits (150 contact hours).

Components: Lecture

PMX Power Mechanics/Measurement

PMX 100(3) Course ID:001962

Precision Measurement
This class introduces the student to the basic fundamentals of precision measurement and its application in the industrial setting. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

POL Political Science

POL 101(3) Course ID:000912

American Government
Examines national government and the political process in the United States, with emphasis on the Constitution, the President, Congress, and the judicial system. Focuses on the nature of American democracy, political challenges, and opportunities. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: SB - Social Behavior Science

POL 210(3) Course ID:000630

Introduction to European Politics: East and West
Compares the political institutions, policy-making processes, citizen participation and political outcomes in Eastern and Western European states. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SB - Social Behavior Science

POL 212(3) Course ID:002254

Culture and Politics in Developing Nations
Examines and compares the politics of selected states in Africa, Asia, and Latin America analyzing such issues as culture, ethnicity, language, social class, and ideology. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

POL 235(3) Course ID:000438

World Politics
Examines the most significant problems of world politics, including the fundamental factors governing international relations; the techniques and instruments of power politics, and the conflicting interest in organizing world peace. Lecture: 3.0 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: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: SB - Social Behavior Science

POL 271(3) Course ID:000724

Introduction to Political Behavior
The study of behavior in a political context; the analysis of basic behavioral concepts used in political science such as political roles, group behavior, belief systems, personality, power, and decision-making. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Other

POL 280(3) Course ID:005213

Issues in Public Policy
Examines selected major public issues, focusing on their nature, political ramifications, and alternate methods of managing conflict. Includes discussion of varying policies such as poverty, health care, energy, education, race and ethnic relations, and the environment. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Other

PSJ Professional Artist/Jewelry

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

PSJ 211(3) Course ID:005072

Holloware and Metal Forming
Covers design and technical processes creating functional hollowware. Emphasizes dimensional forming of sheet metal through raising, sinking, planishing and anticlastic forming. Pre-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 210 and PSJ 212) or Consent of Instructor. Lab: 3.0 credits (90 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. Lecture: 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 or PSJ 220) or Consent of Instructor. Lab: 6.0 credits (180 contact hours).

Components: Laboratory

PSM Professional Studio Artist Music

PSM 101(3) Course ID:005552

Bluesgrass & 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 bluesgrass 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 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 8 credits. Pre-requisite: Audition. Lab: 1.0 credit (30 contact hours).  
Components: Laboratory  
Attributes: Technical

PSM 113(1)  Course ID:007259  
Guitar I  
Teaches basic fundamentals of bluegrass and traditional chords, rhythm and simple flat-picking lead along with standard tuning and set-up tips. Pre-requisite: MUS 174 or Consent of Instructor. Lab: 1.0 credit (30 contact hours).  
Components: Laboratory  
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 structure of a band under the guidance of a professional band leader. May be repeated with different subtitle for a maximum of 8 credits. Lab: 2.0 credits (60 contact hours).  
Components: Laboratory  
Attributes: Technical

PSM 117(1)  Course ID:007261  
Songwriting II  
Provides guidance through the process of creating and refining original melodies and lyrics under the direction of a professional songwriter, emphasizing different techniques while overcoming barriers. Pre-requisite: PSM 107 or Consent of Instructor. Lab: 1.0 credit (30 contact hours).  
Components: Laboratory

PSM 118(2)  Course ID:007262  
Bluegrass & Traditional Harmony/Part Singing  
Introduces basic bluegrass and traditional harmony/part singing and theory using ear training, number notation and basic chords. Pre-requisite: MUS 174 or Consent of Instructor. Lab: 2.0 credits (60 contact hours).  
Components: Laboratory

PSM 121(3)  Course ID:005557  
Bluegrass & Traditional Music History II: Evolution of Old Time, Folk and Early Bluegrass  
Provides an in-depth study of old time, folk and early bluegrass music genres and their components, exploring connections between radio, labor conflict, war and early professional musicians. Pre-requisite: PSM 101 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture

PSM 125(1)  Course ID:005558  
Recording II  
Provides practical studio and set-up training for recording sessions utilizing software and computers. Pre-requisite: PSM 105 or Consent of Instructor. Laboratory: 1.0 credit (30 contact hours).  
Components: Laboratory  
Attributes: Technical

PSM 128(1)  Course ID:005559  
Songwriting II  
Provides guidance through the process of creating and refining original melodies and lyrics under the direction of a professional songwriter, emphasizing different techniques while overcoming barriers. Pre-requisite: PSM 108 or Consent of Instructor. Lab: 1.0 credit (30 contact hours).  
Components: Laboratory

PSM 217(2)  Course ID:007263  
Songwriting III  
Provides guidance through the process of creating and refining original melodies, lyrics and music under the direction of a professional songwriter, emphasizing writing for specific media and multi-writer collaboration. Pre-requisite: PSM 117 or Consent of Instructor. Lab: 2.0 credits (60 contact hours).  
Components: Laboratory

PSM 227(2)  Course ID:007264  
Songwriting IV  
Provides guidance through the process of creating an effective demo and marketing original songs under the direction of a professional songwriter, emphasizing writing and refining the completed demo project. Pre-requisite: PSM 217 or Consent of Instructor. Lab: 2.0 credits (60 contact hours).  
Components: Laboratory

PSM 231(3)  Course ID:005560  
Bluegrass & Traditional Music History III: Early Stringband & Country Music  
Provides an in-depth study of early stringband, country music and promotion pioneers, focusing on the role of early radio and barn dances. Pre-requisite: PSM 121 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

PSM 235(2)  Course ID:005561  
Recording III  
Provides an in-depth study of computer and Pro Tools software, recording techniques and applications. Pre-requisite: PSM 125 or Consent of Instructor. Laboratory: 2.0 credits (60 contact hours).  
Components: Laboratory  
Attributes: Technical

PSM 238(2)  Course ID:005562  
Songwriting III  
Provides guidance through the process of creating and refining original melodies, lyrics and music under the direction of a professional songwriter, emphasizing writing for specific media and multi-writer collaboration. Pre-requisite: PSM 128 or Consent of Instructor. Lab: 2.0 credits (60 contact hours).  
Components: Laboratory  
Attributes: Technical

PSM 241(3)  Course ID:005563  
Bluegrass & Traditional Music History IV: The Masters & Their Music  
Provides a comprehensive study of the music and careers of the iconic figures in bluegrass & traditional music from 1936 to present. Requires 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 245(2)  Course ID:005564  
Recording IV  
Provides an advanced and complex study of recording, mixing and editing software session data to finished products. Pre-requisite: PSM 235 or Consent of Instructor. Laboratory: 2.0 credits (60 contact hours).  
Components: Laboratory

PSM 248(2)  Course ID:005565  
Songwriting IV  
Provides guidance through the process of creating an effective demo and marketing original songs under the direction of a professional songwriter, emphasizing writing and refining the completed demo project. Pre-requisite: PSM 238 or Consent of Instructor. Lab: 2.0 credits (60 contact hours).  
Components: Laboratory

PSM 250(3)  Course ID:005566  
Instructor Consent Required  
Field Experience/Production/Business  
Designed to give a wide variety of practical, hands-on work experience in the bluegrass and traditional music field. (Companion course to PSA 240). Pre-requisite: Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours).  
Components: Laboratory, Lecture

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: (PSW 115 and PSW 116) or Consent of Instructor. Lab: 3.0 credits (90 contact hours).  
Components: Laboratory

PSY Psychology  

PSY 100(3)  Course ID:000563  
General Psychology  
Introduces the history, methods and content of modern psychology. Covers the history and systems of psychology, psychological research, physiological psychology, psychological processes, developmental psychology, personality, abnormal behavior and social psychology. Pre-requisite or Co-requisite: Current placement scores for college level reading established by KCTCS or completion of, or concurrent enrollment in, transitional reading course(s). Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: SB - Social Behavior Science, Course Also Offered in Modules

PSY 180(3)  Course ID:000151  
Human Relations  
Explores the sociological and psychological forces that affect interpersonal relationships as individuals work and live together. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading OR completion of Transitional reading course(s). Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: SB - Social Behavior Science

PSY 185(3)  Course ID:000602  
Human Potential  
Introduces the principles of relating to self and others and focuses upon self-growth. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: SB - Social Behavior Science

PSY 188(1)  Course ID:000604  
Directed Undergraduate Research in Psychology  
Explores in-depth a specific topic related to the student’s personal or career interests in psychology under the direction of a faculty member. Reading proposal must be approved by instructor. Pre-requisite: PSY 110 and consent of instructor. Lecture: 1.0 credit (15 contact hours).  
Components: Lecture  
Attributes: Other

PSY 189(1 - 2)  Course ID:000606  
Directed Undergraduate Research in Psychology  
Requires students to design and conduct an elementary research project relevant to the student’s personal or career interests in psychology under the direction of a faculty member. Requires development of a psychology literature review. Research proposal must be approved by instructor. Pre-requisite: PSY 213 and consent of instructor (if PSY 215 is changed to PSY 213 Research Methods) Laboratory: 1.0 - 2.0 credits (30-60 contact hours).  
Components: Laboratory  
Attributes: Other

PSY 212(4)  Course ID:002256  
Applications of Statistics in Psychology  
Introduces students to descriptive and inferential statistics in design, analysis, and interpretation of psychological research. Pre-requisite: ACT, COMPASS, or ASSET score for college level mathematics or completion of Transitional math course(s); PSY 110. Lecture/Lab: 4.0 credits (75 contact hours).  
Components: Integrated Laboratory, Integrated Lecture  
Attributes: Other
PSY 213(4) Research Methods
Course ID:002255
Research Methods
Applies scientific methods to psychological research. Provides practical experience in designing and executing a research project using observational, survey, and/or true experimental design methodologies. Requires application of descriptive and inferential statistics and written report of research project results. Pre-requisite: PSY 110. Lecture/ Lab: 4.0 credits (75 contact hours).

Components: Lecture
Attributes: Other

PSY 223(3) Developmental Psychology
Course ID:000488
Examines physical, cognitive, emotional, and social development throughout the lifespan from conception to death. Reviews concepts, principles, and theories of developmental psychology. Explores influences upon psychological development such as heredity, culture, ethnicity, socioeconomic status, and gender. Pre-requisite: PSY 100 or PSY 110. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Other

PSY 230(3) Psychosocial Aspects of Death and Dying
Course ID:000387
Examines the biophysiological, psychological, sociological, and cultural aspects of death and dying in the evolving global world. Explores variations in the behaviors and attitudes associated with death, dying, and bereavement, with particular attention to the contexts (e.g., cultural, familial, historical, life span developmental) in which these variations occur. Pre-requisite: PSY 110 or SOC 101, or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

PSY 297(3) Psychology of Aging
Course ID:004818
Provides an overview of the demographics of aging, theories of aging and research methods used to study adult development. Examines the biological, psychological, and social impact of aging, longevity work, retirement, death, and bereavement. Pre-requisite: PSY 110 or consent of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SB - Social Behavior Science

PSY 298(3) Essentials of Abnormal Psychology
Course ID:004819
Provides an overview of the theories, diagnoses, and treatments of psychological disorders. Covers the biological, psychological, and social factors that influence the etiology, understanding, and management of psychopathology within society. Pre-requisite: PSY 110 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: SB - Social Behavior Science

PSY 2232(0.6) Infancy through Early Childhood
Course ID:006380
Emphasizes theory and data relating to the physical, cognitive, and psycho-social developmental aspects of infancy, toddlerhood, and early childhood. Pre-requisite: PSY 2231. Lecture: 0.6 credit (9 contact hours).

Components: Lecture

PSY 2233(0.6) Middle Childhood & Adolescence
Course ID:006381
Emphasizes theory and data relating to the physical, cognitive, and psycho-social developmental aspects of middle childhood and adolescence. Pre-requisite: PSY 2232. Lecture: 0.6 credit (9 contact hours).

Components: Lecture

PSY 2324(0.6) Emerging and Middle Adulthood
Course ID:006382
Emphasizes theory and data relating to the physical, cognitive, and psycho-social developmental aspects of emerging and middle adulthood. Pre-requisite: PSY 2233. Lecture: 0.6 credit (9 contact hours).

Components: Lecture

PSY 2235(0.6) Late Adulthood; Death & Dying
Course ID:006383
Emphasizes theory and data relating to the physical, cognitive, and psycho-social developmental aspects of late adulthood. Explores issues related to death and bereavement. Pre-requisite: PSY 2234. Lecture: 0.6 credit (9 contact hours).

Components: Lecture

PTA Physical Therapist Assistant

PTA 101(5) Orientation to Physical Therapy Practice
Course ID:016102
Includes orientation to the profession of physical therapy, legal aspects of physical therapy practice, interdisciplinary team, cultural diversity, medical terminology, research and evidence-based practice, and introductory patient-care skills such as communication, aseptic techniques, body mechanics, safety procedures, wheelchair management, patient transfers, patient positioning and draping, and vital signs, identification and fitting of ambulation aids, basic gait training, patient and consumer education. Pre-requisite: Admission to the PTA Program and completion of BIO 137 with a grade of “C” or better. Co-requisite: PTA 125. Lecture: 2 credits (30 contact hours). Lab: 3 credits (90 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

PTA 120(2) Basic Skills for the PTA
Course ID:006723
Introduces basic concepts of health and disease and introductory patient care skills. Includes orientation to the profession of physical therapy, legal aspects of physical therapy practice, and introductory patient-care skills such as aseptic technique; body mechanics; safety procedures; wheelchair management; patient transfers; positioning and draping; gait training; passive, active, and active-assisted exercise and stretching. Pre-requisite: Admission to the PTA Program; Completion of BIO 137 & BIO 139 with a C or better. Co-requisite: PTA 1501, PTA 1502, PTA 121, PTA 170. Lecture: 2 credits (30 contact hours).

Components: Lecture

PTA 121(2) Basic Skills for the PTA Lab
Course ID:006724
Develops introductory patient-care skills such as communication; safety procedures; aseptic technique; body mechanics; wheelchair management; patient transfers; positioning and draping; gait training; pain assessment; passive, active, and active-assisted exercise; stretching; and documentation. Lab experiences will reflect concepts taught in the paired lecture course. Pre-requisite: Admission to the PTA Program; Completion of BIO 137 & BIO 139 with a C or better. Co-requisite: PTA 1501 and PTA 1502 and PTA 120 and PTA 170. Lab: 2 credits (60 contact hours).

Components: Laboratory

PTA 125(1) Neuroanatomy for the PTA
Course ID:007370
Encompasses the neuroanatomy of the central and peripheral nervous systems and applies these concepts to common neurological pathologies found in rehabilitation. Pre-requisite: Admission to the PTA Program and completion of BIO 137 with a grade of “C” or better. Co-requisite: PTA 101. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

PTA 150(6) Functional Anatomy and Kinesiology
Course ID:004174
Emphasizes the structure and function of the musculoskeletal system, the relationship with biomechanical principles, basic physical principles, and the mechanical aspects of human motion. Includes muscle testing, flexibility testing, goniometry, and aspects of normal gait and posture. Pre-requisite: [Pathway 1: Admission to the PTA Program and completion of BIO 137, BIO 139, PTA 101 & PTA 125 with a grade of C or better.] OR [Pathway 2: Admission to the PTA Program and completion of BIO 137 & BIO 139 with a grade of C or better]. Co-requisite: [Pathway 1: PTA 150 and PTA 170] OR [Pathway 2: PTA 120, PTA 121 and PTA 170]. Lecture: 3.0 credits (45 contact hours). Lab: 3.0 credits (90 contact hours).

Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

PTA 160(3) Medical and Surgical Conditions in Physical Therapy
Course ID:004173
Includes the study of health and disease of all age groups with an emphasis on the etiology, pathology, prevention, data collection, and physical therapy interventions in selected medical and surgical conditions encountered in physical therapy. Pre-requisite: Admission to the PTA Program and completion of BIO 137, BIO 139, PTA 101 and PTA 125 with a C or better. Co-requisite: PTA 150 and PTA 170. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

PTA 170(1) Clinical Practicum I
Course ID:004013
Includes clinical observations and practice of selected physical therapy interventions and data collection with the application of knowledge from previous/concurrent PTA courses and general education coursework. Pre-requisite: [Pathway 1: Admission to the PTA Program and completion of BIO 137, BIO 139, PTA 101 & PTA 125 with a C or better.] OR [Pathway 2: Admission to the PTA Program and completion of BIO 137 & BIO 139 with a C or better.] Co-requisite: [Pathway 1: PTA 150 and PTA 160] OR [Pathway 2: PTA 120, PTA 121, PTA 1501, and PTA 1502). Clinical: 1 credit (60 contact hours).

