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

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

You’re making a smart choice by choosing one of the 16 KCTCS colleges. Our tuition is the lowest in the state – less than half of what you’d pay at a four-year university – and we are the only public higher education institution that did not raise tuition this year.

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

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

Sincerely,

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

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

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

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

KCTCS programs target high growth industry sectors such as healthcare, manufacturing, energy, IT/business and transportation/logistics. KCTCS forges partnerships between colleges and businesses to provide Kentucky workers with the skills required today and to help industries and individuals develop the capabilities they will need tomorrow. It is the largest provider of workforce training, serving more than 5,300 businesses and training nearly 53,000 employees annually.

Last year alone, KCTCS trained and educated:

- More than 134,990 credit-seeking students.
- 80 percent of Kentucky-trained firefighters.
- 69 percent of the state’s total allied health credentials.

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

Each KCTCS college has enhanced efficiency and service by consolidating functions, support services and programs and by pursuing single accreditation under the Commission on Colleges of the Southern Association of Colleges and Schools (SACS).

To learn more about KCTCS, visit kctcs.edu.

Mission Statement

Kentucky Community and Technical College System

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

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

Academic Calendar

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

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

The following closings are applicable to all KCTCS institutions:

July
3 Independence Day observed

September
7 Labor Day

November
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

March
25 Good Friday (1/2 Day)

May
30 Memorial Day
**KCTCS Leadership**

*This page reflects KCTCS leadership as of July 1, 2015*

**KCTCS Board of Regents**
Ms. Marcia L. Roth, Chair
Dr. Gail R. Henson, Vice Chair
Ms. Carolyn E. “Betsy” Flynn, Secretary
Ms. Ginger M. Carroll
Mr. Robert G. Cooper
Dr. Angela Fultz
Ms. Mary R. Kinney
Mr. Barry K. Martin
Mr. Shawn S. Payne
Mr. Porter G. Peeples, Sr.
Ms. Tiffany L. Quinlan
Mr. James Lee Stevens
Mr. Donald R. Tarter
Mr. Ebenezer Yankey

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

**President**
Dr. Jay K. Box

**President’s Cabinet**
Mr. Timothy R. Burcham, CFRE, Vice President
Dr. Paul B. Czarapata, Vice President
Ms. Beth R. Hilliard, Senior Executive Assistant to the President
Mr. Wendell A. Followell, Vice President
Dr. Gloria S. McCall, Vice President
Dr. Rhonda R. Tracy, Chancellor

**College Leadership**

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

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

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

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

**Gateway Community and Technical College**
Dr. G. Edward Hughes
President/CEO

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

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

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

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

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

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

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

**Somerset Community College**
Dr. Jo Marshall
President/CEO

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

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

**West Kentucky Community and Technical College**
Dr. Barbara M. Veazey
President/CEO
Ashland Community and Technical College

Mission Statement/Status of Accreditation
Ashland Community and Technical College, a member of the Kentucky Community and Technical College System, is a public, two-year degree granting institution serving Northeast Kentucky with a tradition of accessible, affordable, and quality education including general education that supports a variety of excellent associate degree, diploma, and certificate programs and prepares students for transfer to baccalaureate programs. The College has a strong commitment to meet the academic, workforce training, and lifelong learning needs of its community. Teach with excellence. Serve with passion. Learn for life.

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

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

Academic Programs

Transfer Curricula
- Associate in Arts
- Associate in Science

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

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

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

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

General Information

Admissions (606) 326-2000
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) 326-2232
Community and Technical College Foundation (606) 326-2077
Disability Services (606) 326-2051
Financial Aid (606) 326-2198
Human Resources (606) 326-2044
Library (606) 326-2169
Lifelong Learning (606) 326-2072
Public Relations (606) 326-2400
Records (606) 326-2035
Veterans Affairs (606) 326-2424
Website (webmaster) (606) 326-2107

Administration
President – Dr. Kay Adkins (606) 326-2043
Dean of Academic Affairs – Dr. Janie Kitchen (606) 326-2162
Associate Dean of Academic Affairs –
  Dr. Keith Brammell 606-326-2426
Dean of Business Affairs – Karen Blevins (606) 326-2063
Dean of Resource Development and External Affairs –Willie McCullough (606) 326-2232
Dean of Institutional Planning, Research and Effectiveness – Steve Flouhouse (606) 326-2055
Dean of Public Services – John McGlone (606) 326-2400
Dean of Student Affairs – Steven Woodburn (606) 326-2068
Associate Dean of Advising and Student Retention – Cris McDavid (606) 326-2003
Associate Dean of Information Technology – Farnoosh Rafiee (606) 326-2069
Associate Dean of Admissions and Records/Registrar – Kevin Coots (606) 326-2008
Director of Financial Aid – Robin Lewis (606) 326-2423
Director of Cultural Diversity – Al Baker (606) 326-2422
Division of Business Education, Social Sciences and Technology – Molly Webb (606) 326-2231
Acting Division of Health Sciences – Jaine Kitchen (606) 326-2011
Division of Humanities – Carol Greene (606) 326-2142
Division of Manufacturing, Transportation and Industrial Technologies – Dr. Keith Brammell (606) 326-2426
Division of Math and Natural Sciences – Dr. Nicole Griffith-Green (606) 326-2236