Components: Clinical
Attributes: Technical

PTA 200(5) Modalities & Procedures in Physical Therapy
Course ID:004017
Includes the basic physical science principles of selected physical therapy interventions, data collection, and selected physiotherapy interventions including wound therapy, compression therapy, safety procedures, gait training, traction, massage, superficial heat and cold, deep heat modalities, electrotherapy, ultraviolet radiation, hydrotherapy, and documentation. Pre-requisite: If yes, list application to the PTA Program and completion of: PTA 150 and 160 with a grade of “C” or better; PTA 170 with a grade of “P”; all general education courses required for completion of the Physical Therapist Assistant program with a grade of “C” or better. Co-requisite: PTA 220 and PTA 240. Lecture: 2 credits (30 contact hours). Laboratory: 3 credits (90 contact hours).

Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

PSY 2231(0.6) Special Introductory Topics in Psychology
Course ID:006379
Introduces specialized topics in the field of psychology to meet current trends and investigations of contemporary issues in the discipline. May be repeated to a maximum of six credits under different subtitles. Pre-requisite: PSY 110 or consent of instructor. Lecture: 1.0 - 3 credits (15 - 45 contact hours).

Components: Lecture
Attributes: Other

PSY 2232(0.6) Special Introductory Topics in Psychology
Course ID:006379
Introduces specialized topics in the field of psychology to meet current trends and investigations of contemporary issues in the discipline. May be repeated to a maximum of six credits under different subtitles. Pre-requisite: PSY 110 or consent of instructor. Lecture: 1.0 - 3 credits (15 - 45 contact hours).

Components: Lecture
Attributes: Other

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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, electromagnetics, radiation, electrotherapy, biofeedback, traction, and compression therapy. Pre-requisite: Admission to the PTA Program; Completion of PTA 1501, PTA 1502, PTA 202, PTA 121 with a C or better. Course-id: 222, PTA 223, PTA 234, PTA 233, PTA 203 and PTA 240. Students cannot progress to PTA 240 without a grade of C or better in all other co-requisite courses. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

PTA 203(2)  Course ID: 006726
Therapeutic Modalities in Physical Therapy Lab
Develops skills in data collection, documentation, and the application of selected physical therapy interventions including, massage, superficial heat and cold, sound agents, electrotherapy, biofeedback, traction, and compression therapy. Lab experiences will reflect concepts taught in the paired lecture course. Pre-requisite: Admission to the PTA Program; Completion of PTA 1501, PTA 1502, PTA 120, PTA 121, PTA 170 with a C or better. Co-requisite: PTA 222, PTA 223, PTA 234, PTA 233, PTA 202, PTA 240. Student cannot progress to PTA 240 without a grade of C or better in all other co-requisite courses. Lab: 2.0 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

PTA 220(5)  Course ID: 004016
Physical Therapy Principles & Procedures
Emphasizes selected physical therapy interventions, documentaton, and data collection for management of patients with the following problems: musculoskeletal conditions, pulmonary diseases, pathological gait, balance problems, thermal injuries, arthritis, amputations and cardiac diseases. Includes therapeutic exercise, orthotics, prosthetics, wellness, and women’s health issues. Pre-requisite: Admission to the PTA Program and completion of: PTA 150 and 160 with a grade of “C” or better; PTA 170 with a grade of “P”; all general education courses required for completion of the Physical Therapist Assistant program with a grade of “C” or better. Co-requisite: PTA 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
Emphasizes the etiology, pathology, diagnosis, data collection, and selected physical therapy interventions for management of patients with the following problems: musculoskeletal conditions, pathological gait, arthritis, and amputations. Includes the study of wellness and women’s health issues. Pre-requisite: Admission to the PTA Program; Completion of PTA 1501, PTA 1502, PTA 120, and PTA 121 with a C or better. Completion of PTA 170 with a grade of “P”. Co-requisite: PTA 222, PTA 223, PTA 234, PTA 233, PTA 202, and PTA 203 and PTA 240. Students cannot progress to PTA 240 without a grade of C or better in all other co-requisite courses. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
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 ages with disabilities resulting from the following: brain injury, spinal cord injury, and genetic/congenital disorders. Includes balance disorders, normal growth and development, and the rationale and techniques of neuromuscular re-education. Pre-requisite: Admission to the PTA Program; Completion of PTA 1501, PTA 1502, PTA 120, and PTA 121 with a C or better. Completion of PTA 170 with a grade of P. Co-requisite: PTA 222, PTA 223, PTA 234, PTA 202, and PTA 203 and PTA 240. Students cannot progress to PTA 240 without a grade of C or better in all other co-requisite courses. Lecture: 3 credits (45 contact hours).
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 neurodegenerative 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 (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

PTA 255(1)  Course ID: 006732
Pathology & Rehabilitation of Special Populations & Conditions Lab
Develops skills in the application of selected physical therapy interventions for patients with the following problems: respiratory system, cardiovascular system, metabolic, and rheumatologic pathologies; psychiatric disorders; infectious diseases; oncology; thermal injuries; intemagatory disorders; and wounds. Includes therapeutic exercise and wound care. Pre-requisite: PTA 222, PTA 223, PTA 234, PTA 233, PTA 202, and PTA 203 with a grade of C or better. Completion of PTA 240 with a grade of P. Co-requisite: PTA 256, PTA 260, and PTA 280. Students cannot progress to PTA 280 without a grade of C or better in all other co-requisite courses. Lab: 1 credit (30 contact hours).
Components: Laboratory
Attributes: Technical

PTA 256(2)  Course ID: 016884
Pathology & Rehabilitation of Special Populations and Conditions
Emphasizes the etiology, pathology, prevention, data collection, and selected physical therapy interventions for management of patients with the following conditions: respiratory system, cardiovascular system, metabolic, and rheumatologic pathologies; psychiatric disorders; infectious diseases; oncology; thermal injuries; intemagatory disorders; and wounds. Includes therapeutic exercise and wound care. Pre-requisite: PTA 222, PTA 223, PTA 234, PTA 233, PTA 202, and PTA 203 with a grade of 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. Lecture: 2.0 credits (30 contact hours).
Components: Lecture

PTA 260(2)  Course ID: 004172
Seminar in Physical Therapy
Focuses on rehabilitation procedures, including assistive devices, for patients of all age groups with disabilities resulting from brain injury, spinal cord injury, genetic/congenital disorders, and other neurodegenerative disorders. Includes normal growth and development and the rationale and techniques of neuromuscular re-education. Pre-requisite: Admission to the PTA Program and completion of: PTA 200 and 220 with a grade of “C” or better and PTA 240 with a grade of “P.” OR Pathway 1: Admission to the PTA Program and completion of: PTA 200 and 220 with a grade of “C” or better and PTA 240 with a grade of “P.” OR Pathway 2: PTA 202, PTA 203, PTA 222, PTA 234, PTA 233, PTA 202 and PTA 203 with a grade of C or better. Completion of PTA 240 with a grade of P. Co-requisite: PTA 256, PTA 260, and PTA 280. Students cannot progress to PTA 280 without a grade of C or better in all other co-requisite courses. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical
PTA 280(5)  Course ID:004020

Clinical Practicum III
Includes clinical observation and practice of physical therapy interventions and data collection with the application of knowledge from previous and concurrent PTA courses and general education coursework. By the end of the clinical experience the student will demonstrate an entry level of practice. Pre-requisite: [Pathway 1: Admission to the PTA Program and completion of PTA 200 and PTA 202 with a grade of C or better and PTA 240 with a grade of P] OR [Pathway 2: PTA 202, PTA 203 PTA 222, PTA 223, PTA 232, and PTA 233 with a grade of C or better. Completion of PTA 240 with a grade of P] Co-requisite: [Pathway 2: PTA 254, PTA 255, and PTA 260. Students cannot progress to PTA 280 without a grade of C or better in all Co-requisite courses.] Pre-requisite Or Co-requisite: [Pathway 1: PTA 250, PTA 260; if taken as Pre-requisites to PTA 280, must earn a C or better for PTA 250 & PTA 260.] Practicum: 5 credits
Components: Practicum
Attributes: Technical

PTA 1501(3)  Course ID:006721

Functional Anatomy and Kinesiology Lab
Develops selected data collection techniques in physical therapy, including: goniometry, manual muscle testing, flexibility, sensory integrity, reflex testing, and postural assessment. Lab experiences will reflect concepts taught in paired lecture course. Pre-requisite: [Pathway 1: Admission to the PTA Program and completion of BIO 137, BIO 139, PTA 101 and PTA 125 with a grade of C or better] OR [Pathway 2: Admission to the PTA Program; Completion of BIO 137 & BIO 139 with a C or better.] Co-requisite: [Pathway 1: PTA 160, PTA 170 & PTA 1502 OR [Pathway 2: PTA 120, PTA 121, PTA 1502 and PTA 170]. Lab: 3 credits (90 contact hours).
Components: Laboratory

PTA 1502(3)  Course ID:006722

Functional Anatomy and Kinesiology Lecture
Provides knowledge related to the structure and function of the musculoskeletal system, the relationship with biomechanical principles, basic physical principles, and the mechanical aspects of human motion. Includes principles of muscle testing, flexibility testing, goniometry, and aspects of normal gait and posture. Pre-requisite: [Pathway 1: Admission to the PTA Program and completion of BIO 137, BIO 139, PTA 101 & PTA 125 with a grade of C or better.] OR [Pathway 2: Admission to the PTA Program and completion of BIO 137 & BIO 139 with a C or better.] Co-requisite: [Pathway 1: PTA 160, PTA 170 & PTA 1501 OR [Pathway 2: PTA 120, PTA 121, PTA 1501 and PTA 170].] Lecture: 3 credits (45 contact hours).
Components: Lecture

QMS 262(4)  Course ID:000694

Design of Experiments
Basic statistical methods are reviewed. Statistical techniques which parallel methods of SPC are introduced. Analysis of means, analysis of variance, and contrast comparisons are studied to facilitate the understanding of the different experimental design methods. Examples from manufacturing illustrate how to reduce product variability and optimum process factor settings. Computer software is utilized throughout the course. Lecture: 3 credits (45 contact hours). Laboratory: 1 credit (15 contact hours).
Components: Lecture

QMS 1011(0.6)  Course ID:005165

Understanding a Quality Focused Organization
Past quality initiatives and progressive quality trends. Lecture: 0.6 credits (9 contact hours)
Components: Lecture

QMS 2012(0.6)  Course ID:005166

Quality Tools of the Trade
Quality improvement tools and techniques and their integration into an organization. Pre-requisite: QMS 1011 or consent of instructor. Lecture: 0.6 credits (9 contact hours)
Components: Lecture

QMS 2013(0.6)  Course ID:005167

Systems for Quality Improvement
Integrated quality systems and operations that produce high levels of employee and intra-organizational commitment. Pre-requisite: QMS 1012 or consent of instructor. Lecture: 0.6 credits (9 contact hours)
Components: Lecture

QMS 1014(0.6)  Course ID:005168

Quality Planning for Continuous Improvement
Organizational-wide planning techniques and processes focused on long-term quality improvement. Pre-requisite: QMS 1013 or consent of instructor. Lecture: 0.6 credits (9 contact hours)
Components: Lecture

QMS 1015(0.6)  Course ID:005169

People Power: The Key to Quality Improvement
Maximizing the capabilities of people by creating a fun and positive work environment. Pre-requisite: QMS 1014 or consent of instructor. Lecture: 0.6 credit (9 contact hours)
Components: Lecture

QMS 2011(1)  Course ID:006199

Personal Effectiveness for Quality Customer Service
Provides for the development of cognitive processes and behavioral skills needed to improve personal and work group effectiveness. Includes self-evaluation, personal mission statements, time management, communication and listening techniques, coaching, mentoring, group problem solving, and decision making techniques. Pre-requisite: QMS 101 or consent of instructor. Lecture: 1 credit (15 contact hours)
Components: Lecture

QMS 2012(1)  Course ID:006200

Understanding the Customer
Includes techniques for assessing internal and external customer needs and developing plans for delivery of quality customer service. Includes customer’s point of view, benchmarking quality customer service processes, and developing partnerships with customers. Pre-requisite: QMS 2011 or consent of instructor. Lecture: 1 credit (15 contact hours)
Components: Lecture

QMS 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 of Delivering Reinforcers
Principals 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

QMS 2025(0.6)  Course ID:005174

Feedback, Goals, and Applying Performance Management
The value and variety of feedback and its relationship to goal setting as the foundation of performance management. Pre-requisite: QMS 2024 or consent of instructor. Lecture: 0.6 credits (9 contact hours)
Components: Lecture
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Component</th>
<th>Credits</th>
<th>Pre-requisites</th>
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<tr>
<td>RAE 120(3)</td>
<td>Introduction to Chinese Culture</td>
<td>Lecture</td>
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<td>Bachelor admission requirements.</td>
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<tr>
<td>RCP 120(4)</td>
<td>Cardiopulmonary Anatomy and Physiology</td>
<td>Clinical</td>
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<td>RCP 110 with a grade of C or better.</td>
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<td>RCP 121(1)</td>
<td>Respiratory Care Practice I</td>
<td>Laboratory</td>
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<td>RCP 120(4) with a grade of C or better, and RCP 122 with a grade of C or better.</td>
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<td>RCP 122(4)</td>
<td>Fundamentals of Respiratory Care</td>
<td>Lecture</td>
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<td>RCP 125(4)</td>
<td>Cardiopulmonary Evaluation</td>
<td>Laboratory</td>
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<td>RCP 110 and BIO 139 with a grade of C or better, or consent of instructor.</td>
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<tr>
<td>RCP 130(3)</td>
<td>Pharmacology</td>
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<td>RCP 120(4) with a grade of C or better.</td>
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<tr>
<td>RCP 135(1)</td>
<td>Respiratory Pharmacology</td>
<td>Lecture</td>
<td>1</td>
<td>RCP 120(4) with a grade of C or better.</td>
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<td>RCP 150(2)</td>
<td>Clinical Practice I</td>
<td>Laboratory</td>
<td>0.5</td>
<td>Valid Health Care Provider CPR card.</td>
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<td>RCP 175(3)</td>
<td>Clinical Practice II</td>
<td>Laboratory</td>
<td>3</td>
<td>RCP 120 with a grade of C or better.</td>
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<tr>
<td>RCP 176(2)</td>
<td>Respiratory Care Practice II</td>
<td>Laboratory</td>
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<td>RCP 120(4) and RCP 122 with a grade of C or better.</td>
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<tr>
<td>RCP 180(3)</td>
<td>Respiratory Ventilation</td>
<td>Lecture</td>
<td>2</td>
<td>RCP 110 and BIO 139 with a grade of C or better.</td>
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<tr>
<td>RCP 185(2)</td>
<td>Introduction to Mechanical Ventilation</td>
<td>Lecture</td>
<td>1.5</td>
<td>RCP 120(4) with a grade of C or better.</td>
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<tr>
<td>RCP 195(4)</td>
<td>Patient-Ventilator System Management</td>
<td>Lecture</td>
<td>1.5</td>
<td>RCP 120(4) with a grade of C or better.</td>
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<tr>
<td>RCP 200(3)</td>
<td>Clinical Practice III</td>
<td>Lecture</td>
<td>3</td>
<td>RCP 120 with a grade of C or better.</td>
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<td>RCP 201(2)</td>
<td>Respiratory Care Practice III</td>
<td>Lecture</td>
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<td>RCP 120 with a grade of C or better.</td>
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<td>RCP 210(3)</td>
<td>Cardiopulmonary Pathophysiology</td>
<td>Lecture</td>
<td>2</td>
<td>RCP 120 with a grade of C or better.</td>
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</table>
RCP 212(3) Course ID:003797
Neonatal/Pediatric Respiratory Care
Provides a study of the special needs of the neonatal and pediatric patient with focus on fetal cardiopulmonary development, evaluation, assessment and treatment of cardiopulmonary conditions and diseases of the neonatal and pediatric patient, as well as equipment unique to this population. Pre-requisite: (RCP 185 and RCP 201) with a grade of C or better or Consent of Instructor. Pre-requisite or Co-requisite: RCP 190 with a grade of C or better or Consent of Instructor. Lecture: 2.5 credits (37.5 contact hours). Laboratory: 0.5 credits (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

RCP 214(3) Course ID:003798
Advanced Diagnostic Procedures
Prepares students to assist physician in advanced diagnostic, and therapeutic procedures. Pre-requisite: BIO 139 with a grade of C or better. Lecture: 2.5 credits (37.5 contact hours). Laboratory: 0.5 credits (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

RCP 225(3) Course ID:003799
Clinical Practice IV
Provides observation and practice of advanced cardiopulmonary evaluation techniques while improving efficiency in the ventilatory management of patients. Pre-requisite: RCP 200 with a grade of C or better. Clinical: 3 credits (180 contact hours).
Components: Clinical
Attributes: Technical

RCP 226(4) Course ID:004841
Respiratory Care Practice IV
Provides observation and practice in advanced cardiopulmonary evaluation techniques while improving efficiency in the ventilatory management of adult patients. Pre-requisite: [RCP 176 and RCP 185] with a grade of C or better] or Consent of Instructor. Clinical: 4 credits (240 contact hours).
Components: Clinical
Attributes: Technical

RCP 228(2) Course ID:003800
Preventive and Long-Term Respiratory Care
Covers prevention of cardiopulmonary disorders and care of individuals with long term cardiopulmonary disability. Addresses psychosocial and physical needs of clients with emphasis on improving the quality of life and cardiopulmonary reserve. Pre-requisite: [RCP 110 or (RCP 195 and RCP 210 and RCP 212 and RCP 226)] with a grade of C or better] or Consent of instructor. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical

RCP 240(3) Course ID:004844
Advanced Cardiopulmonary Evaluation
Addresses cardiopulmonary assessment including hemodynamic monitoring, pulmonary and 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: 2.15 credits (41.25 contact hours). Laboratory:.25 credit (15 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 and obtaining 85% or greater on the written exam will receive an American Heart Association ACLS provider card. Lecture: 1.5 credits (22.50 contact hours). Laboratory: 0.5 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

RCP 250(3) Course ID:003801
Clinical Practice V
Prepares students to participate in effective and efficient planning, managing and delivering respiratory care to diverse client populations in various settings. 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

RDG 020(3) Course ID:002286
Improved College Reading
Improves proficiency in reading comprehension, vocabulary, and critical thinking skills, and prepares students for college and career reading through individualized and/or group instruction practice. 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 030(3) Course ID:002287
Reading for the College Classroom
Improves critical reading skills by developing vocabulary techniques, active reading strategies, comprehension accuracy, and interpretation of visual elements in text. Applies theories and strategies taught in the course to college level materials. Pre-requisite: As determined by KCTCS Placement Policy, or successful completion of RDG 020. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - Reading, Course Also Offered in Modules

RDG 041(1) Course ID:006805
Reading Laboratory
Designed to improve reading comprehension, vocabulary, and critical thinking skills. Strategies taught in this course will be applied to college level materials. Pre-requisite: Compass score 81-83. Lab: 1.0 credit (15 contact hours).
Components: Laboratory
Attributes: Remedial - Reading

RDG 066(4) Course ID:016767
Introduction to College Reading
Improves proficiency in reading comprehension, critical thinking skills, and critical reading skills by developing vocabulary techniques, active reading strategies, comprehension accuracy, and interpretation of visual elements in text. Prepares students for college and career reading through individualized and/or group instruction and practice. Applies theories and strategies taught in the course to college and career reading materials. Pre-requisite: Current KCTCS placement policy. Lecture: 4.5 credits (60 contact hours).
Components: Lecture
Attributes: Supplemental Reading

RDG 100(1 - 3) Course ID:015658
Reading Workshop
Improves reading comprehension and vocabulary of expository materials by improving student's comprehension process and reading-related study skills. Applies strategies and skills taught in the course are applied to college level materials. Pre-requisite: KCTCS Placement Policy. Lecture: 1.0-3.0 credits (15-45 contact hours).
Components: Lecture
Attributes: Other, Supplemental Reading

RDG 185(3) Course ID:000301
College Reading
Designed to improve critical reading, thinking, and writing at the college level by identifying the components of expository, persuasive, argumentative, and research text, including the author's use of tone, purpose, biased language and writing patterns. Applies strategies to college level text. Pre-requisite: KCTCS Placement Policy. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Supplemental Reading

RDG 201(0.5) Course ID:006737
Active Reading
Applies active reading, metacognitive, self-evaluation, and reading rate strategies for proficiency in reading comprehension. Includes topics such as the reading process, self-monitoring and self-correcting comprehension, and adjusting reading strategies for various comprehension purposes. Pre-requisite: As determined by KCTCS Placement Policy. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture
Attributes: Remedial - Reading

RDG 202(0.75) Course ID:006738
Transitions, Thought Patterns
Construct meaning from texts through analyzing transitions and patterns of organization to improve comprehension and critical thinking skills. Pre-requisite: As determined by KCTCS Placement Policy. Lecture: .75 credits (11.25 contact hours).
Components: Lecture
Attributes: Remedial - Reading

RDG 203(1) Course ID:006739
Basics of Argument
Recognize basic argument components, analyze contradictions to prior learning, and draw valid conclusions about claims and supports for claims to improve critical reading and thinking skills. Use main ideas to accurately summarize texts. Pre-requisite: As determined by KCTCS Placement Policy. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Remedial - Reading

RDG 204(0.75) Course ID:006740
Words and Visual Elements
Expands vocabulary through examining word parts and context clues, and infers tone and purpose through word combinations. Constructs meaning from visual elements to improve comprehension of text. Pre-requisite: As determined by KCTCS Placement Policy. Lecture: .75 credits (11.25 contact hours).
Components: Lecture
Attributes: Remedial - Reading

RDG 0301(0.75) Course ID:006741
Critical Reading
Uses active learning, prior knowledge, and metacognitive strategies to quickly enhance comprehension. Uses active learning, prior knowledge, and self-assessment strategies to quickly enhance comprehension of text. Pre-requisite: As determined by KCTCS Placement Policy, or successful completion of RDG 020. Lecture: .75 credits (11.25 contact hours).
Components: Lecture
Attributes: Remedial - Reading
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<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Credits</th>
<th>Course Description</th>
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<tr>
<td>REA 101(3)</td>
<td>Introduction to Religious Studies</td>
<td>3 credits</td>
<td>Introduces students to the study of religion, emphasizing the varieties, differences, and similarities of religious experience and expression. Examines the interaction between religious experience and expression and social and cultural contexts through study of selected examples. Lecture: 3 credits (45 contact hours).</td>
</tr>
<tr>
<td>REL 101(3)</td>
<td>Introduction to Religious Studies</td>
<td>3 credits</td>
<td>Introduces students to the study of religion, emphasizing the varieties, differences, and similarities of religious experience and expression. Examines the interaction between religious experience and expression and social and cultural contexts through study of selected examples. Lecture: 3 credits (45 contact hours).</td>
</tr>
<tr>
<td>REL 121(3)</td>
<td>Introduction to the New Testament</td>
<td>3 credits</td>
<td>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).</td>
</tr>
</tbody>
</table>
REL 130(3) Course ID:000360
Introduction to Comparative Religion
Introduces students to a comparative analysis of world religions, emphasizing beliefs, rituals, artistic expressions, and cultural and social organization. Includes both Eastern and Western religions. (Same as ANT 130). Lecture: 3 credits (45 contact hours).
Components: Course Equivalents: ANT 130
Attributes: Cultural Studies, AH - Arts and Humanities

REL 135(3) Course ID:007063
Christianity in Cultural Context
Surveys the historical and theological movements in Christianity from the 1st century to the mid-16th century. Emphasis will be placed on the interaction of Christian institutions and religious movements with other prevailing social, cultural, and political institutions within this timeframe. Lecture: 3.0 credits (45 contact hours).
Components: Course Equivalents: ANT 135
Attributes: Cultural Studies, AH - Arts and Humanities

REL 150(3) Course ID:007409
Comparative Ethics of Major World Religions
Examines central theological teachings, modes of ethical reasoning, key ethical virtues and norms of major religious traditions from both Eastern and Western Religions. Considers the lives, sacred stories, dogma and texts of central religious figures as part of the context for moral thinking in a global setting. Lecture: 3.0 credits (45 contact hours).
Components: Course Equivalents: PHI 170
Attributes: Cultural Studies, AH - Arts and Humanities

REL 170(3) Course ID:005523
Philosophy of Religion
Introduces students to issues in philosophy of religion including defining the concept of God, arguments for and against the existence of God, the relation between faith and reason, the nature of religious experience, the problem of evil, and immortality. Lecture: 3 credits (45 contact hours).
Components: Course Equivalents: PHI 170
Attributes: AH - Arts and Humanities, Other

REL 240(3) Course ID:006945
Life and Teaching of Jesus
Investigates the life and teachings of Jesus of Nazareth through a critical analysis of the ancient sources and modern scholarly reconstructions. Lecture: 3.0 credits (45 contact hours).
Components: Course Equivalents: PHI 170
Attributes: AH - Arts and Humanities, 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: Course Equivalents: PHI 170
Attributes: Other

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: Course Equivalents: Other
Attributes: Other

RES 298(1 - 4) Course ID:002271
Selected Topics in Respiratory Care: (Topic)
A special project or experience in Respiratory Care will be selected to enhance core material in the Respiratory Care Program. It provides the student and opportunity for independent study and specialized instruction as approved by the instructor. This course may be repeated to a maximum of 6 hours. Lecture: varies.
Components: Lecture
Attributes: Technical

SCI 110(3) Course ID:017163
Science and Society
Introduces contemporary issues in science and its effects on the public sphere. Critically evaluate scientific media as it relates to student's lives and attain a basic understanding behind the philosophy of science. Discuss relevant topics including, but not limited to: Climate Change, Genetically Modified Organisms, Vaccination, Nutrition, Pseudoscience and appropriate Experimental Design. This course is not intended for STEM students. Pre-requisite: College Readiness as indicated by CPE in reading and writing. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - 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

SDC 100(1) Course ID:004847
College Survival Seminar
This course is designed to introduce new students to college in order to facilitate a successful college experience. Students will discover campus resources and support services available to them. Students will be introduced to career and life planning, study strategies, coping skills (i.e., stress management, interpersonal relationships), team projects, activities aimed at self discovery, and issues that impact college campuses and our global society that are important to the development of the modern college student. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Other, Enrichment 1st Year Experience

SDC 102(1) Course ID:004948
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, Enrichment Course Other

SDC 104(1) Course ID:006187
Transfer Planning
Increases knowledge, personal awareness, and self-efficacy related to the transfer process after completion of a two year degree. Provides information, decision-making tools, transition skills, and support to navigate the transfer process, and concluding with an individualized transfer plan to ensure successful matriculation to a four-year institution. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical

SDC 105(1) Course ID:004849
Career Planning Seminar
Students will become more knowledgeable about themselves and career options. Self-assessments and vocational inventories measuring interests, work values, skills and abilities will be administered to students. Students will learn how to research careers, career alternatives and employment trends. 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: Enrichment Career Counseling, Technical

SDC 109(1) Course ID:005053
Employability Skills
This course is designed to prepare students for the world of work. Students will be introduced to self and career assessment, employability skills (i.e., the application process, resume writing, interviewing, and follow-ups), and the job market and job search strategies. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Enrichment Career Counseling, Technical

SDC 151(3) Course ID:017302
Facilitating Career Development I
Provides knowledge and skills instruction in helping skills, training group facilitator skills, career development theories and techniques, formal and informal career assessments, ethics, cultural competence, career information, and technological resources for the career services provider. Covers the first half of the Facilitating Career Development curriculum of the National Career Development Association. Pre-requisite: College-level reading and writing skills as determined by the KCTCS Assessment and Placement Policy, or completion of required transitional courses in Reading and English. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

SDC 152(3) Course ID:017303
Facilitating Career Development II
Provides knowledge and skills instruction in employability skills and job search coaching for the career services provider, as well as: program planning and evaluation, consultation and supervision, promotion and public relations, history and development of the workforce system and career development profession, business services, and providing services to populations with special needs (people with disabilities, justice-involved, school-aged youth). Discusses next steps in professional development: preparation for certification, education pathways, professional associations, and continuing education. Covers the second half of the Facilitating Career Development curriculum of the National Career Development Association. Pre-requisite: SDC 151 with a C or higher grade. Co-requisite: SDC 153 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

SDC 153(1) Course ID:017304
Career Facilitator Practicum
Provides supervised workplace learning experiences in career facilitation, in a college/university, school, or community agency setting, applying knowledge and skills gained from the Facilitating Career Development curriculum. Pre-requisite: SDC 151 with a C or higher grade. Co-requisite: SDC 152. Practicum: 1 credit hour (60-90 contact hours).
Components: Practicum
Attributes: Technical
SFD 101(3) Course ID: 000823
Sign Language I
Includes a functional-notational approach to a beginning competency in Sign Language. Incorporates syntax, grammar, non-manual markers (behaviors) of sign language, and cultural information. (After an initial orientation period, no verbal communication will be used in the classroom.). Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Foreign Language, Cultural Studies

SFD 102(3) Course ID: 000804
Sign Language II
Includes a functional-notational approach designed to follow SFD 101 that will enhance student’s knowledge of Sign Language and expand their understanding and appreciation of the people who use it. Pre-requisite: SFD 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Foreign Language, Cultural Studies

SFD 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: SFD 102. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Foreign Language, Cultural Studies

SFD 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: SFD 203. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Foreign Language, Cultural Studies

SEMT Small Engine Repair
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: 2 credits (150 contact hours).
Components: Practicum

SSF 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

SSF 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

SSF 102(3) Course ID: 006733
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: SFD 203, or Instructor Consent. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

SSF 204(3) Course ID: 004436
Introduction to GIS and GPS
This course provides an overview of the principles and practices of Geographic Information Systems (GIS) and Global Positioning Systems (GPS). The GIS portion of the course will deal with issues of spatial data models, database design, introductory and intermediate GIS operations, and case studies of real world GIS applications. The GPS portion of the course focuses on GPS technology, software applications. Lecture: 3 credits (45 contact hours). Laboratory: 1 credit (45 contact hours).
Components: Lecture
Attributes: Technical

SSF 290(1 - 4) Course ID: 000920
Professional Ethics
This course is designed for students interested in careers in different fields. Emphasis is on the formation and maintenance of social and personality 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

SSF 291(3) Course ID: 000844
Social Interaction
Introduces 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
SUR 109(3)  
Course ID: 0005375  
Introduction to Surgical Technology  
Provides a brief overview of the history of surgery and an in-depth introduction of the role and responsibilities of the surgical technologist, an integral health care professional in the delivery of preoperative 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 pertaining to preparation for the surgical technologist, basic principles of aseptic technique, sterilization, surgical scrub, gown and gloving and basic instruments used in surgery along with correlating the impact of microbiology in relationship to the practice of sterile technique and infection control in the operative setting. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

SUR 110(9)  
Course ID: 0005470  
Surgical Technology Fundamentals  
Incorporates safety, 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, obstetrics, gynecology, thoracic surgery, vascular surgery, orthopedics and trauma. Incorporates OSHA safety standards, aseptic technique, and duties of both the scrubbed and circulating technologist during a surgical procedure. If prerequisite, the student must achieve a grade of "C" or greater.  
Pre-requisite: Minimum "C" grade in [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). Co-requisite: SUR 102 and SUR 125. Pre-requisite OR Co-requisite: SUR 130, CPR (for Healthcare Providers) must be completed prior to the first surgical technology skills practicum course and must remain current throughout the Surgical Technology Program.  
Components: Lecture  
Attributes: Technical