Faculty
Alley, Alan C, Assistant Professor, DC, Palmer College of Chiropractic, 1998
Bailey, Danny G, Professor, MS, University of Kentucky, 1971
Bayes, Nenna L, Professor, MA, Morehead State University, 2001
Bird, Pamela, Professor, MA, Morehead State University, 1978
Bogg, Christopher J, Associate Professor, AAS, Institute of Electronics Technology, 1992
Borders III, Andrew J, Associate Professor, MS, Southwestern Baptist Theological Seminary, 1989
Bowman, Curtis D, Professor, Certification, Collins Career Center, 1979
Bradley, Belinda, Associate Professor, AAS, Southern West Virginia Community and Technical College, 2007
Bradley, John M, Associate Professor, Certification, National Institute for Automotive Service Excellence, 1999
Bradley, Peggy L, Associate Professor, BS, Morehead State University, 1979
Brammell, Keith, Professor, DMD, University of Kentucky, 1985
Brown, Sara A, Associate Professor, MSLS, University of Kentucky, 2003
Bryant, Sheree Nicole, Associate Professor, AS, Ohio University Southern Campus, 2003
Cassady, Jeffrey M, Instructor, AAS, Ashland Community and Technical College, 2013
Cavins, Jacqueline L, Associate Professor, BS Morehead State University, 2002
Childress, David C, Associate Professor, Morehead State University, 1985
Conley, Richard R, Professor, MS, University of Kentucky, 1973
Cooksey, Daniel P, Associate Professor, MS, Marshall University, 1979
Cooper, Misty G, Instructor, MSN, Walden University, 2008
Coots, Philip K, Professor, MA, Southern Illinois University, 1989
Craig, Ronald E, Instructor, Certification, Ashland Regional Technology Center, 1996
Cullum, Randolph, Associate Professor, MA, Marshall University, 1981
Davis, John Mark, Associate Professor, MBA, Morehead State University, 1985
Davis, Virgil K, Professor, MA, Morehead State University, 1986
Edwards, Kathryn Hare-Tucci, Professor, MA, Marshall University, 1991
Figgins, Edward E, Associate Professor, BA, Morehead State University, 1988
Flath, Mary C, Professor, PhD, Medical University of South Carolina, 1991
Flouhouse, Steven D, Professor, MS, Marshall University, 1991
Fosson, Woodrow, Instructor, Associate of Applied Technology, ACTC, 2001
Fosterwelsh, Wendy, Professor, MFA, Georgia Southern University, 2004
Frazier II, Donald L, Associate Professor, JD, University of Kentucky, 1974
Frey, Betty E, Professor/Librarian I, MLS, University of Southern California, 1989
George, Karen Marie, Professor, MA, Marshall University, 1979
Greene, Carol M, Professor, PhD, Indiana University of Pennsylvania, 2005
Griffith-Green, Nicole, Associate Professor, EdD, University of the Cumberlands, 2015
Hall, James C, Instructor, MA, University of Louisville, 2014
Hall, Ralfred J, Professor, MS, Morehead State University, 1993
Henderson, Rachel, Instructor, BSN, Chamberlain College of Nursing 2009
Henry, Harold Edmond, Associate Professor, AAS, Ashland Technical College, 2002
Howard, Warren H, Associate Professor, MA, Morehead State University, 2003
Howerton, Deena, Instructor, BSN Bellarmine College 2002
James, Jesse J, Assistant Professor, AAS, Ashland Community and Technical College, 2010
Johns, Robin D, Instructor, AME, Morehead State University, 1987
Joy, Jonathan, Instructor, MA, Marshall University, 2004
Justice, Debra, Associate Professor, MA, Marshall University, 1997
Kitchen, Janie R, Professor, PHD, Case Western Reserve University, 2011
Klinepeter, Pamela, Associate/Librarian II, MLS, University of Kentucky, 2005
Kumar, Ramamurthy Chandra, Professor, MS, Florida Institute of Technology, 1986
Louanglath, Matt L, Assistant Professor, Certification, Ohio State Apprenticeship Council, 2007
Mahan, Daniel, Associate Professor, MA, Samford University, 1984
Martin, Frances, Assistant Professor, AME, Morehead State University, 1994
McCarty, Shannon, Associate Professor, Certificate, Collins Career Center, 1990
McCullough, Willie G, Associate Professor, MA, Marshall University, 1981
McCumbee, Jane, Assistant Professor, MA, Marshall University, 1995
McDavid, Cristina C, Professor, MBE, Morehead State University, 1987
McGinnis, Elizabeth, Assistant Professor, MSN, Marshall University, 1988
McGinnis, Vicki, Assistant Professor, MA University of Kentucky, 1994
McGone, John K, Associate Professor, MS, Morehead State University, 1994
Mengistu, Aschalew, Assistant Professor, PhD, University of Wales College of Medicine, 2002
Merritt, Richard P, Assistant Professor, MA, Marshall University, 2011
Minter, Logan M, Instructor, PhD, Shawnee State University, 2012
Mohrabian, Hossein, Professor, MA, Marshall University, 1983
Motheral, Kelly R, Assistant Professor, Certification, Commonwealth of Virginia, 1999
Music, Stephen L, Assistant Professor, AAS, Big Sandy Community and Technical College, 2012
O’Pell, Donald Ray, Professor, MS, Marshall University, 1984
Rafiee, Farnoosh, Professor, MS, Marshall University, 1982
Ratliff, Terri Lynn, Assistant Professor, BA, Marshall University, 1993
Riggs, Mark, Assistant Professor, MS, Mississippi State University, 2000
Roark, Mary L, Associate Professor, MA, Bellarmine University, 2007
Robinson, Natalie, Assistant Professor, MSN, Bellarmine University, 2007
Schmidt, James C, Professor, PhD, Cincinnati, 1976
Sergent, William K, Instructor, AAS, Ashland Community and Technical College, 2004
Shelton, Cynthia, Associate Professor, AME, Marshall University, 1992
Shortridge, Mary E, Professor, MA, Morehead State University, 1982
Skidmore, Ashley, Assistant Professor, MA, University of Kentucky, 2006
Smith, Mark S, Instructor, BS, Morehead State University, 1999
Stevens, Amy D, Instructor, MSN, University of Phoenix, 2013
Swetnam, Mark R, Professor, MA, University of Kentucky, 1990
Thompson, Alice C, Professor, MA, Marshall University, 1988
Thorton, Jack D, Associate Professor, AAS, Columbus State University, 1986
Tussey, Laura L, Assistant Professor, MA, Marshall University, 2000
Vanover, Wayne D, Associate Professor, BBA, Morehead State University, 1980
Wallace-Vernatter, Susan Y, Instructor, BS, Bellevue University, 2008
Waugh, Dell Beth, Instructor, BA, Marshall University, 1994
Webb, Molly J, Associate Professor, MBA, Bellarmine College, 1982

Big Sandy Community and Technical College

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

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

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

Academic Programs

Transfer Curricula
Associate in Arts
Associate in Science

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

Air Conditioning Technology (C, D, A)
Applied Engineering Technology (C)
Automotive Technology (C, A)
Business Communications (C)
Business Foundations (C)
Business Studies:
  Administrative Office Technology (C, D)
  Business Administration Systems (C, D, A)
  Medical Information Technology (C, D, A)
Civil Engineering Technology (A)
Collision Repair Technology (C, D)
Computer Aided Drafting and Design (C, D)
Computer and Information Technologies (C, A)
Computerized Manufacturing and Machining (C, D, A)
Construction Technology (C, D)
Cosmetology (C, D)
Criminal Justice (C, A)
Culinary Arts (C, D)
Dental Assisting/Dental Hygiene (A)
Diesel Technology (C, D)
Emergency Medical Technician (C)
Energy Technologies (C)
Engineering and Electronics Technology (C, D)
Fire/Rescue Science Technology (C, D, A)
General Occupational/Technical Studies (A)
Horticulture (C, D)
Human Services (C, A)
Interdisciplinary Early Childhood Education (C)
Manufacturing Engineering Technology (C)
Manufacturing Industrial Technology:
  Electrical Technology (C, D)
  Industrial Maintenance Technology (C, D)
  Masonry (C, D)
  Mining Technology (C, A)
  Motorcycle Technology (C, A)
  Nursing (A)
  Practical Nursing (C, D)
  Plumbing (C)
  Respiratory Care (C, A)
  Surgical Technology (C, D, A)
Surveying & Mapping Technology (C, D, A)
Visual Communication
  Design and Technology (C, D, A)
  Multimedia (C)
  Printing (C, D)
  Welding Technology (C, D, A)

Contact Information

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

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

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

Hager Hill Campus
150 Industrial Park Road
Hager Hill, KY 41222
(606) 789-5690
bigsandy.kctcs.edu
General Information
606-886-3863 or 1-888-641-4132
(Toll free – outside of Floyd, Johnson & Pike counties)