SUR 102(3)  
Course ID: 017647  
Surgical Technology Fundamentals Lab  
Provides opportunity for demonstration of skills required to prepare the patient, operating room, basic equipment, and supplies; and to function as a member of an operating room team. Incorporates OSHA safety standards, aseptic technique, and duties of both scrubbed and circulating technologist during a surgical procedure.  
Pre-requisite: Minimum "C" grade in [BIO 135 or (BIO 137 and BIO 139)] and (AHS 115 or CLA 131 or OST 103) and (BIO 225 or BIO 226 or BIO 227 or BIO 118). Pre-requisite OR Co-requisite: SUR 130, CPR (for Healthcare Providers) must be completed prior to the first surgical technology skills practicum course and must remain current throughout the Surgical Technology Program. Laboratory: 1 credit (90 contact hours).  
Components: 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 scrubbed and circulating technologist during a surgical procedure. All prerequisites must be achieved with a grade of "C" or greater.  
Pre-requisite: [BIO 130 or 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). Pre-requisite OR Co-requisite: SUR 130, CPR (for Healthcare Providers) must be completed prior to the first surgical technology skills practicum course and must remain current throughout the Surgical Technology Program. Laboratory: 1 credit (45 contact hours).  
Components: Laboratory  
Attributes: Technical

Minimum grade of "C" in [SUR 100 or (SUR 109 and SUR 110)] and SUR 125 and SUR 130. Co-requisite: SUR 201. Lecture: 9.0 credits (135 contact hours).  
Components: Lecture  
Attributes: Technical

SUR 202(11)  
Course ID: 017648  
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. Introduces the fundamental principles of the clinical use of drugs. Emphasizes the role and responsibility of the surgical technologist related to drugs, a review of basic mathematical skills, a thorough knowledge of the systems of measurement, and conversion and application of skills to perform dosage calculations. Presents information related to medicines in common use in the surgical setting.  
Pre-requisite: Minimum C grade in [SUR 200 or SUR 109 and SUR 110] and SUR 125. Co-requisite: SUR 201. Lecture: 11 credits (165 contact hours).  
Components: Lecture  
Attributes: Technical

SUR 275(2)  
Course ID: 002053  
Surgical Technology Advanced Practicum  
Provides an advanced experience in a healthcare setting performing the duties of a scrubbed and/or circulating technologist during an assigned surgical procedure with limited supervision.  
Pre-requisite OR Co-requisite: Minimum grade of "C" in SUR 202 and SUR 201. Practicum: 2.0 credits (120 contact hours).  
Components: Practicum  
Attributes: Technical

SUR 280(5)  
Course ID: 004246  
Department Consent Required  
Surgical Anatomy  
Provides accurate information about the structure and function of the human body. Intended for students who are pursuing a career as a Surgical First Assistant.  
Pre-requisite: Surgical Technologist or CNOR, Co-requisite: SUR 284 & SUR 295. Lecture: 5.0 credits (75 contact hours).  
Components: Lecture  
Attributes: Technical

SUR 282(3)  
Course ID: 004247  
Perioperative Bioscience  
Promotes an understanding of microbial physiology which precedes the understanding of disease transmission and/or prevention; Emphasizes standard precautions and infection control; Contains pharmacology section designed to promote understanding of effects of pre, post and operative drugs; Includes anesthesia section designed to promote understanding of general principles/techniques and drugs used by anesthesia and effects on the patient; Introduces the student to the following; diagnostic testing such as radiology, laboratory, cardiographics, wound healing, nutrition perioperatively, fluid and electrolyte balance, and techniques in maintaining homeostasis.  
Pre-requisite: Program admission and student must be certified Surgical Technologist or an RN with operating room experience. Student must present documentation of certification.  
Components: Lecture  
Attributes: Technical
**Practicum: 4.0-5.0 credits (240-300 contact hours)**

Surgical First Assistant Clinical: Provides opportunity for application of techniques in a healthcare setting performing the duties of a scrubbed assistant in a clinical setting under the supervision of a qualified preceptor. Follows the Commission on Accreditation of Allied Health programs Surgical Assistant Core Curriculum related to the nature of the cases and the duties involved. Pre-requisite: Program admission.

Components: Laboratory, Lecture

Attributes: Technical

**SUR 295(1) Course ID:004250**

Surgical First Assistant Practicum: Involves advanced training in the preparative, operative, and postoperative phases of surgery. Exposes students to wide variety of surgical procedures. Emphasizes surgical anatomy, along with critical thinking skills, in every surgical procedure performed. Under the supervision of a surgeon who is responsible for overseeing the clinical educational experience of the student. Pre-requisite: SUR 280 and SUR 284. Co-requisite: SUR 296. Practicum: 1 credit (45 contact hours).

Components: Clinical

Attributes: Technical

**SUR 296(3) Course ID:000666**

**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 orthotrianglogic, plastic and reconstructive, and oral and maxillofacial procedures. Practicum: 2 credits (120 contact hours).

Components: Practicum

Attributes: Technical

**SUR 211(2) 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 genitorinary, orthopedic, neurosurgery, cardiovascular, peripheral vascular, and ophthalmic surgical procedures. Pre-requisite: SUR 211. Co-requisite: SUR 200. Practicum: 4.0-5.0 credits (240-300 contact hours)

Components: Practicum

**Course ID:004248**

Principles of Surgical Assisting: Introduces the student to the theory involved in surgical assisting; Incorporates anatomy, surgical techniques, aseptic techniques, draping, positioning, suturing, safety, and duties of the surgical team. Pre-requisite: Program admission. Student must be a certified Surgical Technologist or an RN with operating room experience OR consent. Co-requisite: SUR 280 & SUR 295. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (45 contact hours).

Components: Laboratory, Lecture

Attributes: Technical

**Sur 102(3) Course ID:0016180**

Sustainable Built Environment: Introduces the ideas of sustainability in the built environment, our history of construction and expansion, and buildings and how they interact with the natural environment. Explores issues from the perspective of sustainable planning, design, and construction issues across disciplines. Pre-requisite: Current KCTCS placement scores for College level reading and writing. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: SB - Social Behavior Science, Other

**SUS 201(3) Course ID:0016181**

Sustainable Societies: Examines sustainability concepts, values, and institutional contexts as they are manifested in societal frameworks in the U.S. and globally. Topics include urban agriculture, individual or community based environmental conservation efforts, corporate sustainability programs, as well as cultural and societal implications of resource allocations as they pertain to equity and social justice. Pre-requisite: Current KCTCS placement scores for College level reading and writing. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: SB - Social Behavior Science, Other

**SUS 202(3) Course ID:0016182**

Sustainable Urban Systems: Investigates the physical and social urban infrastructure networks as they relate to sustainability. Examines the institutions, as well as the formal and informal rules, that use, manage, or govern urban physical and social infrastructures. Considers the role of private groups, non-profits, and other organizations and the networks and systems of support that exists for environmental and sustainable-oriented activity. Pre-requisite: SUS101 Intro. To Sustainability & SUS201 Sustainable Societies. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: SB - Social Behavior Science, Other

**SWK Social Work**

**SWK 124(3) Course ID:000584**

Introduction to Social Services: Introduces social welfare concepts and philosophies. Examines the profession of social work and its philosophy and value commitments within social welfare. Covers public and private service delivery systems. (Required of social work majors and open to all others.) Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: SB - Social Behavior Science, Other

**SWK 211(3) Course ID:0005584**

Cultural Diversity in Human Services: Explores current and historical cultural diversity in human services as it applies to clients from various cultural groups. Focuses on cultural self awareness and cultural competence as it pertains to human services professionals and client relationships. Draws attention to dominant and minority cultural norms, attitudes and belief systems including the culture of poverty. Lecture: 3 credits (45 contact hours).

Components: Lecture

Course Equivalents: HHS 220

Attributes: Technical

**SWK 222(3) Course ID:0000484**

Development of Social Welfare: Includes cultural traditions, value orientations, and political and economic forces which have contributed to the emergence of present social welfare policies and systems in the United States. (Required of social work majors and open to all others.) Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Technical

**SWK 255(3) Course ID:0005584**

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 100 or PY 110 or consent of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture

Course Equivalents: HHS 211

Attributes: Technical

**SWK 268(3) Course ID:0003084**

Crisis Intervention: Focuses on crisis intervention theory, suicide prevention, and risk assessment techniques. Covers risk assessment protocols, crisis triage, de-escalation and referral. Introduces clinical, ethical and legal aspects. Pre-requisite: PSY 100 or PY 110 or permission from instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture

Course Equivalents: HHS 212

Attributes: Technical

**SWK 275(3) Course ID:000736**

The Family: Covers the nature and structure of family systems and examination of major family issues. Includes discussion in patterns of family interaction with attention paid to resources designed to meet family needs. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: Technical

**SWK 279(3) Course ID:000736**

Criminology: The history, nature, and extent of crime are studied, including trends and methods of treatment in contemporary society. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: Technical

**SWK 281(3) Course ID:000734**

Psychology of Aging: A study of the aging process with emphasis on the needs, roles, and attitudes of seniors in our society. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: Technical

**SWK 282(3) Course ID:000734**

The Family: Covers the nature and structure of family systems and examination of major family issues. Includes discussion in patterns of family interaction with attention paid to resources designed to meet family needs. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: Technical

**SWK 283(3) Course ID:000734**

Social Work: The Family: Covers the nature and structure of family systems and examination of major family issues. Includes discussion in patterns of family interaction with attention paid to resources designed to meet family needs. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: Technical

**SWK 284(3) Course ID:000734**

Cultural Diversity in Human Services: Explores current and historical cultural diversity in human services as it applies to clients from various cultural groups. Focuses on cultural self awareness and cultural competence as it pertains to human services professionals and client relationships. Draws attention to dominant and minority cultural norms, attitudes and belief systems including the culture of poverty. Lecture: 3 credits (45 contact hours).

Components: Lecture

Course Equivalents: HHS 220

Attributes: Technical

**SWK 222(3) Course ID:0000484**

Development of Social Welfare: Includes cultural traditions, value orientations, and political and economic forces which have contributed to the emergence of present social welfare policies and systems in the United States. (Required of social work majors and open to all others.) Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Technical

**SWK 255(3) Course ID:0005584**

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 100 or PY 110 or consent of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture

Course Equivalents: HHS 211

Attributes: Technical

**SWK 268(3) Course ID:0003084**

Crisis Intervention: Focuses on crisis intervention theory, suicide prevention, and risk assessment techniques. Covers risk assessment protocols, crisis triage, de-escalation and referral. Introduces clinical, ethical and legal aspects. Pre-requisite: PSY 100 or PY 110 or permission from instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture

Course Equivalents: HHS 212

Attributes: Technical

**SWK 275(3) Course ID:000736**

The Family: Covers the nature and structure of family systems and examination of major family issues. Includes discussion in patterns of family interaction with attention paid to resources designed to meet family needs. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: Technical

**SWK 279(3) Course ID:000736**

Criminology: The history, nature, and extent of crime are studied, including trends and methods of treatment in contemporary society. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: Technical

**SWK 281(3) Course ID:000734**

Psychology of Aging: A study of the aging process with emphasis on the needs, roles, and attitudes of seniors in our society. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: Technical
TA 195(1 - 3)  Course ID:004554  Instructor Consent Required
Special Projects in Theatre Arts (Project Title)
Projects in Theatre Arts that are not otherwise covered by or extend beyond the scope of TA 190, TA 191 or other theatre arts course offerings. Projects may include, but are not limited to, practical application of techniques in special circumstances; special theatrical tours; research projects that will be used as the basis of a practical application project; or theatrical workshop projects designed to cover a special area of practice. Projects will be selected by the instructor and may be repeated with different titles for up to six credit hours. Lecture: 1-3 credits (15-45 contact hours); Laboratory: 1-3 credits (60-180 contact hours). Pre-requisite: Consent of Instructor.
Components: Laboratory, Lecture
Attributes: Other

TEC Technical Communication

TEC 200(3)  Course ID:002073
Technical Communications
Focuses on written and oral communications in a technical environment, including a review of grammar, usage, mechanics, and punctuation. Emphasizes preparing business communications such as letters and application materials, creating technical reports and sets of instructions, creating proposals or presentation materials, and developing appropriate technical communication styles for various audiences. Covers professional use of email, social media, websites, and other electronic resources. Pre-requisite: Placement in college level writing or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Same As Offering: TEC 200
Attributes: Other

TEC 200(3)  Course ID:002073
Technical Communications
Focuses on written and oral communications in a technical environment, including a review of grammar, usage, mechanics, and punctuation. Emphasizes preparing business communications such as letters and application materials, creating technical reports and sets of instructions, creating proposals or presentation materials, and developing appropriate technical communication styles for various audiences. Covers professional use of email, social media, websites, and other electronic resources. Pre-requisite: Placement in college level writing or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Same As Offering: TEC 200
Attributes: Other

TES Teaching English Speakers

TES 101(3)  Course ID:017379
Second Language Literacy & Acquisition
Covers theory, research, and pedagogy associated with the development of literacy in two languages, either simultaneously or successively. Focuses on how individuals and groups become literate in English as an additional or second language. Explores political, cultural, social, and contextual, as well as cognitive, textual, and educational issues that arise in acquiring and using a second literacy. Introduces current research in second language acquisition, especially of English. Focuses on prominent research trends in the study of the language learner, the process of acquisition, and the interaction of learner, language, and context. Pre-requisites: TES 100, ANT 160, COM 254. 3 credits (45 contact hours).

Components: Lecture

TES 102(3)  Course ID:017380
TESOL Methods & Practice
Surveys current theory and practice in teaching English to non-native speakers with foci on classroom teaching and design. Emphasizes awareness of teaching behaviors and their consequences in English classrooms for native and non-native speakers of English. Explores traditional and innovative approaches for integrating instructional technology and multimedia, designing of classroom materials for specific purposes, and preparing procedures for teaching all language skills at various educational levels. Surveys instruments and classroom teaching behavior and provides practice in the use of observation instruments. Pre-requisites: ANT 160, COM 254, TES 100. 3 credits (45 contact hours).

Components: Lecture

TES 103(3)  Course ID:017381
Second Language Teaching w/Lab
Considers trends, issues, research, and exploration in second language teaching, as well as language learner assessment and testing. Provides a balance between observation and practical teaching experience. Provides opportunities for students to plan, teach, and reflect on lessons through a practicum experience. Emphasizes application of theory and pedagogical knowledge gained from course work. Develops skills to reflect on teaching and its consequences for learners. Pre-requisites: ANT 160, COM 254, TES 100. Integrated Lecture: 2 credits (30 contact hours). Integrated Lab: 1 credit (30 contact hours). Integrated Lecture: 1 credit (45 contact hours).

Components: Integrated Laboratory, Integrated Lecture
Attributes: Other

THA Theatre

THA 101(3)  Course ID:000925
Introduction to Theatre: Principles and Practice
Covers key concepts in teaching English as a second or foreign language. Offers a broad introduction to the knowledge and skills needed to become a professional teacher of ESL or EFL. Pre-requisite: ENG 102. 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

THA 127(3)  Course ID:002264
Acting Techniques
Uses movement exercises, sensory work, theatre games and basic stage combat exercises to heighten physical awareness, release personal blocks, and discover the experience of being truthful with fellow actors. Continues with students moving on to individual work to establish physical techniques they will use when working on a production. Provides an exploration of physical and emotional awareness and development of a more creative use of their imaginations. Lecture: 1.0 credit hour (15 contact hours); Lab: 2.0 credit hours (30 contact hours).

Components: Laboratory, Lecture
Attributes: Other

THA 141(3)  Course ID:006781
Costuming & Make-up for the Stage
Surveys current theory and practice in teaching English to non-native speakers with foci on classroom teaching and design. Includes a fundamental approach to auditioning and acting for the camera. Pre-requisite: THA 126. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

THA 150(3)  Course ID:002265
Fundamentals of Production
Surveys current theory and practice in teaching English to non-native speakers with foci on classroom teaching and design. Includes a fundamental approach to auditioning and acting for the camera. Pre-requisite: THA 126. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

THA 190(1)  Course ID:000031
Instructor Consent Required
Production Practicum
Provides study and practice of production techniques through rehearsal and performance. Practicum: 1.0 credit (45 contact hours).

Components: Practicum
Attributes: Technical

THA 191(1)  Course ID:002266
Instructor Consent Required
Performance Practicum
Provides study and practice of acting and directing through rehearsal and performance. Practicum: 1.0 credit (45 contact hours).

Components: Practicum
Attributes: Other

THA 193(1)  Course ID:015597
Performance Practicum
Provides study and practice of acting and directing through rehearsal and performance. Practicum: 1.0 credit (45 contact hours).

Components: Practicum
Attributes: Other

THA 196(3)  Course ID:004032
Instructor Consent Required
Summer Theatre Workshop
Provides study and practice of acting and directing through rehearsal and performance. Practicum: 1.0 credit (45 contact hours).

Components: Laboratory
Attributes: Technical

THA 200(3)  Course ID:003810
Introduction to Dramatic Literature
Surveys current theory and practice in teaching English to non-native speakers with foci on classroom teaching and design. Includes a fundamental approach to auditioning and acting for the camera. Pre-requisite: THA 126. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

THA 203(4)  Course ID:004433
Acting on the Camera
Surveys current theory and practice in teaching English to non-native speakers with foci on classroom teaching and design. Includes a fundamental approach to auditioning and acting for the camera. Pre-requisite: THA 126. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical
THA 226(3) Course ID:000791
Acting II: Scene Study (Realism)
Concentrates on several components of the acting process: preliminary study in modern acting theories, Stanislavski to the present; textual analysis, character study and scene work; studio exercises aimed at refining rehearsal skills for the actor. Pre-requisite: THA 126 or Consent of Instructor. Lecture: 2.0 credit hours (30 contact hours). Laboratory: 1.0 credit hour (15 contact hours).
Components: Laboratory, Lecture
Attributes: Other

THA 227(3) Course ID:002267
Acting III: Scene Study (Styles)
Introduces the actor to a performance style other than realism while continuing to develop the actor's skills in analysis and rehearsal. Pre-requisite: THA 226 or Consent of Instructor. Lecture: 2.0 credit hours (30 contact hours). Lab: 1.0 contact hour (15 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

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: Other

THA 250(3) Course ID:006782
Stage Electrics
Provides a comprehensive study of sound production and stage lighting in principle and practice. It concentrates on the fundamentals of circuits, instrumentation, and operation of stage lights and sound. Lecture: 1.0 credit (15 contact hours), Lab: 2.0 credits (90 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

THA 283(3) Course ID:000111
American Theatre
Surveys American theatre history, giving particular emphasis to the late nineteenth and twentieth centuries, examining both theatre practice and dramaturgy and placing them within an historical, social, and cultural context. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

TLH Telehealth Technician Assistant

TLH 200(4.5) Course ID:016839
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 credits (30 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. Lecture/Lab: 6 credits (150 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

UST Unmanned Systems Technology

UST 100(3) Course ID:017195
Intro to Unmanned Systems Technology
Examine the foundations of unmanned systems technology (UST), including history, elemental systems including payloads, data links, ground support equipment, classes of unmanned systems, categories, basic components, applications, mission planning and control, and launch/ recovery systems. Lecture: 3 credit hours (45 contact hours).
Components: Lecture
Attributes: Technical

UST 102(1) Course ID:017196
UST Career Exploration
Explore different careers where the small unmanned systems are utilized. Identify specific fields of interest in which small unmanned systems are used and explain how the technology is integrated into the field. Lecture: 1 credit hour (15 contact hours).
Components: Lecture
Attributes: Technical

UST 105(3) Course ID:017197
Unmanned Systems Safety and Regulations
Examines the current legal considerations of unmanned systems technology operations, provides an outlook on future considerations, and informs students on existing and trending unmanned systems technology related safety standards and regulations. Lecture: 3 credit hours (45 contact hours).
Components: Lecture
Attributes: Technical

UST 107(3) Course ID:017198
Commercial Drone Operations
Reviews commercial pilot license certification process and testing procedures required by FAA 107 regulations including air traffic control towers, safety protocols, risk management, weather air space, maintenance and operations of aerial vehicles, and mission plans. Prepares students for FAA-107 certification. Lecture: 3 credit hours (45 contact hours).
Components: Lecture
Attributes: Technical

UST 170(3) Course ID:017199
Drone Media Applications
Utilizes small unmanned systems to record events related to photography and real estate. Pre-requisite: UST 107 or Consent of Instructor. Lecture: 3 credit hours (45 contact hours).
Components: Lecture
Attributes: Technical

UST 200(4) Course ID:017306
Drone Fabrication and Repair
Introduces drone fabrication, including safety principals, component selection, heating applications, and basic measurements using the metric system. Emphasizes designing, construction, testing, troubleshooting, and repairing of drones. Pre-requisite: College Ready in all areas. Pre-requisite or Co-requisite: UST 100. Lecture: 3 credits (45 contact hours), Lab: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

UST 210(2) Course ID:017588
Visual Observer Operations
Prepares students to be a Visual Observer (VO) in day time unmanned aircraft systems (UAS) missions by monitoring drone flights, assessing risk and mitigation, and communicating flight operations to support the remote pilot in command. Demonstrate an understanding of VO types, visual techniques, and possible hazards that ensure safe day time drone operations. Pre-requisite or Co-requisite: UST 100 AND UST 105 or Consent of Instructor. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical

UST 211(2) Course ID:017589
Night Time VO Operations
Prepares students to be a Visual Observer (VO) in night time unmanned aircraft systems (UAS) missions by monitoring drone flights, assessing risk and mitigation, and communicating flight operations to support the remote pilot in command. Demonstrate an understanding of visual illusions, visual sensitivity, and physiological conditions that ensure safe night time drone operations. Pre-requisite or Co-requisite: UST 210 or Consent of Instructor. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical

UST 220(2) Course ID:017200
First Responder Applications
Examines fundamental principles of unmanned systems technologies, capabilities, regulations, legal responsibilities, cost and benefit consideration for potential use in law enforcement, fire, rescue, emergency medical and disaster response applications. Pre-requisite: UST 107 or Consent of Instructor. Lecture: 2 credit hours (30 contact hours).
Components: Lecture
Attributes: Technical

UST 221(1) Course ID:017201
Crew Resource Management
Provides students with an introduction to the principles and concepts of crew resource management (CRM) through interactive discussion and scenario based analysis as it relates to unmanned systems operations. Discusses CRM markers, principles and concepts of CRM, team building, information transfer, problem solving, risk management and decision making, communications process, conflict resolution and maintaining situational awareness when dealing with UAS automated systems. Pre-requisite: UST 107 or Consent of Instructor. Lecture: 1 credit hour (15 contact hours).
Components: Lecture
Attributes: Technical

UST 290(1 - 3) Course ID:017203
UST Flight Mastery
Develops skills in the flight of small unmanned systems, covering pre-flight procedures, take-off, landing, hovering techniques, operation/navigation, crew resource management, and post-flight procedures. Laboratory: 1-3 contact hours (30-90 contact hours).
Components: Laboratory
Attributes: Technical

UST 291(1 - 3) Course ID:017614
Selective Topics in UST
Explores concepts and/or skills from special areas of interest in unmanned systems technology. May be repeated with different topics to a maximum of 6 credit hours. Pre-requisite: UST 100 or Consent of Instructor. Pre-requisite or Co-requisite: UST 107 or Consent of Instructor. Lecture: 1-3 credits (15-45 contact hours).
Components: Lecture
Attributes: Technical

UST 295(1 - 6) Course ID:017204
UST Learning Experience
Provides on-the-job experience in small unmanned systems, requiring 40 clock/hours per credit hour of appropriate experience approved by the instructor; requires a learning contract, signed by the students, instructor, and supervisor. Pre-requisite: UST 107 or Consent of Instructor. Laboratory: 1-6 credit hours (30-180 contact hours).
Components: Laboratory
Attributes: Technical

UST 299(1) Course ID:017202
UST Capstone Studies
Creates employment related documents, demonstrates proper interviewing skills, and explores employment and careers in the unmanned systems technology area. Pre-requisite: UST 107 or Consent of Instructor. Lecture: 1 credit hour (15 contact hours).
Components: Lecture
Attributes: Technical

355
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 psychology; color harmonies and schemes using color wheels; RGB, CMYK, Pantone and ICC Profiles; and color correction. Students must receive a letter grade of "C" or better. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

VCA 120(3) Course ID:002116
Digital Photography I
Introduces the skills and techniques to capture and process digital photographs. Emphasizes basic digital camera operations and lighting techniques. Includes proper techniques to import and organize photographs. Introduces basic Photoshop skills to manipulate and enhance digital photographs. Includes discussions on appropriate resolutions and file formats. Students must receive a letter grade of "C" or better. Lecture/Lab: 3.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

VCA 131(3) Course ID:016774
Digital Photography II
Explores advanced skills and techniques to capture digital photographs using various camera functions and lenses. Includes proper scanning techniques and file formats. Explores advanced skills in Adobe Photoshop to manipulate photographs for interesting compositions. Introduces RAW shooting and Camera RAW in Photoshop. Explores proper presentation skills for professional photography displays. Students must receive a final grade of "C" or better to advance in all Visual Communication courses. Pre-requisite: VCA 120 and VCC 166. Lecture/Lab: 3.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

VCA 132(3) Course ID:000201
Illustration For Advertising
Develops skills in visualization and illustration techniques as they apply to advertising and graphic design. Emphasizes visual interpretation of narrative textual information (such as a story, poem or magazine article), editorials, advertising, and books. Uses a variety of media from traditional media to digital media to create professional illustrations as elements of advertising. Students must receive a letter grade of "C" or better. Lecture/Lab: 3.0 credits (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 video editing production of dramatic, informational or experimental work on video. Pre-requisite Or Co-requisite: VCA 160 and VCC 165 with a grade of C or better. Lecture: 2.0 credits (30 contact hours). Laboratory: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

VCA 160(3) Course ID:000203
Commercial Photography I
Teaches the use of 35 mm Digital SLR cameras, digital printers, and digital photography technology in relation to black & white photography and color photography. Includes basic photographic methods and skills in digital image capture, digital image manipulation, digital image printing, and presentation of photographs. Integrated Lecture/Lab: 3 credits (60 contact hours).

Components: Integrated Laboratory, Integrated Lecture
Attributes: Technical

VCA 161(3) Course ID:000207
Commercial Photography II
Continues the study of the 35mm camera as it relates to commercial art primarily in a studio setting using digital photography. Includes problem solving through assigned projects. Pre-requisite: VCA 160 with a grade of C or better or consent of instructor. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical

VCA 163(3) Course ID:017580
Basic Photography
Teaches the use of 35 mm Digital SLR cameras, digital printers, and digital photography technology in relation to black & white photography and color photography. Includes basic photographic methods and skills in digital image capture, digital image manipulation, digital image printing, and presentation of photographs. Integrated Lecture/Lab: 3 credits (60 contact hours).

Components: Integrated Laboratory, Integrated Lecture
Attributes: Technical

VCA 164(3) Course ID:017581
Portrait Photography
Continues the study of the 35mm Digital SLR camera as it relates to commercial art primarily in a studio setting. Introduces the student to basic studio lighting and techniques for portraiture. Includes problem solving through assigned projects. Pre-requisite Or Co-requisite: VCA 163 or VCA 120 with a grade of C or better. Integrated Lecture/Lab: 3 credits (60 contact hours).

Components: Integrated Laboratory, Integrated 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. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Computer Literacy, Technical

VCA 171(3) Course ID:005395
Advertising Design II
Explores basic to intermediate skills in electronic publishing, design layout, type composition, and prepress for printing and publishing applications. Pre-requisite: VCA 170 with a grade of C or better or Consent of Instructor. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

VCA 173(3) Course ID:017582
Basic Advertising Design
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 and digital media. Navigation of search engines will be utilized. Pre-requisite or Co-requisite: VCC 150 or VCC 125. Integrated Lecture/Lab: 3 credits (60 contact hours).

Components: Integrated Laboratory, Integrated Lecture
Attributes: Technical

VCA 174(3) Course ID:017583
Publication Design
Explores basic to intermediate skills in electronic publishing, design layout, type composition, and prepress for printing and publishing applications. Pre-requisite or Co-requisite: VCC 150 or VCC 125. Integrated Lecture/ Lab: 3 credits (60 contact hours).

Components: Laboratory, Integrated Lecture
Attributes: Technical

VCA 240(3) Course ID:0002123
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 251(3) Course ID:005384
Digital Filmmaking III
Provides training in single-person video production with an emphasis on Electronic News Gathering style of video. Covers news, interviews, TV commercials, and documentaries. Pre-requisite: VCA 251 with a grade of C or better or Consent of Instructor. Pre-requisite Or Co-requisite: VCA 160 with a grade of C or better or Consent of Instructor. Lecture: 2 credits (30 contact hours). Laboratory: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

VCA 252(3) Course ID:005385
Digital Filmmaking IV
Provides training in multiple-person video production with an emphasis on Film-Style video production, story telling, TV commercials, and documentaries. Pre-requisite: VCA 251 with a grade of C or better or Consent of Instructor. Lecture: 2.0 credits (30 contact hours). Laboratory: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

VCA 260(4) Course ID:000208
Commercial Photography III
Continues Commercial Photography II. Applies principles and techniques with emphasis on digital color photographic illustrations captured in the studio and on location. Begins use of lens perspective controls on the camera. Pre-requisite: VCA 161 with a grade of C or better or Consent of Instructor. Lecture/Lab: 4.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

VCA 261(4) Course ID:000209
Commercial Photography IV
Continues Commercial Photography III. Emphasizes color photography and color management. Guidance in portfolio development as well as exploration of business practices in photography. Pre-requisite: VCA 260 with a grade of "C" or better or Consent of Instructor. Lecture/Lab: 4.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical
VCA 263(3) Course ID:017584
Product Photography
Applies principles and techniques with emphasis on digital color photographic illustrations captured in the studio. Begins use of lens perspective controls on the 35mm digital view camera. Includes problem solving through assigned projects. Pre-requisite or Co-requisite: VCA 120 or VCA 162 and VCA 163 with a grade of “C” or better. Integrated Lecture/Lab: 3 credits (60 contact hours).
Components: Integrated Laboratory, Integrated Lecture Attributes: Technical

VCA 264(3) Course ID:017585
Commercial Photography
Emphasizes color photography, lighting, and color management of photographic projects inside the studio and on location. Guidance in portfolio development as well as exploration of business practices in photography. Pre-requisite or Co-requisite: VCA 120 or VCA 162 and VCA 163 with a grade of “C” or better. Integrated Lecture/Lab: 3 credits (60 contact hours).
Components: Integrated Laboratory, Integrated Lecture Attributes: Technical

VCA 270(4) Course ID:000214
Advertising Design III
Emphasizes conceptual design and layout based on extensive use of the industry standard page layout and drawing programs; and critical thinking for problem solving, preparation, and production of electronic artwork. Pre-requisite: VCA 171 with a grade of C or greater or Consent of Instructor. Lecture: 2 credits (60 contact hours); 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 greater or Consent of Instructor. Lecture: 2 credits (30 contact hours); Laboratory: 2 credits (60 contact hours/30:1 ratio).
Components: Laboratory, Lecture Attributes: Technical

VCA 273(3) Course ID:017586
Corporate Design
Creates and develops a total corporate identity emphasizing relationships between adequate research and development of appropriate concepts for a company image. Pre-requisite: VCA 173 and VCA 174 with a grade of “C” or better. Integrated Lecture/Lab: 3 credits (60 contact hours).
Components: Integrated Laboratory, Integrated Lecture Attributes: Technical

VCA 274(3) Course ID:017587
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: VCA 173 and VCA 174 with a grade of “C” or better. Integrated Lecture/Lab: 3 credits (60 contact hours).
Components: Integrated Laboratory, Integrated Lecture Attributes: Technical