Academic Affairs (Program Information) (606)886-7342
Admissions & Records Office (606) 886-3863 Option 2
Business Office 1-855-G0-BSCTC (1-855-462-7282)
Center for Student Engagement (606) 889-4840
Disability Services (606)886-7359
Diversity (606) 886-7374
Financial Aid 1-855-G0-BSCTC (1-855-462-7282)
Library (606) 886-3863 Ext. 64834
Marketing and Communications (606) 889-4703
President’s Office (606) 886-7332
Provost’s Office (606) 886-7351
Security (606) 886-7335
Student Services (606) 889-4822
Website (606) 886-7395
Workforce Solutions (606) 218-1250
Student Services (606) 889-4822
Website (606) 886-7395
Workforce Solutions (606) 218-1276

Administration

President Dr. Devin Stephenson
Provost Dr. Nancy B. Johnson
Chief Institutional Officer Bobby McCool
Chief Business Affairs Officer Michelle Meek
Dean of Academic Affairs Myra Elliottt
Dean of Institutional Effectiveness Dr. Chris Daniel
Dean of Student Services Jimmy Wright
Dean of Administrative Service John Dove
Associate Dean of Academic Affairs-Allied Health Programs Marsha McKenzie (606) 889-4740
Associate Dean of Academic Affairs-General Education Dr. Patsy Jackson (606) 889-4711
Associate Dean of Academic Affairs – Learning Support Services Melinda Justice (606) 889-4826
Associate Dean of Academic Affairs-Technical Programs Keithen McKenzie (606) 788-2896
Associate Dean of Student Services-Enrollment Management Billie Jean Cole (606) 889-4808
Associate Dean of Student Services – Student Support Services Susan Chafin (606) 889-4840
Director of Institutional Advancement Randall Roberts (606) 218-1207
Director of Cultural Diversity Tina Terry (606) 886-7374
Director of Distance Learning and Classroom Technology Dr. Richard Roe (606) 788-2816
Director of East Kentucky Science Center and Planetarium Steven L. J. Russo (606) 889-4809
Director of Facilities, Safety and Auxiliary Services John Herald (606) 886-7335
Director of Financial Aid Cathy Hard-Crank 1-855-G0-BSCTC (606) 886-7388
Director of Fine Arts Clayton Case

Director of Human Resources Bryen L. Goble (606) 889-4724
Director of Library Services Kathy Lowe (606) 889-4748
Director of College Relations Joshua L. Ball (606) 889-4703
Director of Regional Diversity (ECHO) Lisa K. Stumbo (606) 889-4792
Director of Workforce Solutions Kelli Hall (606) 218-1275
Facilities Management Specialist Emma Jean Howard McCoy (606) 889-4710
Workforce Solutions – Coordinator for Hospitality Tourism, Culinary Paula Thompson (606) 218-1253

Faculty

Adam, Kelly J, Professor, MS, Southern Connecticut University, 1993
Adams, Gilbert K, Associate Professor, AA, Morehead State University, 1992
Akhlaghi, Mohammad R, Professor, PhD, University of Oregon, 1978
Allen, Collista, Assistant Professor, MSN, University of Phoenix, 2013
Azeem, Arif, Professor, MS, Western Michigan University, 1982
Baldridge, Harold, Assistant Professor, BS, University of Kentucky, 1968
Ball, Tammy, Professor, MA, University of Louisville, 1996
Barlow, Donald I, Associate Professor, PhD, Ball State University, 1987
Bell, Leslie M, Assistant Professor, MA, Morehead State University, 2010
Berr, Daniel E, Professor, MA, Northern Illinois University, 1986
Bennin, Hope E, Professor, MA, University of Wisconsin, 1987
Bowman, William, Instructor/Librarian IV, MS, University of Kentucky, 2008
Burchett, Nicole, Associate Professor, MSN, Northern Kentucky University, 2015
Campbell, Eric, Assistant Professor, AAS, Big Sandy Community & Technical College, 2007
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
Chafin, Susan K, Professor, MBE, Morehead State University, 1989
Cole, Elizabeth M, Professor, MA, University of Iowa, 1989
Compton, Joseph L, Professor, BS, Morehead State University, 2013
Conn, Stephanie, Instructor, BS, Eastern Kentucky University, 1997
Dales, Heather, Assistant Professor, BSN, Radford University, 2001
Daniel, Christopher A, Professor, EdD, Liberty University, 2013
Dempsey, Jeremy, Associate Professor, MA, Marshall University, 2005
DeRossett, Kimberly R, Professor, BSN, Eastern Kentucky University, 1984
Dixon, Eric, Associate Professor, DMD, University of Kentucky, 1993
Durham, Roberta, Assistant Professor, BSN, Morehead State University, 2009
Elliott, Myra T, Professor, MSN, University of Kentucky, 1993
Elkins, Carmen, Associate Professor, BS, Western Kentucky University, 2013
Fields, Michelle, Associate Professor, MA, Marshall University, 1995
Fitzpatrick, John J, Assistant Professor, BS, Morehead State University, 2013
Fossitt, Leslie, Assistant Professor, MA, Georgetown College, 2007
Gambill, Jessica, Instructor, MA, Union College, 2004
Garrett, Clara N, Professor, MSN, University of Kentucky, 1979
Gill, Bill R, Professor, PhD, Florida State University, 1990
Goforth, Sandra, Associate Professor, BSN, Morehead State University, 2010
Hackney, Randal Clinton, Assistant Professor, MS, Morehead State University, 2007
Dickerson, Cindy, Assistant Professor, MA, Morehead State University, 2007, December
Hall, Joshua, Assistant Professor, BA, Alice Lloyd College, 2004
Hall, Laura R, Associate Professor, MA, Morehead State University, 2004
Hamilton, Rodney, Instructor, Certificate, Mayo State Vocational Technical School, 1988
Hancz, Randell O, Professor, BS, Morehead State University, 2011
Harless, Irma Kay, Assistant Professor, BSN, Morehead State University, 2013
Heywood, Timothy G, Professor, MS, University of Idaho, 1981
Hicks, Jeffrey T, Professor, MA, Morehead State University, 2000
Howard, Jerry, Associate Professor, MA, Union College, 2006
Howell, Judy K, Professor/Librarian I, MA, University of Kentucky, 1992, MS, University of Kentucky, 1994
Jackson, Patsy R, Professor, DNP, University of Kentucky, 2008
Jacobs, Sabra P, Professor, MA, Bowling Green State University, 1989
Jennings, Kitty, Associate Professor, AME, Morehead State University, 2006

886-7342
886-3863 Option 2
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(606)886-7359
(606) 886-7374
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(606) 889-4703
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(606) 886-7335
(606) 889-4822
(606) 886-7395
(606) 218-1250
(606) 889-4822
(606) 886-7395
(606) 218-1276
(606) 889-4740
(606) 889-4711
(606) 889-4826
(606) 788-2896
(606) 889-4808
(606) 889-4840
(606) 218-1207
(606) 886-7374
(606) 788-2816
(606) 889-4809
(606) 886-7335
1-855-G0-BSCTC (606) 886-7388
(606) 889-4724
(606) 889-4748
(606) 889-4703
(606) 889-4792
(606) 218-1275
(606) 889-4710
(606) 218-1253

Bell, Daniel E, Professor, MA, Northern Illinois University, 1986
### Mission Statement/Status of Accreditation

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

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

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

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

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

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

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

### Academic Programs

**Transfer Curricula**
- Associate in Arts
- Associate in Science

**Transfer Curricula/Art Related**

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

- Digital Cinematic Arts (A)
- Theatre (A)

### Occupational/Technical Curricula

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

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

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

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

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

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

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

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

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

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

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

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

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 Augusta A. Julian
Vice President, Academics Greg Feeney
Dean of Academics Bonnie Nicholson
Dean of Academics Palisa Williams-Rushin
Dean of Student Development and Enrollment Management Ren Bates
Dean of Information Technology Services Mark Manuel
Dean of Finance and Operations Lisa Bell
Dean of Multiculturalism and Inclusion Charlene Walker
Dean of Regional Campuses and Outreach Tri Roberts
Chief Officer, Public Information and Marketing Laurel Martin

Faculty
Adair, Gerald M, Associate Professor, MA, Florida Atlantic University, 2000
Akins, Marilyn, Associate Professor, PhD, Cornell University, 1993
Allen, Karen, Associate Professor, MS, University of Kentucky, 2012
Anderson, Melissa M, Professor, AS, Eastern Kentucky University, 2004
Anderson, Stephanie A, Associate Professor, BA, University of Kentucky, 1987
Bailey, Mary F, Associate Professor, AS, Eastern Kentucky University, 2003
Baker, Lucinda, Associate Professor, MA, Ohio University, 1997
Baker, Melinda, Instructor, DNP, University of Kentucky, 2011
Ball, Andrew Barrett, Associate Professor, MA, University of Kentucky, 1988
Barber, Antonio, Instructor, AAS, Central Kentucky Technical College, 2003
Barber, Cynthia E., Professor, MAT, University of Kentucky, 1984
Baxter, Martin S, Associate Professor, MEd, Eastern Kentucky University, 2012
Beaumier, Matthew, Instructor, MA, University of Kentucky, 2011
Benton, Michael D, Associate Professor, MA, Bowling Green State University, 2000
Biegas, Robert J, Associate Professor, MA, Eastern Kentucky University, 1998
Birch, Timothy E, Associate Professor, MFA, University of Kentucky, 2012
Birchfield, Martha J, Professor, MLS, Florida State University, 1976
Bishop, Annette K, Associate Professor, BA, Earlham College, 1967
Black, Ina Kaye, Associate Professor, MS, Eastern Kentucky University, 1997
Blankenship, Paul D, Professor, MS, West Virginia University, 1990
Baylor, Mary, Associate Professor, MS, University of Kentucky, 2002
Boes, Don, Associate Professor, MFA, Indiana University, 1985
Bradley, James W, Associate Professor, MS, University of South Carolina, 1999
Breeding, Sharon K, Professor, MA, Morehead State University, 1980
Bronner, Nancy, Associate Professor, MSN, University of Kentucky, 1979
Brown, Dana, Associate Professor, BS, Murray State University, 2002
Buckner, Terry, Professor, MSLS, University of Kentucky, 2001
Callan Jr, Paul C, Associate Professor, MS, Eastern Kentucky University, 1992
Camargo, Irene, Assistant Professor, M.A., East Central Oklahoma University, 1994
Carr, Judith, Assistant Professor, DPH, University of Kentucky, 2008
Chester, William, Instructor, BS, Eastern Kentucky University, 2011
Chirwa, Robert M, Associate Professor, MS, University of Kentucky, 1990
Clark, Debbie, Instructor, BSN, University of Kentucky, 1994
Clark, Jamie, Assistant Professor, BA, Morehead State University, 2002
Coffey, Bobby J, Associate Professor, MS, Eastern Kentucky University, 2006
Collins, Amy, Instructor, MSN, Kentucky University, 2015
Congleton, Yasemin K, Associate Professor, PhD, University of Kentucky, 2005
Cook, Karalynn, Instructor, MS, BYU, 1996
Coulston, Charles Hamilton, Professor, MEd, University of Kentucky, 1995
Craycraft, Kevin, Associate Professor, AAS, Central Kentucky Technical College, 2005
Cropper, Maureen Elizabeth Tobin, Associate Professor, MSIS, Louisiana State University, 2004
Davis, Robin M, Professor, MS, University of Kentucky, 1981
Unruh, Timothy J, Associate Professor, BS, University of Louisville, 1996
Watts, Jean, Associate Professor, MEM, Duke University, 1987
Webb, Dixie, Assistant Professor, MSN, University of Kentucky, 1977
Webster-Little, Stacy, Associate Professor, MA, University of Nebraska Lincoln, 1996
Welch, Mark A, Professor, BS, Eastern Kentucky University, 1991
Wheeler, Yules, Associate Professor, MA, Campbellsville College, 2008
White, Steven J, Professor, PhD, University of Illinois, 1990
White, Tanya, Associate Professor, MA, University of Kentucky, 1971
Whitescarver, Shirley Ann, Professor, PhD, University of Kentucky, 1987
Williams, Celena, Instructor, MSN, Vanderbilt University, 2005
Williams, Laura A, Associate Professor, MA, Eastern Kentucky University, 1997
Williamson, Melanie Gail, Professor, MS, University of Kentucky, 2005
Wilson, Vicki Kegley, Professor, MA, University of Kentucky, 1982
Wiseman, Jackie, Professor, MS, Eastern Kentucky University, 1988
Womack, Becky J, Professor, MA, University of Mississippi, 1975
Worth, Benjamin James, Professor, PhD, University of Kentucky, 2004
Wyatt, Nelda K, Associate Professor, EdD, University of Kentucky, 1999
Yager, Constance, Associate Professor, BSN, University of Kentucky, 1991
Zeps, Valdis J, Associate Professor, PhD, University of Washington, 1989
Mission Statement/Status of Accreditation

Elizabethtown Community and Technical College, a member of the Kentucky Community and Technical College System, is a comprehensive, open-access, public two-year degree granting institution, responding to and serving the needs of our diverse communities. Through a progressive teaching and learning environment, the college provides opportunities for students to prepare to live and work in a dynamic world.

Elizabethtown Community and Technical College accomplishes its mission by providing:

- Associate in Arts and Associate in Science degree programs which provide students with the opportunity to transfer to a baccalaureate degree-granting institution.
- Associate in Applied Science degree, diploma, and certificate programs as well as courses to prepare students to excel in a competitive, global work force.
- Continuing and life-long education, short-term customized training for business and industry, designed to proactively strengthen the work force and expand the skill sets, knowledge, and cultural enrichment of the community.
- Developmental education courses designed to enhance the probability of success in academic and technical courses.
- Associated services that support student development and success such as academic advising, library services, individualized tutoring, assessment, career counseling, and activities which provide opportunities for enrichment of student life.