VCA 280(3) Course ID:002126
Instructor Consent Required Professional Portfolio Development
Introduce students to proper assembly of a professional portfolio and presentation skills. Students will refine work created in previous classes, identify strengths and weaknesses in their work, create a self-promotional package, attend mock interviews and participate in portfolio exhibit. Students must receive a letter grade of “C” to successfully complete this course. Pre-requisite: Permission of Instructor. Lecture: 0.9 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
Prepares advanced design and photography students to complete a professional portfolio. Explores job interview techniques to help students understand their responsibilities in seeking positions. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (30 contact hours). Pre-requisite: Consent of Instructor.
Components: Lecture Attributes: Technical

VCA 298(2 - 6) Course ID:000210
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/30:1 ratio).
Components: Laboratory, Lecture Attributes: Technical

VCC 100(3) Course ID:004455
Introduction to Visual Communication
Introduces the concepts, vocabulary, and processes used in relation to visual communication. Includes various disciplines such as advertising and design, multimedia, and printing. Identifies career paths and specific job skills within the visual communication field. Students must receive a letter grade of “C” or better. Lecture: 3 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 type styles and fonts for a variety of media. Provides experience in using type as a creative tool to produce interesting, type-only designs. Applies elements and principles of design. Students must receive a final grade of “C” or better to advance in all Visual Communication courses. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCC 110(3) Course ID:002111
Design Concepts
Explores the elements and principles of design to develop skills in producing creative ideas and designs for various media forms. Apply the design process to advertising and marketing strategies that includes legal issues, media strategies, and customer behavior. Students must receive a letter grade of “C” or better to advance in all Visual Communication courses. Pre-requisite Or Co-requisite: VCC 200. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCC 125(3) Course ID:006859
Computer Graphics I
Introduces students to computer technologies that are specific to the visual communication industry and fulfills the digital literacy requirements. 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. Pre-requisite Or Co-requisite: VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCC 135(3) Course ID:017194
Photo Editing for Photography
Explores Adobe Lightroom and Adobe Photoshop techniques needed to edit photographs. Explore the differences and similarities of Lightroom and Photoshop and how you can use them together. Develop the skills needed as a photographer to edit photographs after sessions. Students must receive a letter grade of “C” or better to advance in all Visual Communication courses. Integrated Lecture/Lab: 3 credits (90 contact hours).
Components: Integrated Laboratory, Integrated 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 to advance in all Visual Communication courses.
Components: Lecture Attributes: Technical

VCC 166(3) Course ID:000150
Photoshop Basics
Develops skills to correct, enhance, and manipulate digital photographic images and composites, and prepare images for the print and web using Adobe Photoshop. Introduce raster graphics and their use in the visual communication industry. Create raster 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 to advance in all Visual Communication courses.
Components: Lecture Attributes: Technical

VCC 200(3) Course ID:000214
Illustrator Basics
Develops skills to create illustrations and vector graphics for a variety of media using Adobe Illustrator. Introduce vector graphics and their use in the visual communication industry. Create 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 to advance in all Visual Communication courses. Pre-requisite: Digital Literacy or 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. Introduces students with knowledge and training of various production equipment along with software applications used to design graphics. Students must receive a final grade of “C” or better to advance in all Visual Communication courses. Pre-requisite: VCC 110 & VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCC 216(3) Course ID: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 a variety of substrates and promotional items. Students must receive a final grade of “C” or better to advance in all Visual Communication courses. Pre-requisite Or Co-requisite: VCC 110 & VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical
358

VCC 218(3) Course ID:006861
Production Design III
Provides basic knowledge of the steps and procedures used to prepare, troubleshoot, and correct files for digital printing. Provides students with the basic skills to produce and utilize PDF files. Provides knowledge in the importance of proper imposition and page-layout of various publications. Provides knowledge and training of various finishing and binding techniques used in the industry. Students must receive a final grade of “C” or better to Advance in all Visual Communication courses. Pre-requisite: VCC 110 & VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Integrated Laboratory, Integrated 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. Apply concepts and mechanics of page layout to create a variety of publications from single page to multi-page documents. Students must receive a letter grade of “C” or better to advance in all Visual Communication courses. Pre-requisite: Digital Literacy or VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Integrated Laboratory, Integrated Lecture Attributes: Technical

VCC 230(3) Course ID:004462
Advanced InDesign
Provides advanced skills in page design and layout using Adobe InDesign software. Design and creation of a variety of complex and multi-page documents will be the focus of this course. Students must receive a letter grade of “C” or better. Pre-requisite: VCC 220. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Integrated Laboratory, Integrated Lecture Attributes: Technical

VCC 235(3) Course ID:016770
Graphic Design I
Explores the use of elements and principles of design in the creative ideation process. Uses the creative brief process to research, design, and create corporate identities, logos, promotional items, collateral materials and advertising. Students must receive a letter grade of “C” or better to advance in all Visual Communication courses. Pre-requisite: VCC 110 & VCC 215. Lecture/Lab: 3.0 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, product labels, promotional items, collateral materials, signage and advertising campaigns. Emphasizes the use of graphics standards for corporate branding. Defines industry standards and specifications for product labels. Students must receive a letter grade of “C” or better to advance in all Visual Communication courses. Pre-requisite: VCC 235. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCC 255(3) Course ID:016772
Emerging Media Design
Explores latest trends of new media technology related to the visual communication field. Topics will be specified by instructor according to latest trends in the region that could include social media, interactive media, advertising and marketing trends and a variety of media technologies. Pre-requisite: VCC 110 and VCC 125. Integrated Lecture/ Lab: 3 credits (90 contact hours).
Components: Integrated Laboratory, Integrated Lecture Attributes: Technical

VCC 260(3) Course ID:001509
Instruction Consent Required
Computer Graphics II
Provides advanced skills in computer graphics using Adobe InDesign, Photoshop, and Illustrator. Create a variety of complex designs and multi-page documents will be the focus of this course. Students must receive a letter grade of “C” or better to advance in all Visual Communication courses. Pre-requisite: VCC 110 and VCC 125 or Permission of Instructor. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCC 265(3) Course ID:005142
Advanced Photoshop
Develops advanced skills to digitally manipulate, enhance, and create composite photographs. Applies advanced principles, concepts, and techniques for graphic design and digital photography. Creation and manipulation of graphics for complex images and designs will be the focus of this course. Students must receive a letter grade of “C” or better. Pre-requisite: VCC 166. Lecture/Lab: 3.0 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 295(3) Course ID:017318
Production Design IV
Introduces concepts, vocabulary, and processes used in relation to design and produce vehicle wraps, wall wraps, and other large format graphics. Provides knowledge in the operation of wide format printers, laminators, and vinyl cutters. Covers substrates and laminates for various applications, tools and supplies for preparation and installation of printed graphics, and techniques used to install graphics. Students will 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 student's educational objectives. Students participating in Internships do not receive compensation for their work. 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 110(3) Course ID:004453
Fundamentals of Animation
Explores the fundamentals of 2-D animation through history, theory and practical application. Covers the basic concepts of animation, including: character design and development, character environment, and storytelling. Students must receive a letter grade of “C” or better. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

VCM 115(3) Course ID:004452
2-D Animation
Introduces basic computer animation using industry standard software. Uses software to create 2-D animations for various multi-media 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 screening, storyboarding, 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
Prepares students to use digital video for business and entertainment. Applications of digital video include the creation of animations, 3-D videos, and special effects. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

VCM 150(3) Course ID:017076
Audio Production I
Introduces basic technical skills, recording equipment, and vocabulary for audio production. Develops skills in writing, editing, and mixing of audio recordings. Students must receive a letter grade of “C” or better. Lecture: 1.0 credit (15 contact hours); Lab: 2.0 credits (75 contact hours).
Components: Lecture Attributes: Technical

VCM 205(3) Course ID:004454
Introduction to HTML
Introduces the creation of Web sites using hypertext markup language (HTML) and cascading style sheets (CSS). Students must receive a letter grade of “C” or better to advance in all Visual Communication courses. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

VCM 210(3) Course ID:004344
3-D Animation
Introduces the principles of animation. Uses 3-D animation software to produce 3-D models and animations. Students must receive a letter grade of “C” or better. Pre-requisite Or Co-requisite: VCM 115. Lecture: 1.0 credit (15 contact hours); Lab: 2.0 credits (75 contact hours).
Components: Lecture Attributes: Technical

VCM 215(3) Course ID:005143
After Effects
Introduces basic compositing techniques and motion graphics using Adobe AfterEffects. Emphasizes an understanding of pre-production for AfterEffects, green screen, lighting, key-framing, creating mattes, animating text, syncing to audio and exporting movies. Students must receive a letter grade of “C” or better. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

VCM 220(3) Course ID:001767
Webpage Design
Introduces students to principles and elements used in web design. Explores basic web design tools such as mark-up languages, cascading style sheet, and web authoring software. Identifies fundamentals including website layout, navigation, font usage, color schemes, and site structure to create visually-pleasing websites. Students must receive a letter grade of “C” or better. Pre-requisite: VCC 110 and VCC 125. Lecture: 1.0 credit (15 contact hours); Lab: 2.0 credits (75 contact hours or 3.75 contact hours).
Components: Laboratory, Lecture Attributes: Technical
Advanced Webpage Design
Course ID: 004345
Uses HTML and CSS and an advanced web-authoring software for design and development of a website. Utilizes fundamentals of web design, such as site layout and structure, navigation, font usage, and color schemes, to create a visual pleasing and responsive website. Introduces aesthetic, navigational, accessibility, and interactivity issues for web designers. Students must receive a grade of "C" or better. Pre-requisite: VCM 220. Lecture: 3 credits (90 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

Advanced Digital Video
Course ID: 004456
Emphasizes planning and creation of digital video projects through a non-linear editing environment to focus on the study of video content. Deploys 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

Lecture/Lab: 4.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

Lecture/Lab: 5.0 credits (135 contact hours).
Components: Lecture
Attributes: Technical

Components: Integrated Lecture/Lab, Integrated Lecture
VCM 230(3) Course ID: 003445

Veterinary Technology
Course ID: 017410
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 domestic animals, and the basic concepts of animal behavior. Emphasizes preventative health programs for common domestic species along with small animal nutrition and pet food marketing. Teaches and reinforces restraint techniques, medical history, physical exam, and practice management software in the laboratory component. Co-requisite: AGR 240, BIO 112, BIO 113. Integrated Lecture/Lab: 4 credits (90 contact hours).
Components: Integrated Laboratory, Integrated Lecture
Attributes: Technical

VET 112(4) Veterinary Microbiology
Course ID: 007426
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

Components: Lecture
Attributes: Technical

VET 220(5) Parasitology and Clinical Lab
Course ID: 007431
Covers the study of internal and external parasites of companion, exotic, and farm animals. Life cycles, diagnostic protocol, control, and treatment of the most common parasites will be discussed. Familiarizes students with laboratory techniques performed in veterinary hospitals and clinics. Examination and testing of blood, feces, urine, and exudates are performed for diagnostic and prognostic purposes. Development of skills necessary to maintain a safe laboratory working environment, institute quality control programs, collect, process, store, and transport clinical biological specimens. Pre-requisite: VET 120 and VET 130. Co-requisite: VET 210 and VET 230. Lecture/Lab: 5.0 credits (135 contact hours).
Components: Lecture
Attributes: Technical

VCM 220(4) Course ID: 007428

Clinical Pracicum I
Provides practical experience in veterinary clinics and/ or related facilities; students complete 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

Pharmacology
Introduces the major drug classifications, covers the use and control of drugs, measurements and conversion factors, and methods of drug action and interaction used in small and large animal practice. Pre-requisite: VET 120 and VET 130. Co-requisite: VET 220 and VET 230. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

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

Veterinary Technology
Course ID: 007430
Introduces the major drug classifications, covers the use and control of drugs, measurements and conversion factors, and methods of drug action and interaction used in small and large animal practice. Pre-requisite: VET 120 and VET 130. Co-requisite: VET 210 and VET 230. Lecture/Lab: 5.0 credits (135 contact hours).
Components: Lecture
Attributes: Technical

Components: Lecture
Attributes: Technical

VCM 225(4)
Clinical Procedures II
Course ID: 017409
Continues small and large animal medical nursing, aseptic technique, and surgical instrumentation. Builds upon VET 135 skills in surgical nursing, anesthesia monitoring, critical care, emergency medicine, and radiographic techniques. Pre-requisite: VET 210 and VET 220. Integrated Lecture/Lab: 4 credits (120 contact hours).
Components: Integrated Laboratory, Integrated Lecture
Attributes: Technical

VCM 245(5)
Clinical Procedures III
Course ID: 007433
Emphasizes lab animal care, advanced radiographic techniques, ultrasound, and clinical pathology. Covers dental prophylaxis, recognition of dental abnormalities, and charting. Includes refinement of skills introduced in previous courses, and field trips to veterinary and research facilities when appropriate. Pre-requisite: VET 210, VET 220, and VET 235. Co-requisite: AGR 280 and VET 250. Lecture/Lab: 5.0 credits (135 contact hours).
Components: Lecture
Attributes: Technical

Components: Laboratory
Attributes: Technical

VET 120(2)
Clinical Pracicum II
Provides practical experience in veterinary 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

VCM 235(4)
Clinical Procedures II
Course ID: 017409
Continues small and large animal medical nursing, aseptic technique, and surgical instrumentation. Builds upon VET 135 skills in surgical nursing, anesthesia monitoring, critical care, emergency medicine, and radiographic techniques. Pre-requisite: VET 210 and VET 220. Integrated Lecture/Lab: 4 credits (120 contact hours).
Components: Integrated Laboratory, Integrated Lecture
Attributes: Technical

Components: Lecture
Attributes: Technical

VCM 225(4)
Clinical Procedures III
Course ID: 007433
Emphasizes lab animal care, advanced radiographic techniques, ultrasound, and clinical pathology. Covers dental prophylaxis, recognition of dental abnormalities, and charting. Includes refinement of skills introduced in previous courses, and field trips to veterinary and research facilities when appropriate. Pre-requisite: VET 210, VET 220, and VET 235. Co-requisite: AGR 280 and VET 250. Lecture/Lab: 5.0 credits (135 contact hours).
Components: Lecture
Attributes: Technical

Components: Lecture
Attributes: Technical

VET 108(4)
Lecture: 3 credits (45 contact hours).