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

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

Academic Programs

Transfer Curricula

- Associate in Arts
- Associate in Science

Occupational/Technical Curricula

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

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

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

Contact Information

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

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

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

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

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

Counseling, Advising & Transfer
(270) 769-8695
Disability Services
(270) 706-8455
Human Resources
(270) 706-8819
Library
(270) 706-8812
Public Relations
(270) 706-8530
Veterans Affairs
(270) 706-8815
Workforce Solutions
(270) 706-8700
Website
elizabethtown.kctcs.edu
Ray, Rachel, Assistant Professor, MA, Indiana University, 2005
Redmon, Jason, Assistant Professor, MA, Northern Michigan University, 2007
Reed, Joseph, Instructor, AAS, Elizabethtown Community & Technical College, 2008
Richard, Amanda, Assistant Professor, MS, Texas A & M University, 2011
Rigney, Mary Alisa, Associate Professor, MA, Western Kentucky University, 2001
Rivers, Jeffrey, Associate Instructor, AAS, Elizabethtown Community & Technical College 2005
Roberts, Phillip, Assistant Professor, MBA, University of Phoenix, 2011
Schork, James E, Professor, EdD, Northern Illinois University, 1994
Shank, Kevin, Assistant Professor, MA, University of Louisville, 2008
Slone, Anthony, Associate Professor, MBA, Ashland University, 2001
Smith, Kara, Instructor, MS, McKendree University, 2014
Spalding, Jared C, Professor, BS, Western Kentucky University, 2002
Spratt, Sharon L, Professor, MA, Western Kentucky University, 1989
Stearns, Gary M, Professor, PhD, University of Kentucky, 1990
Sturgeon, Paul D, Professor, BS, University of Louisville, 1993
Sutherland, Marty L, Professor, BS, Southern Illinois University, 1996
Tabor, Sara, Instructor, AOS, Le Cordon Blue, 2007
Thomas, Dora Kay, Professor, MSN, Western Kentucky University, 2005
Thompson, Ann B, Professor/Librarian I, MLS, Indiana University, 1975
Towell, Elizabeth G, Professor, MA, University of Kentucky, 1995
Tungate, Donnetta, Instructor, MS, Walden University, 2014
Vail, James A, Professor, MS, University of Kentucky, 1978
Valora, Joseph Lee, Instructor, AAS, Elizabethtown Community and Technical College, 2013
Vance, Alan, Instructor, MFA, Miami University, 2008
Walston, Patricia, Associate Professor, MA, University of Louisville, 2000
Wicks, Edward, Assistant Professor, MS, Syracuse University, 2001
Wiles, Matthew W, Instructor, PhD, University of Louisville, 2014
Williams, Barry A, Instructor, MA, Austin Peay State University, 2010
Williams, Richard D, Associate Professor, MA, Western Kentucky University, 1978
Wolf, Joe, Associate Professor, PhD, University of Kentucky, 1992
Wolfe, Martha T, Professor, MS, University of Kentucky, 1978
Woodson, Robert, Associate Professor, AAS, Elizabethtown Community & Technical College, 2004
Yates, Jennifer, Instructor, MS, Western Kentucky University, 2012
Yates, Rita Jo, Professor, MSSW, University of Louisville, 1995
Young, Cody, Assistant Professor, AAS, Bluegrass Community & Technical College, 2004
Zulevich, Louis, Associate Professor, MS, University of Louisville, 2002
Mission Statement/Status of Accreditation
Gateway Community and Technical College provides high quality, affordable, accessible, and inclusive postsecondary education and training resulting in a positive contribution to the economic vitality of the region and enhanced quality of life for all citizens.

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

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

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

Academic Programs

Transfer Curricula
Associate in Arts
Associate in Science

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

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

Contact Information

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

Boone Campus
500 Technology Way
Florence, KY 41042

Covington Campus
1025 Amsterdam Rd.
Covington, KY 41011

Edgewood Campus
790 Thomas More Parkway
Edgewood, KY 41017

Urban Center
525 Scott Boulevard
Covington, KY 41011

General Information
Admissions 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]
Disability Services (859) 442-4120
Financial Aid 1-855-3GO-GCTC [1-(855) 346-4282]
Human Resources (859) 442-1150
Library and Information Services (859) 442-4162
Marketing and Public Relations (859) 442-1172
Registrar (859) 442-1136
Safety and Security (859) 442-4129
Transfer Director (859) 442-1183
Urban Center (859) 442-1601
Veterans Affairs (859) 442-4171
Workforce Solutions (859) 442-1170
Website gateway.kctcs.edu
Facebook facebook.com/GatewayCTC
Administration

President
Dr. G. Edward Hughes

Executive Assistant to the President
Sharon Poore

Vice President for Academic Affairs
Dr. Teri VonHandorf

Executive Vice President for Strategic Initiatives
Dr. Patricia Goodman

Vice President for Business Affairs and Administrative Services
Jamie Younger

Vice President of Development and Strategic Partnerships

Vice President, Corporate College

Vice President, Student Development

Associate Vice President, Academic Support
Ingrid Washington

Associate Vice President, Student Development
Doug Penix

Associate Vice President, Knowledge Management
Mallis Graves

Dean, Enrollment Services
Vacant

Dean, Workforce Solutions
Dr. Susan Santos

Dean, Arts and Sciences

Dean, IT and Professional Services

Dean of Manufacturing and Engineering Technologies

Dean, Transportation Technologies

Dean, Health Professions

Registrar

Special Assistant to the President

Special Assistant to the President

Regional Director of Adult Education/COMPASS Coordinator

Director, Adult Education, Grant County

Director, Advising Center

Director, Counseling

Director, Disability Services

Director, Early College Initiatives

Director, Financial Aid

Director, Grants and Contracts

Director, Inclusion and Cultural Initiatives

Director, Human Resources

Director, Information Services

Director, Knowledge Management

Director, Library and Information Services

Director, Maintenance and Operations

Director, Marketing and Public Relations

Director, North Central Area Health Education Center

Director, Safety and Security

Director, Teaching and Learning

Director, Student Support Services

Director, Transfer Services

Colleges

Facility

Albert, Stephanie Winter, Associate Professor, MEd, Northern Kentucky University, 1993

Auburger, Anne, Instructor, BSN, Wheeling Jesuit University, 1992

Bethel, Carol L, Professor, MBA, Xavier University, 1989

Bloom, Dawn, Instructor, MPH, Walden University, 2009

Bloom, Antoinette, Assistant Professor, 19Years Teaching Experience, 14Years Occupational Experience

Blum-Pretty, Sherry, Assistant Professor, MA, Northern Kentucky University, 2010

Bowen, Richard, Professor, AAB, Cincinnati State Technical & Community College, 1976

Burch, Courtney, Associate Professor, MA, Northern Arizona University, 2009

Camm, Jana, Associate Professor, MEd, Northern Kentucky University, 1981

Carrino, Amy, Assistant Professor, JD, Salmon P Chase College of Law, 1988

Carter, Amber, Associate Professor, BS, Eastern Kentucky University, 2009

Cathcart, John, Assistant Professor, MS, Texas A&M University, 2010

Chaney, Susan, Associate Professor, MEd, Northern Kentucky University, 1980

Collier, Samuel E, Associate Professor, BA, Northern Kentucky University, 2013

Collins, Thomas W, Professor, BS, University of Cincinnati, 1977

Crawford, Charles, Instructor, 1Year Teaching Experience, 11Years Occupational Experience, ASE Master Certification

Czirr, Karen, Instructor, MS, St. Joseph University, 1993

Da Silva, Freas, Associate Professor, MA, Indiana State University, 2008

Dameron, Michelle, Instructor, MA, University of the Cumberlands, 2010

DeBerry, John, Associate Professor, MA, University of Wyoming, 2003

Decle Williate, Holly Michelle, Professor, PhD, University of Louisville, 2003

Donohoo, Kevin H, Associate Professor, AS, University of the State of New York, 1982

Down, Sharon, Instructor, MA, University of Virginia, 1993

Ellis, Melodie, BA, Thomas More College, 1990

Ervin, Justin, Associate Professor, PhD, Northern Arizona University, 2011

Frazier, Paul, Assistant Professor, PhD, University at Albany SUNY, 2001

Fritsch, Denise, Instructor/Library IV, MS, University of Kentucky, 2007

Fritz, Diane, Associate Professor, MS, Medical University of Ohio, 1997

Gallahger, Richard, Instructor, BA, Thomas More College, 2014

Gayle, Veronica, Instructor, BS, Eastern Kentucky University, 1971

Grooms, Chad M, Assistant Professor, MBA, Morehead State University, 1998

Hanlon, John T, Associate Professor, BS, Northern Kentucky University, 1998

Harris, Vernon R, Associate Professor, BS, Northern Kentucky University, 2000

Hayesbert, Ronald, Assistant Professor, BTM, DeVry University, 2009

Herzog, Tracy, Instructor, BSN, Northern Kentucky University, 2007

Honu, Yohanes, Professor, PhD, Southern Illinois University, 2004

Janss, Lori, Instructor/Library IV, MS, University of Illinois at Urbana – Champaign, 2014

Jing, Weizhong, Associate Professor, MS, New Jersey Institute of Technology, 1998

Jones, Kenneth, Assistant Professor, 9Years Teaching Experience, 12Years Occupational Experience, ASE Master Certification

Kane, Colleen N, Associate Professor, MEd, University of North Florida, 1980

Karlage, Martha, Instructor, BS, Eastern Kentucky University, 1986

Law, Chelsea, Instructor, MS, Clemson University, 2012

Laws, Sarah, Instructor, AAS, Gateway Community and Technical College, 2008

Lemaster, Jennifer, Instructor, BS, Eastern Kentucky University, 1999

Loh, Diana, Assistant Professor, MSN, Northern Kentucky University, 2011

Lybrook, Adam C, Instructor, Automotive Technician Diploma, Hibbing Community College, 2000

Mahan, Jerrell L, Assistant Professor, AAS, Northern Kentucky University, 1991

Mason, Meredith, Instructor, MSW, University of Michigan, 2011

Mathew, George, Professor, PhD, University of Kentucky, 1994

Mauk, Craighton, Professor, PhD, Oregon State University, 1982

Mauk, Teresa Norton, Associate Professor, MS, University of Kentucky, 1998

McKenna, Kerri, Associate Professor, EdD, Northern Kentucky University, 2011

Necley, 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

Popple, Elizabeth, Assistant Professor, BA, College of Mount St. Joseph, 1993

Praswater, Angela, Instructor, MBA, Xavier University, 2009

Ramanaya, Deepanbashanara, Associate Professor, MS, Morehead State University, 2008

Rexords, Jon, Instructor, BA, Centre College, 1995

Rice, Barbara, Assistant Professor, MBA, West Virginia University, 1997

Rickert, Patrick E., Associate Professor, MS, University of Wisconsin, 2000

Riley, Michael P, Instructor, MBA, Morehead State University, 2005

Riley, Michael K, Instructor, AAS, Morehead State University, 1983

Rizenenthaler, Nancy A, Associate Professor, BS, Northern Kentucky University, 2001

Rosenberg, Lisa, Instructor, Automotive Technician Diploma, Community College, 2000

Rosenberg, Larry, Instructor, AAS, Morehead State University, 1983

Schafer, David, Instructor, MA, Northern Kentucky University, 2013

Schilling, Judith C, Assistant Professor, MEd, Northern Kentucky University, 1987

Slezar, Thomas J, Instructor, Automotive Technician Diploma, Pinellas Vocational Technical Institute, 1986

Settlemuir, Beth, Assistant Professor, ME, University of Cincinnati, 2008

Shearer, Joseph, Associate Professor, MS, University of Kentucky, 2001

Sickman-Hall, Stacey L., Assistant Professor, MS, University of Cincinnati, 2008

Smith, Sarah, Instructor, MA, College of Mount St. Joseph, 2008

Stewart, Gregory, Assistant Professor, PhD, Ohio University, 1993

Stockslager, Robyn, Assistant Professor, MA, University of Cincinnati, 2004

Stroud, Reva, Instructor, BS, Northern Kentucky University, 2010

Texter, Mary, Assistant Professor, MA, Northern Kentucky University, 2006

Thomas, Theresa, Associate Professor, Master of Design, University of Cincinnati, 2006

Valette, Natasha, Assistant Professor, MA, Bowling Green State University, 2012

Vieira, Rachel, Instructor, Practical Nurse Diploma, Gateway Community and Technical College, 2005

Warburton, Charles, Associate Professor, MA, University of Cincinnati, 2006

White, Gwendolyn Rene, Professor, MBA, Morehead State University, 2007

Wright, Dee, Associate Professor, 13Years Teaching Experience, 26Years Occupational Experience
Hazard Community and Technical College

Mission Statement/Status of Accreditation

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

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

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

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

Academic Programs

Transfer Curricula
- Associate in Arts
- Associate in Science

Transfer Curricula/Art Related

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

- Visual Art (A)

Occupational/Technical Curricula

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

- Air Conditioning Technology (C, D)
- Automotive Technology (C, D, A)
- Business Communications (C)
- Business Studies:
  - Business Administration Systems (C, D, A)
  - Medical Information Technology (C, D, A)
  - Collision Repair Technology (C, D)
  - Computer Aided Drafting and Design (C, D)
  - Computer and Information Technologies (C, A)
  - Cosmetology (C, D)
  - Criminal Justice (C, A)
  - Diagnostic Medical Sonography (A)
  - Diesel Technology (C, D)
  - Emergency Medical Services – Paramedic (C)
  - General Occupational/Technical Studies (A)
  - Health Information Technology (C, A)
  - Heavy Equipment Operation (C, D)
  - Human Services (C, A)
- Interactive Design and Technology (C)
- Interdisciplinary Early Childhood Education (C, D, A)
- Manufacturing Industrial Technology:
  - Electrical Technology (C, D)
  - Medicaid Nurse Aide (C)
  - Medical Laboratory Technology (C)
  - Nursing (A)
  - Physical Therapist Assistant (A)
  - Practical Nursing (D)
- Professional Studio Artist (A)
- Radiography (C, A)
- Surgical Technology (A)
- Surveying & Mapping Technology (C)
- Visual Communication:
  - Multimedia (C, A)
  - Welding Technology (C, D)