WLD Welding
Course ID: 004575
Oxy-Fuel Systems
A working knowledge of oxy-fuel identification, set-up, inspection, and maintenance; consumable identification, selection and care, principles of operation; and effects of variables for manual and mechanized oxy-fuel cutting, welding, brazing principles and practices, and metallurgy. Shop safety and equipment use are also covered. Lecture: 2 credits (30 contact hours) Co-requisite: WLD 101 or Consent of Instructor.
Components: Lecture
Attributes: Technical

WLD 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: 005391
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 recurrence 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 (30 contact hours)/30:1 ratio. Co-requisite: WLD 110 or Consent of Instructor.
Components: Laboratory
Attributes: Technical
WLD 120(2) Course ID:004600
Shielded Metal Arc Welding
Teaches the student identification, inspection, and maintenance of SMAW electrodes; principles of SMAW; the effects of variables on the SMAW process, welding of 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 laboratory 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 121 or Consent of Instructor.
Components: Laboratory Attributes: Technical

WLD 130(2) Course ID:004579
Gas Tungsten Arc Welding
Identification, inspection, and maintenance of GTAW machines; identification, selection and storage of GTAW electrodes; principles of GTAW; the effects of variables on the GTAW process; and metallurgy. This course also teaches the theory and application of Plasma Arc Cutting. Co-requisite: WLD 131 or Consent of Instructor: Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Technical

WLD 131(3) Course ID:004580
Gas Tungsten Arc Welding Fillet Lab
Teaches the necessary manipulative skills needed to apply the Gas Tungsten Arc on various joint designs on plate with both ferrous and non-ferrous metals. Plasma Arc cutting included. Co-requisite: WLD 130 or Consent of Instructor. Laboratory: 3 credits (90 contact hours/30:1 ratio).
Components: Laboratory Attributes: Technical

WLD 133(3) Course ID:004581
Gas Tungsten Arc Welding Groove Lab
Teaches the method of operation and application of the tungsten arc welding process for welding groove welds in both ferrous and non-ferrous plate in all positions. Pre-requisite: WLD 130 or Consent of Instructor. Laboratory: 3 credits (90 contact hours/30:1 ratio).
Components: Laboratory Attributes: Technical

WLD 140(2) Course ID:004582
Gas Metal Arc Welding
Identification, inspection, and maintenance of GMAW machines; identification, selection, and storage of GMAW electrodes; principles of GMAW; and the effects of variables on the GMAW process. Theory and applications of related processes such as FCAW and SAW and metallurgy are also included. Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Technical

WLD 141(3) Course ID:004583
Gas Metal Arc Welding Fillet Lab
Teaches the practical applications and manipulative skills of Gas Metal Arc Welding and the proper safety situations needed in this process. Both ferrous and non-ferrous metals will be covered, as well as various joint designs on plate in all positions. Co-requisite: WLD 140 or Consent of Instructor. Laboratory: 3 credits (90 contact hours/30:1 ratio).
Components: Laboratory Attributes: Technical

WLD 143(3) Course ID:004584
Gas Metal Arc Welding Groove Lab
Teaches the method of operation and application of the gas metal arc welding process for welding groove welds in both ferrous and non-ferrous plate in all positions using short circuiting and spray transfer where appropriate. Pre-requisite: WLD 140 or Consent of Instructor. Laboratory: 3 credits (90 contact hours/30:1 ratio).
Components: Laboratory Attributes: Technical

WLD 145(1) Course ID:004586
Gas Metal Arc Welding Aluminum Lab
Teaches welding aluminum using the GMAW process. Fillets and groove welds are made in all positions in both plate and pipe. Short Circuiting and Spray transfers are used where appropriate. Pre-requisite: WLD 140 or Consent of Instructor. Laboratory: 1 credit (30 contact hours/30:1 ratio).
Components: Laboratory Attributes: Technical

WLD 147(1) Course ID:004585
Flux Cored Arc Welding Lab
Acquaints the student with the method of operation and application of the flux cored welding system. Pre-requisite: WLD 140 or Consent of Instructor. Laboratory: 1 credit (30 contact hours/30:1 ratio).
Components: Laboratory Attributes: Technical

WLD 151(2) Course ID:004603
Basic Welding A
Introduction to welding, cutting processes, and related equipment. Basic setup, operation, and related safety are applied. Lecture: 1 credit (15 contact hours). Laboratory: 1 credit (30 contact hours/30:1 ratio).
Components: Laboratory, Lecture Attributes: Technical

WLD 152(5) Course ID:004441
Basic Welding B
An introduction to common cutting and welding processes used in industry. Theory, setup, operation, and related safety are applied. Lecture: 2 credits (30 contact hours). Laboratory: 3 credits (90 contact hours/30:1 ratio).
Components: Laboratory, Lecture Attributes: Technical

WLD 161(1) Course ID:004602
Submerged Arc Welding Lab
Designed to provide the student with a working knowledge of SAW principles, 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 occupational 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 specific includes welding drawings, symbols, joint types, grooves, pipe welding symbols, welding 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 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 sequence. Utilizes welding symbols and study weld sizes and strengths. Lab: 3 credits (90 contact hours/30:1 ratio). Co-requisite: WLD 170 or Consent of Instructor.
Components: Laboratory Attributes: Technical

WLD 181(1) Course ID:004601
Advanced Welding Systems Lab
Provides the student a working knowledge and hands on experience using advanced arc welding machines (STT surface tension transfer and pulsed GMA welding) on various joints and metals. Laboratory: 1 credit (30 contact hours/30:1 ratio). Pre-requisite: WLD 140 and 141 or Consent of Instructor.
Components: Laboratory

WLD 198(1 - 6) Special Topics in Welding
Various Welding Technology topics, issues and trends will be addressed. Topics may vary from semester to semester at the discretion of the instructor; course may be repeated with different topics to a maximum of six credit hours. Lecture: Varies. Laboratory: Varies. Pre-requisite: Consent of Instructor.
Components: Lecture Attributes: Technical

WLD 220(2) Course ID:004589
Welding Certification Lab
Provides the student a working knowledge of certification encountered in welding. The student will start with developing a WPS, qualify the WPS, and qualify personnel. Documents used in welding certification are developed and used. Co-requisite: WLD 221 or Consent of Instructor. Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Technical

WLD 221(3) Course ID:004590
Welding Certification Lab
Provides students an opportunity to test on all types of welding for certification standards. Laboratory: 3 credits (90 contact hours/30:1 ratio). Co-requisite: WLD 220 or Consent of Instructor.
Components: Laboratory Attributes: Technical

WLD 225(3) Course ID:004591
Shielded Metal Arc Welding Open Groove Lab
Designed to build upon SMAW Plate Lab 1 & 2. 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 and 121 or Consent of Instructor. Components: Laboratory Attributes: Technical

WLD 227(3) Course ID:004592
Shielded Metal Arc Welding Pipe Lab A
Teaches the required manipulative skills to arc weld pipe using mild steel electrodes in the 2G and 5G positions including proper pipe preparations, electrodes, safety precautions, and welding sequences. Fillet welds on pipe joints are also included in 2F, 2FR, 4F, and 5F positions. Lab: 3 credits (90 contact hours/30:1 ratio). Pre-requisite: WLD 225 or Consent of Instructor.
Components: Laboratory Attributes: Technical

WLD 229(3) Course ID:004593
Shielded Metal Arc Welding Pipe Lab B
Teaches the required manipulative skills to arc weld pipe using mild steel electrodes in the 6G position including proper pipe preparations, electrodes, safety precautions, and welding sequences. Lab: 3 credits (90 contact hours/30:1 ratio). Pre-requisite: WLD 225 or Consent of Instructor.
Components: Laboratory Attributes: Technical
WLD 235(3)  Course ID:004594  
Gas Tungsten Arc Welding Pipe Lab A  
Teaches the method of operation and application of the gas tungsten arc welding system for welding of both ferrous and non-ferrous pipe in 2G and 5G positions. Lab: 3 credits (90 contact hours/30:1 ratio). Pre-requisite: WLD 133 or Consent of Instructor.  
Components: Laboratory  
Attributes: Technical

WLD 237(3)  Course ID:004595  
Gas Tungsten Arc Welding Pipe Lab B  
Teaches the method of operation and application of the gas tungsten arc welding process for welding of both ferrous and non-ferrous pipe in 6G 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 130 & WLD 131 or Permission of Instructor. Laboratory: 1 credit (30 contact hours).  
Components: Laboratory  
Attributes: Technical

WLD 245(3)  Course ID:004604  
Gas Metal Arc Welding Pipe Lab A  
Acquaints the student with the operation and application of the Gas Metal Arc System for welding pipe in 2G and 5G positions. Laboratory: 3 credits (90 contact hours/30:1 ratio). Co-requisite: WLD 143 or Consent of Instructor.  
Components: Laboratory  
Attributes: Technical

WLD 247(3)  Course ID:004597  
Gas Metal Arc Welding Pipe Lab B  
Acquaints the student with the operation and application of the Gas Metal Arc System for welding groove welds in pipe in 6G position. Lab: 3 credits (90 contact hours/30:1 ratio). Pre-requisite: WLD 143 or Consent of Instructor.  
Components: Laboratory  
Attributes: Technical

WLD 251(1-6)  Course ID:004608  
Welding Automation Lab  
Provides the student a working knowledge and hands-on experience using automatic welding equipment such as robotic welding systems, bug-o systems, and automated GTA welding systems. Pre-requisite: WLD 140/141, or consent of instructor. Lab: 1-6 credit hours (30-180 contact hours).  
Components: Laboratory  
Attributes: Technical

WLD 253(1)  Course ID:004607  
Pipe Fitting and Template Development Lab  
Provides experiences in pipe template development and job knowledge and experience with the techniques and tools used to field layout, cut, and fit the various pipe joints that are used in pipe trades. Lab: 1 credit (30 contact hours/30:1 ratio).  
Components: Laboratory  
Attributes: Technical

WLD 298(1 - 6)  Course ID:004443  
Instructor Consent Required  
Welding Practicum  
Provides on-the-job work experience related to the student's educational objectives. Students participating in the Practicum do not receive compensation. Laboratory: 1-6 credits (30-180 contact hours/30:1 ratio). Pre-requisite: Consent of Instructor.  
Components: Practicum  
Attributes: Technical

WLD 299(1 - 6)  Course ID:004598  
Instructor Consent Required  
Cooperative Education Program  
Components: Co-Op  
Attributes: Technical

WMT 110(2)  Course ID:002176  
Technical Drawing and Blueprint Reading  
Fundamentals of multiview and pictorial drafting techniques; and reading and interpreting architectural, furniture and cabinet drawings are the focus of this course. Students will apply blueprint reading skills by preparing materials and cutting lists for actual jobs. Lecture: 2 credits (60 contact hours).  
Components: Lecture  
Attributes: Technical

WMT 120(4)  Course ID:002177  
Wood Product Manufacturing  
Fundamentals of wood processing and an overview of the secondary wood processing industry are covered in this course. The nature of wood, material selection, terminology, safe set-up, and operation of common woodworking equipment will be discussed. Each student will fabricate a wood product while being introduced to custom woodworking techniques, as well as mass production concepts related to product engineering.  
Components: Lecture  
Attributes: Technical

WMT 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. Co-Op: 2 credits (150 contact hours).  
Components: Co-Op

WMT 240(4)  Course ID:002185  
Cabinet Making Technology  
This course is an overview of the cabinet and store fixtures industries. Emphasis will be placed on the design and construction of face frame as well as frameless (32mm) systems. Each student will plan and build a vanity, kitchen cabinet or store fixture which utilizes contemporary casework techniques. Pre-requisite: WMT 110 and WMT 120. Lecture: 4 credits (120 contact hours).  
Components: Lecture

WMT 250(4)  Course ID:002186  
Furniture Technology  
Furniture design principles, structural considerations, joinery, fasteners, veneering, and use of specialized machines for complex operations are the focus of this course. Each student will plan and build a piece of furniture which includes at least one drawer, a door and some veneering. Pre-requisite: WMT 110 and WMT 120. Lecture: 4 credits (120 contact hours).  
Components: Lecture

WMT 280(2)  Course ID:002189  
Instructor Consent Required  
Estimating  
This course is an introduction to estimating costs and materials for wood products. Special emphasis will be placed on projecting material and labor costs for custom wood products as well as mass produced items. Pre-requisite: Permission of the Instructor. Lecture: 2 credits (60 contact hours).  
Components: Lecture

WMT 290(4)  Course ID:002190  
Instructor Consent Required  
Advanced Wood Processing  
This course is a capstone experience for advanced wood processing technicians involving the integration of computer aided design and world-class manufacturing of wood products. Pre-requisite: Permission of the Instructor. Lecture: 4 credits (120 contact hours).  
Components: Lecture

WPP Workplace Principles  
WPP 200(3)  Course ID:002193  
Workplace Principles  
Workplace Principles examines the changing workforce and the skills needed to adapt to constantly changing demands and expectations. The course includes but is not limited to problem solving, teamwork, time management, and self-management skills. Job-seeking and job-retention skills are taught through the development of resumes and job search materials. Maximum benefit is received if this course is taken in the latter part of the student's course work. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: Enrichment Course Other, Technical

WPP 2001(1)  Course ID:016787  
Soft Skills  
Workplace Principles examines the changing workforce and the skills needed to adapt to constantly changing demands and expectations. The course includes but is not limited to problem solving, teamwork, time management, and self-management skills. Lecture: 1.0 credits (15 contact hours).  
Components: Lecture  
Attributes: Enrichment Course Other
Determination of Residency Status for Admission and Tuition Purposes

Appendix A

13 KAR 2.045.

Determination of residency status for admission and tuition assessment purposes.


NECESSITY, FUNCTION, AND CONFORMITY: KRS 164.020(8)

Section 1. Definitions.

(1) "Academic term" means a division of the school year during which a course of studies is offered, and includes a semester, quarter, or single consolidated summer term as defined by the institution.

(2) "Continuous enrollment" means enrollment in a state-supported postsecondary education institution at the same degree level for consecutive terms, excluding summer term, since the beginning of the period for which continuous enrollment is claimed unless a sequence of continuous enrollment is broken due to extenuating circumstances beyond the student's control, such as serious personal illness or injury, or illness or death of a parent.

(3) "Degree level" means enrollment in a course or program that could result in the award of a:

(a) Certificate, diploma, or other program award at an institution;
(b) Baccalaureate degree or lower, including enrollment in a course by a nondegree-seeking post baccalaureate student;
(c) Graduate degree or graduate certification other than a first-professional degree in law, medicine, dentistry, or "Pharm. D";
(d) Professional degree in law, medicine, dentistry, or "Pharm. D".

(4) "Dependent person" means a person who cannot demonstrate financial independence from parents or persons other than a spouse and who does not meet the criteria for independence established in Section 5 of this administrative regulation.

(5) "Determination of residency status" means the decision of a postsecondary education institution that results in the classification of a person as a Kentucky resident or as a nonresident for admission and tuition assessment purposes.

(6) "Domicile" means a person's true, fixed, and permanent home and is the place where the person intends to remain indefinitely, and to which the person expects to return if absent without intending to establish a new domicile elsewhere.

(7) "Full-time employment" means continuous employment for at least forty-eight (48) weeks at an average of at least thirty (30) hours per week.

(8) "Independent person" means a person who demonstrates financial independence from parents or persons other than a spouse and who meets the criteria for independence established in Section 5 of this administrative regulation.

(9) "Institution" means an entity defined by KRS 164.001(12) if the type of institution is not expressly stated and includes the Kentucky Virtual University, the Council on Postsecondary Education, and the Kentucky Higher Education Assistance Authority.

(10) "Kentucky resident" means a person determined by an institution for tuition purposes to be domiciled in, and a resident of, Kentucky as determined by this administrative regulation.

(11) "Nonresident" means a person who:

(a) Is domiciled outside Kentucky;
(b) Currently maintains legal residence outside Kentucky; or
(c) Is not a Kentucky resident as determined by this administrative regulation.

(12) "Parent" means one (1) of the following:

(a) A person's father or mother; or
(b) A court-appointed legal guardian if:
   1. The guardianship is recognized by an appropriate court within the United States;
   2. There was a relinquishment of the rights of the parents; and
   3. The guardianship was not established primarily to confer Kentucky residency on the person.

(13) "Preponderance of the evidence" means the greater weight of evidence or evidence that is more credible and convincing to the mind.

(14) "Residence" means the place of abode of a person and the place where the person is physically present most of the time for a noneducational purpose in accordance with Section 3 of this administrative regulation.

(15) "Student financial aid" means all forms of payments to a student if one (1) condition of receiving the payment is the enrollment of the student at an institution, and includes student employment by the institution or a graduate assistantship.

(16) "Sustenance" means:

(a) Living expenses, such as room, board, maintenance, and transportation; and
(b) Educational expenses, such as tuition, fees, books, and supplies.

Section 2. Scope.

(1) State-supported postsecondary education institutions were established and are maintained by the Commonwealth of Kentucky primarily for the benefit of qualified residents of Kentucky. The substantial commitment of public resources to postsecondary education is predicated on the proposition that the state benefits significantly from the existence of an educated citizenry. As a matter of policy, access to postsecondary education shall be provided so far as feasible at reasonable cost to a qualified individual who is domiciled in Kentucky and who is a resident of Kentucky.

(2) In accordance with the duties established in KRS 164.020, the Council on Postsecondary Education may require a student who is neither domiciled in, nor a resident of, Kentucky to meet higher admission standards and to pay a higher level of tuition than resident students.

(3) Unless otherwise indicated, this administrative regulation shall apply to all student residency determinations, regardless of circumstances, including residency determinations made by:

(a) The state-supported institutions for prospective and currently-enrolled students;
(b) The Southern Regional Education Board for contract spaces;
(c) Reciprocity agreements, if appropriate;
(d) The Kentucky Virtual University;
(e) Academic common market programs;
(f) The Kentucky Educational Excellence Scholarship Program; and
(g) Other state student financial aid programs, as appropriate.