Contact Information

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

Hazard Campus
One Community College Dr.
Hazard, KY 41701

Technical Campus
101 Yo Tech Dr.
Hazard, KY 41701

Lees College Campus
601 Jefferson Ave.
Jackson, KY 41339

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

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

General Information

Academics (606) 487-3502
Admissions (606) 487-3216
Business Office 1-855-6GO-HCTC (1-855-646-4282)
Disability Services (606) 487-3405
Financial Aid 1-855 6GO-HCTC (1-855-646-4282)
Human Resources (606) 487-3111
Library (606) 487-3304
Marketing/Public Relations (606) 487-3141
Records (606) 487-3311
Transfer Information (606) 487-3155
Veterans Affairs (606) 487-3059
Workforce Solutions (606) 487-3136
Website hazard.kctcs.edu
Administration

President/CEO: Dr. Stephen Greiner
Assistant to the President: Delcie Combs
Vice President of Academics Services/Provost: Dr. Kathy Smoot
Vice President of Student Services: Germaine Shaffer
Chief Business Services Officer: Connie Watts
Chief Information Officer: Donna Roark
Senior Director of Human Resources: Vickie Combs
Director of Public Relations: Evelyn Wood
Dean of Business Services: Jackie Hall
Dean of Computer and Online Technologies: Dr. Ella Strong
Dean of Allied Health Sciences Technologies: Anna Napier
Dean of Heritage, Humanities & Fine Arts: Leila Sandlin Smith
Dean of Occupational Technologies: Dr. Jennifer Lindon
Dean of Sciences & Mathematics: Leila Sandlin Smith
Dean of Retention Services: Dr. Beth Pennington
Director of Institutional Research & Effectiveness: Alexis Malepeai

Faculty

Adams, Douglas D, Associate Professor, AAS, Hazard Technical College, 2002
Adams, Mary D, Professor, AM, Morehead State University, 1979
Back, Renee Tabor, Professor, MS, University of Kentucky, 1993
Back, Tony, Professor, BS, Morehead State University, 1999
Barnes Jr, Donald R, Professor, MS, Oklahoma State University, 1992
Bates, Lauren Ann, Associate Professor, MSN, Eastern Kentucky University, 2009
Begley, Dan H, Professor, MBA, University of Kentucky, 1998
Blair, Linda C, Professor, AB, Eastern Kentucky University, 1963
Boothe, Jenna L, Associate Professor, MSN, Regis University, 2006
Bowling, Randy L, Assistant Professor, 4+5 year Teaching Experience, 27 years Occupational Experience
Bowling, Tracy L, Professor, DPT, University of Kentucky, 2010
Branson, Cathy A, Librarian II, MLSLS, 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
Bueh, Carolyn, Professor, MA, Eastern Kentucky University, 1996
Campbell, Venita Carol, Professor, MA, Union College, 1980
Campbell, Jesse A, Associate Professor, BS, Eastern Kentucky University, 1975
Caudill, Jimmy D, Associate Professor, Diploma, Hazard Technical College, 1987
Collins, Gwendolyn, Professor, MSN, University of Kentucky, 1982
Combs, Donna R, Professor, MSN, University of Kentucky, 1986
Combs, Jerry M, Professor, MA, Morehead State University, 2011
Cornett, Christel N, Professor, BSN, Eastern Kentucky University, 1994
Cornett, Willie, Assistant Professor, AAS, Hazard Community and Technical College, 2009
Cravens, Thomas L, Assistant Professor, MS, University of Kentucky, 1989
Currie, Paul B, Associate Professor, DVM, University of Georgia, 2000
Davidson, Gwendolyn, Instructor, MS, Morehead State University, 2014
Davis, Tammy A, Instructor, AAS, Somerset Community College, 2013
Davison, Patrick S, Librarian II, MLSLS, University of Kentucky, 1990
Dixon, James M, Associate Professor, MA, Northern Arizona University, 1983
Dunn, Timothy J, Professor, MA, University of Kentucky, 1989
Flannery, Madelene K, Professor, MA, Columbia University, 1986
Flynn, Michael, Instructor, MFA, University of Montana, 2012
Francis, Sam W, Associate Professor, PhD, University of Kentucky, 1998
Frazier, David L, Professor, MBA, Morehead State University, 1998
Gainer, Victor, Assistant Professor, 12 years Occupational Experience
Gibson, Diane A, Assistant Professor, MS, Louisiana Tech University, 2009
Globig, Sabine A, Professor, MS, Rutgers University, 1988
Gray, Michael, Instructor, MFA, Florida Atlantic University, 2012
Green, Janelle, Instructor, MS, Mayville State University, 2011
Hagans-Shepherd, Ludrenia Sue, Professor, MSN, Eastern Kentucky University, 2000
Herald, Patricia Ann, Professor, DSN, University of Alabama, 1993
Holl, Richard E, Professor, PhD, University of Kentucky, 1996
Howard, Arzella W, Associate Professor, MSN, University of Phoenix, 2008
Howard, Cluster C, Professor, MA, Morehead State University, 1983
Ingram, Danny M, Professor, AS, Eastern Kentucky University, 2001
Ison, Lisa, Professor, MS, University of Wisconsin, 1987
Jackson, Jennifer L, Associate Professor, MS, Eastern Kentucky University, 1998
Jarvis, Shalena, Assistant Professor, AAS, Pitt Community College, 2006
Johnson, B Susan, Professor, AS, Eastern Kentucky University, 1998
Kidd Jr, Ralph E, Professor, MS, Eastern Kentucky University, 1991
Lewis, Everett C, Assistant Professor, 25 years Occupational Experience
Lindon, Jennifer A, Professor, PhD, Mississippi State University, 2010
Lucero, Scott C, Professor, MA, University of Kentucky, 1992
Lutes, Jennifer, Instructor, MA, Morehead State University, 2010
Madden, James Daniel, Associate Professor, MA, University of the Cumberlands, 2010
Malepeai, Alexis, Associate Professor, BA, Brown University, 2003
Martin, Christina R, Associate Professor, MSN, Eastern Kentucky University, 2009
Martin, Joanna H, Assistant Professor, Diploma, Cumberland Valley Technical College, 1999
Mathes II, John P, Assistant Professor, MA, East Tennessee State University, 2006
May, Scott R, Professor, MS, Indiana State University, 1990
Medlin, Lana, Instructor, MA, University of North Alabama, 2005
Medlin, Rex, Assistant Professor, 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
Morris, Lonnie, Assistant Professor, MA, Union College, 1980
Mullins, Denessa, Instructor, BA, Ashford University, 2010
Napier, Anna S, Professor, MSW, University of Denver, 1991
Napier, Samuel Scott, Instructor, 18 years Teaching Experience, 18 years Occupational Experience
Neace, Thomas D, Professor, MA, Eastern Kentucky University, 1996
Osborne, Norman Dean, Instructor, 32 years Teaching Experience, 28 years Occupational Experience
Pennington, Beth Ann, Assistant Professor, Ed. D., Morehead State University, 2013
Petrey-Blandau, Sandra E, Professor, MA, Eastern Kentucky University, 1982
Phipps, Sandra K, Professor, MA, Morehead State University, 1988
Plummer, Cynthia S, Professor, MS, University of Kentucky, 1995
Reed, Ronald S, Professor, MA, University of Dayton, 1985
Richie, Tammy Lene, Professor, MBA, Morehead State University, 1985
Rogers, Hannah, Librarian IV, MA, University of Kentucky, 2009
Sasser, Lynn D, Professor, MS, Eastern Kentucky University, 1972
Shaffer, Germaine B, Professor, JD, University of Louisville, 1990
Sexton, Rachel Juanita, Associate Professor, Diploma, East Kentucky Beauty College, 1998
Sipple, Savannah, Assistant Professor, MFA, Spalding University, 2008
Smith, Beverly A, Assistant Professor, BSN, Eastern Kentucky University, 2009
Smith, Leila Sandlin, Professor, MBE, Morehead State University, 1987
Smith, Walter, Assistant Professor, MS, University of Cincinnati, 2007
Smoot, R Kathy, Associate Professor, EdD, University of Kentucky, 1984
Spencer-Barnes, Amanda G, Assistant Professor, MA, Morehead State University, 2007
Stamper, Vera Dawn, Assistant Professor, DPT, University of Kentucky, 2011
Strickland, William M, Professor, MA, Morehead State University, 1981
Strong, Ella J, Professor, Ed. D., University of Kentucky, 2011
Swafford, Bryan, Assistant Professor, BA, Alice Lloyd College, 2000
Terry, Homer, Professor, MS, Eastern Kentucky University, 2004
Turner, Chestina, Assistant Professor, MA, Eastern Kentucky University, 2007
Vance, DeLores S, Professor, MBE, Morehead State University, 1995
Vergne, Stephanie L, Professor, MA, Morehead State University, 2001
Watts, Natasha, Instructor, MS, Eastern Kentucky University, 2012
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
Wood, Jeremy R, Professor, MS, University of Tennessee, 1993