Section 3. Determination of Residency Status; General Rules.

(1) A determination of residency shall include:

(a) An initial determination of residency status by an institution:
   1. During the admission process;
   2. Upon enrollment in an institution for a specific academic term; or
   3. For admission into a specific academic program;
(b) A reconsideration of a determination of residency status by an institution based upon a changed circumstance; or
(c) A formal hearing conducted by an institution upon request of a student after other administrative procedures have been completed.

(2) An initial determination of residency status shall be based upon:

(a) The facts in existence when the credentials established by an institution for admission for a specific academic term have been received and during the period of review by the institution;
(b) Information derived from admissions materials;
(c) If applicable, other materials required by an institution and consistent with this administrative regulation; and
(d) Other information available to the institution from any source.

(3) An individual seeking a determination of Kentucky residency status shall demonstrate that status by a preponderance of the evidence.

(4) A determination of residency status shall be based upon verifiable circumstances or actions.

(5) Evidence and information cited as the basis for Kentucky domicile and residency shall accompany the application for a determination of residency status.

(6) A student classified as a nonresident shall retain that status until the student is officially reclassified by an institution.

(7) A student may apply for a review of a determination of residency status once for each academic term.

(8) If an institution has information that a student's residency status may be incorrect, the institution shall review and determine the student's correct residency status.
(9) If the Council on Postsecondary Education has information that an institution’s determination of residency status for a student may be incorrect, it may require the institution to review the circumstances and report the results of that review.

(10) An institution shall impose a penalty or sanction against a student who gives incorrect or misleading information to an institutional official, including payment of nonresident tuition for each academic term for which resident tuition was assessed based on an improper determination of residency status. The penalty or sanction may also include:

(a) Student discipline by the institution through a policy written and disseminated to students; or
(b) Criminal prosecution.

Section 4. Presumptions Regarding Residency Status.

(1) In making a determination of residency status, it shall be presumed that a person is a nonresident if:

(a) A person is, or seeks to be, an undergraduate student and admissions records show the student to be a graduate of an out-of-state high school within five (5) years prior to a request for a determination of residency status;
(b) A person’s admissions records indicate the student’s residence to be outside of Kentucky when the student applied for admission;
(c) A person moves to Kentucky primarily for the purpose of enrollment in an institution;
(d) A person moves to Kentucky and within twelve (12) months 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 determining the dependent or independent status of a person, the following information shall be considered, as well as other relevant information available when the determination is made:

(a) 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 person other than an independent spouse necessary to provide for the person’s own sustenance.

(3) An individual who enrolls at an institution immediately following graduation from high school and remains enrolled shall be presumed to be a dependent person unless the contrary is evident from the information submitted.

(4) Residence shall 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 reassessed if continuous enrollment is broken or the current degree level is completed.

Section 7. Member or Former Member of Armed Forces of the United States, Spouse and Dependants; Effect on a Determination of Residency Status.

(1) A member, spouse, or dependent of a member whose domicile and residency was Kentucky when inducted into the Armed Forces of the United States, and who maintains Kentucky as home of record and permanent address, shall be entitled to Kentucky residency status:

(a) During the member’s time of active service; or
(b) If the member returns to this state within six (6) months of the date of the member’s discharge from active duty.

(2) A member of the armed services on active duty for more than thirty (30) days and who has a permanent duty station in Kentucky shall be classified as a Kentucky resident and shall be entitled to in-state tuition, as shall the spouse or a dependent child of the member.

(b) A member, spouse, or dependent of a member shall not lose Kentucky residency status if the member is transferred on military orders while the member, spouse, or dependent requesting the status is in continuous enrollment at the degree level in which currently enrolled.

(3) Membership in the National Guard or civilian employment at a military base alone shall not qualify a person for Kentucky residency status under the provisions of subsections (1) and (2) of this section. If a member of the Kentucky National Guard is on active duty status for a period of not less than thirty (30) days, the member shall be considered a Kentucky resident, as shall the spouse or a dependent child of the member.

(4) A person eligible for benefits under the federal Post-9/11 Veterans Educational Assistance Act of 2008, 38 U.S.C. 3301-3325, or any other educational benefits provided under Title 38 of the United States Code shall be entitled to Kentucky residency status for purposes of tuition charged at state-supported institutions.

(5) A person’s residency status established pursuant to this section shall be reassessed if the qualifying condition is terminated.

Section 8. Status of Nonresident Aliens; Visas and Immigration.

(1)(a) A person holding a permanent residency visa or classified as a political refugee shall establish domicile and residency in the same manner as another person.
(b) Time spent in Kentucky and progress made in fulfilling the conditions of domicile and residency prior to obtaining permanent residency status shall be considered in establishing Kentucky domicile and residency.

(2) A person holding a nonimmigrant visa with designation A, E, G, H-1, H-4 if 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) An independent person holding a nonimmigrant visa with designation B, C, D, F, H-2, H-3, H-4 if accompanying a person with an H-2 or H-3 visa, J, M, O, P, Q, S, TD, or TN shall not be classified as a Kentucky resident because that person does not have the capacity to remain in Kentucky indefinitely and therefore cannot form the requisite intent necessary to establish domicile as defined in Section 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.

(4) A 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.

(5) A person shall be a Kentucky resident for the purpose of this administrative regulation if the graduate from a Kentucky high school and:

(a) is an undocumented alien;
(b) Holds a visa in subsections (2) or (3)(a) of this section; or
(c) is a dependent of a person who holds a visa in subsections (2) or (3)(a) of this section.

(5)(a) Except as provided in paragraph (b) of this subsection, a person who has petitioned the federal government to reclassify visa status shall continue to be ineligible until the petition has been granted 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) 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 circumstances in each determination of residency:
(a) Acceptance of an offer of full-time employment or transfer to an employer in Kentucky or contiguous area while maintaining residence and domicile in Kentucky.
(b) Continuous physical presence in Kentucky while in a nonstudent status for the twelve (12) months immediately preceding the start of the academic term for which a classification of Kentucky residency is sought.
(c) 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.

(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.
(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.
(3) If a student fails to provide, by the date specified by the institution, information required by an institution in a determination of residency status, the student shall be notified by the institution that the review has been canceled and that a determination has been made.

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;
(4) Establish written policies and procedures for administering the responsibilities established in subsections (1), (2), and (3) of this section and that are:
(a) Approved by the institution’s governing board;
(b) Made available to all students; and
(c) Filed with the council.


(1) A student who appeals a determination of residency by a residency review committee shall be granted a formal hearing by an institution if the request is made by a student in writing within fourteen (14) calendar days after notification of a determination by a residency review committee.
(2) If a request for a formal hearing is received, an institution shall appoint a hearing officer to conduct a formal hearing. The hearing officer shall:
(a) Be a person not involved in determinations of residency at an institution except for formal hearings; and
(b) Not be an employee in the same organizational unit as the residency appeals officer.
(3) An institution shall have written procedures for the conduct of a formal hearing that have been adopted by the board of trustees or regents, as appropriate, and that provide for:
(a) A hearing officer to make a recommendation on a residency appeal;
(b) Guarantees of due process to a student that includes: 1. The right of a student to be represented by legal counsel; and 2. The right of a student to present information and to present testimony and information in support of a claim of Kentucky residency; and
(c) A recommendation to be issued by the hearing officer.
(4) An institution's formal hearing procedures shall be filed with the Council on Postsecondary Education and shall be available to a student requesting a formal hearing.

Section 15. Cost of Formal Hearings.

(1) An institution shall pay the cost for all residency determinations including the cost of a formal hearing.
(2) A student shall pay for the cost of all legal representation in support of the student’s claim of residency. (17 Ky.R. 2557; eff. 4-5-1991; Am. 22 Ky.R. 1656; 1988; eff. 5-16-1996; 23 Ky.R. 3380; 3797; 4099; eff. 6-16-1997; 24 Ky.R. 2136; 2705; 25 Ky.R. 51; eff. 7-13-1998; 25 Ky.R. 2177; 2577; 2827; eff. 6-7-1999; 749; 1238; eff. 11-12-2002; 36 Ky.R. 1083; 1951; 2033-M, eff. 4-2-2010; TAm eff. 11-20-2014; 41 Ky.R. 2108; 42 Ky.R. 9; eff. 7-13-2015; TAm 7-13-2015.)
## Appendix B

### Math Course Transitions

#### Crosswalk – Mathematics

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<tr>
<td>MAT 285</td>
<td>Differential Equations</td>
<td>MT 285</td>
<td>Differential Equations</td>
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<tr>
<td>STA 220</td>
<td>Statistics</td>
<td>ST 291</td>
<td>Statistical Methods</td>
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</table>
Below is a table clarifying the math course transition that took place Fall 2004. Courses with the MT prefix that are below the 100-level are transitional courses. MT courses between 100 and 139 are specifically designed for occupational/technical programs. Courses numbered 140 and above are designed as transfer courses.

<table>
<thead>
<tr>
<th>New Course</th>
<th>Credit</th>
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<td>MT 050 Dev. Math Workshop</td>
<td>1-2</td>
<td>None</td>
<td>MAH 065, MTH 199</td>
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<tr>
<td>MT 055 Pre-Algebra</td>
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<td>MT 065 Basic Algebra w/ Measurement</td>
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<td>MT 055</td>
<td>MAH 070, MTH 110,</td>
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<td>MT 075 Pre-College Geometry</td>
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<td>MAH 121</td>
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<td>MT 110 Applied Math.</td>
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<td>MAH 151</td>
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<tr>
<td>MT 115 Technical Math.</td>
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<td>MT 065</td>
<td>MAH 125, MTH 120, MTH 130, MTH 150</td>
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<td>MT 120 Intermediate Algebra w/ Applications</td>
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<td>MAH 083, MA 108, MTH 160</td>
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<tr>
<td>MT 122 Intermediate Algebra: A Functional Approach</td>
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<td>MAH 080</td>
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<tr>
<td>MT 125 Technical Algebra &amp; Trigonometry</td>
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<td>MTH 170, MTH 175, MTH 101</td>
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<td>MT 139 AAS Mathematics Application: (Topic)</td>
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<td>MT 145 Contemporary College Mathematics</td>
<td>3</td>
<td>MT 120 or MT 122</td>
<td>MT 107</td>
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<tr>
<td>MT 150 College Algebra</td>
<td>3</td>
<td>MT 120 or MT 122 or MT 125</td>
<td>MT 109</td>
</tr>
<tr>
<td>MT 155 Trigonometry</td>
<td>3</td>
<td>MT 120 or MT 122 or MT 125</td>
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<td>MT 190 Mathematics Workshop</td>
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## Biology Crosswalk

This table includes changes made to Biology courses effective Fall 2010.

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<th>New Course #</th>
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<td><strong>Transitional Biology Courses</strong></td>
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<td>BIO 026</td>
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<td>BIO 111</td>
<td>Introduction to Biology Lab</td>
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<td>BIO 114</td>
<td>BIO 102</td>
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<td>BIO 115</td>
<td>BIO 100</td>
<td>Biology Laboratory I</td>
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<td>BIO 117</td>
<td>BIO 101</td>
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<tr>
<td>BIO 118</td>
<td>--------------</td>
<td>Microbes and Society</td>
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<tr>
<td>BIO 220</td>
<td>BIO 204</td>
<td>The Genetic Perspective</td>
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<tr>
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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>Dropped</td>
<td>PGY 206</td>
<td>Elementary Physiology</td>
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<td><strong>Ecology Courses</strong></td>
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<tr>
<td>BIO 120</td>
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<td>Human Ecology</td>
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<td>BIO 122</td>
<td>BSL 116</td>
<td>Introduction to Conservation Ecology</td>
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<td>BIO 124</td>
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<td>Aspects of Human Biology</td>
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<td>BIO 135</td>
<td>BSL 107</td>
<td>Basic Anatomy and Physiology w/ Lab</td>
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<td>BIO 137</td>
<td>BSL 110</td>
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<td>BIO 139</td>
<td>BSL 111</td>
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<td>BIO 140</td>
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<td>BIO 141</td>
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<td>Botany with Laboratory</td>
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<td>BIO 142</td>
<td>BIO 104/BSL 160</td>
<td>Zoology</td>
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<td>BIO 143</td>
<td>BIO 104/BSL 160 and BIO 105</td>
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<td><strong>Molecular and Microbiology Courses</strong></td>
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<td>BIO 204</td>
<td>The Genetic Perspective</td>
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<td>Introduction to Molecular and Cell Biology</td>
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<td>BSL 295</td>
<td>Independent Investigation in Biology</td>
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<td>BIO 299</td>
<td>BSL 299</td>
<td>Selected Topics in Biology: Topic</td>
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## Crosswalk for Chemistry Courses

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<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>
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<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>
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<td>CHE 104</td>
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<td>CHE 150</td>
<td>Introduction to Organic and Biological Chemistry*</td>
<td>CHE 106</td>
<td>Introduction to Inorganic, Organic, and Biochemistry</td>
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<td>Introduction to Organic and Biological Chemistry Laboratory*</td>
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<td>CHE 160</td>
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<td>General College Chemistry I*</td>
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<td>General College Chemistry I Workshop</td>
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<td>General College Chemistry Laboratory I*</td>
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<td>General Chemistry Laboratory I</td>
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<td>CHE 185</td>
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<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>
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*General Education Status
### Agricultural Technology: 2011-2012

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<td>AGR 150</td>
<td>Agriculture Power</td>
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<td>Agriculture Seminar</td>
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<td>Introduction to Equipment, Machines, and Engines</td>
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<td>AGR 240</td>
<td>Introduction to Animal Science</td>
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### Agriculture: 2017-2018

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<td>Herbaceous Plant Production</td>
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<td>AGR 145</td>
<td>Technology in Agriculture</td>
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<td>AGR 155</td>
<td>Greenhouse Production</td>
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<td>ART 100</td>
<td>Introduction to Art</td>
<td>AE 272</td>
<td>Workshop in Art Education</td>
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<td>ART 104</td>
<td>Introduction to African Art</td>
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<tr>
<td>ART 105</td>
<td>Ancient through Medieval Art History</td>
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<td>Modern Art</td>
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<td>Introduction to Art Education</td>
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### Biotechnology: 2011-2012

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**Collision Repair Technology: 2011-2012**

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**Computer Aided Drafting & Design: 2011-2012**

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**Computer and Information Technologies: 2012-2013**

(Previously listed under Computer Information Technology/Information Technology/Computer Information Systems Technology)

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**Computerized Manufacturing and Machining: 2012-2013**

(Previously listed under Machine Tool Technology)

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### Criminal Justice: 2011-2012

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### Dental Assisting/Dental Hygiene: 2011-2012

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### Digital Game and Simulation Design: 2012-2013
(Previously listed under Digital Game Design)

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### Education: 2011-2012

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### Education: 2013-2014

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### Emergency Medical Services – Paramedic: 2013-2014

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<td>Traumatic Emergencies - NEW</td>
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<td>EMS 275</td>
<td>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>Power Plant Operations I</td>
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<td>ESP 212</td>
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<td>Power Plant Operations IV: Auxiliaries</td>
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### Engineering & Electronics Technology (Previously MIT: Engineering Technology): 2011-2012

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<td>Mechanical Engineering Graphics</td>
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<td>Computer Applications for Technicians</td>
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### Engineering and Electronics Technology: 2012-2013

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### General College Studies: 2010-2011

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### Global Studies: 2011-2012

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### Health Physics: 2011-2012

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### Human Services: 2011-2012

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<td>Group Dynamics for Human Services</td>
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### Industrial Safety: 2012-2013

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### Industrial Technology: 2012-2013

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## Logistics and Operations Management: 2013-2014

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## Masonry: 2011-2012

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## Math: 2012-2013

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### Medical Laboratory Technology: 2013-2014

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**Mining Technology: 2011-2012**

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**Nursing (BCTC): 2011-2012**

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**Philosophy: 2010-2011**

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**Physics: 2010-2011**

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**Political Science: 2010-2011**

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*NOTE: POL 271 removed from general education status.*

**Professional Studio Artist: 2011-2012**

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**Reading: 2012-2013**

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**Real Estate: 2011-2012**

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