21
Academic Programs

Transfer Curricula

- Associate in Arts
- Associate in Science

Occupational/Technical Curricula

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

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

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

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

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

Mission Statement/Status of Accreditation

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

Welcome Center (270) 827-1867 or (800) 696-9958
Admissions 1-855-GO-HCC44 (855-464-2244)
Advising (270) 831-9610
Assessment Center (270) 831-9772
Business Office 1-855-GO-HCC44 (855-464-2244)
Continuing Education (270) 831-9658
Disability Services (270) 831-9783
Financial Aid 1-855-GO-HCC44 (855-464-2244)
Human Resources (270) 831-9617
Library (270) 831-9760
Orientation (270) 831-9607
Public Relations (270) 831-9805
Records 1-855-GO-HCC44 (855-464-2244)
Technology Solutions Help Desk (270) 831-9616
Transfer Information (270) 831-9828
Veterans Affairs (270) 831-9685
Workforce Solutions (270) 831-9658

General Information

Contact Information

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

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

Administration

Becker, Kara, Assistant Professor, ME, Western Kentucky University, 2003
Bennett, Brenda, Associate Professor, MS, Western Kentucky University, 1995
Blackburn, Catherine, Professor, MFA, East Carolina University, 1993
Buchanan, Marlena, Associate Professor, MSN, University of Southern Indiana, 2000
Burnett, Terri, Instructor, MSN, University of Southern Indiana, 2013
Bullock, Kimberly, Instructor, BSN, Murray State University, 2011
Burton, Sharon, Professor, MA, Ohio University, 1983
Chappell, Michelle, Assistant Professor, MS, Morehead State University, 2011
Crick, Sarah, Instructor, BSN, Murray State University, 2015
Cherry, Doris, Professor, MS, Western Illinois University, 1979
Davis, Yvonne, Associate Professor, MSN, University of Southern Indiana, 2004
Dean, Kim, Professor, MS, Western Kentucky University, 1986
Fritts, David, Professor, PhD, Ohio University, 2012, MA, Ohio University, 1984
Fuchs, Fennae, Professor, MSN, University of Texas at Austin, 1974
Furbush, Frank, Associate Professor, MS, Southern Connecticut College, 1982

Faculty

Business Office 1-855-GO-HCC44 (855-464-2244)
Continuing Education (270) 831-9658
Disability Services (270) 831-9783
Emergency Medical Technician (C)
Financial Aid 1-855-GO-HCC44 (855-464-2244)
Human Resources (270) 831-9617
Library (270) 831-9760
Orientation (270) 831-9607
Public Relations (270) 831-9805
Records 1-855-GO-HCC44 (855-464-2244)
Technology Solutions Help Desk (270) 831-9616
Transfer Information (270) 831-9828
Veterans Affairs (270) 831-9685
Workforce Solutions (270) 831-9658

Henderson Community College
<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Institution</th>
<th>Degree(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mihankhah</td>
<td>Professor, MS</td>
<td>Ball State University</td>
<td>1979</td>
</tr>
<tr>
<td>Murch</td>
<td>Associate Professor, MSN</td>
<td>Murray State University</td>
<td>2010, DNP</td>
</tr>
<tr>
<td>Owen</td>
<td>Associate Professor, EdD</td>
<td>University of Phoenix</td>
<td>2008</td>
</tr>
<tr>
<td>Owens</td>
<td>Professor, BA</td>
<td>University of Kentucky</td>
<td>1970, MLS, Purdue University</td>
</tr>
<tr>
<td>Patsalides</td>
<td>Professor, MA</td>
<td>Western Kentucky University</td>
<td>1997</td>
</tr>
<tr>
<td>Phelps</td>
<td>Assistant Professor, BS</td>
<td>Kentucky Wesleyan College</td>
<td>2002</td>
</tr>
<tr>
<td>Reid</td>
<td>Professor, MLS</td>
<td>University of Kentucky</td>
<td>1993, MA, Purdue University</td>
</tr>
<tr>
<td>Siewert</td>
<td>Professor, MSN</td>
<td>University of Evansville</td>
<td>1978, Des Moines University</td>
</tr>
<tr>
<td>Strawn</td>
<td>Professor, MA</td>
<td>Western Kentucky University</td>
<td>1999, MLS, Emporia State University</td>
</tr>
<tr>
<td>Tutt</td>
<td>Associate Professor, MA</td>
<td>Murray State University</td>
<td>1981, MBA, University of Evansville</td>
</tr>
<tr>
<td>Winstead</td>
<td>Professor, MS</td>
<td>Eastern Kentucky University</td>
<td>1985</td>
</tr>
<tr>
<td>McCarty</td>
<td>Professor, MA</td>
<td>Western Kentucky University</td>
<td>1991</td>
</tr>
<tr>
<td>Griffis</td>
<td>Associate Professor, MA</td>
<td>Eastern Illinois University</td>
<td>2007</td>
</tr>
<tr>
<td>Hunt</td>
<td>Professor, MS</td>
<td>University of Kentucky</td>
<td>1980</td>
</tr>
<tr>
<td>Jones</td>
<td>Associate Professor, MBA</td>
<td>National University</td>
<td>2000</td>
</tr>
<tr>
<td>Joy</td>
<td>Associate Professor, MA</td>
<td>Murray State University</td>
<td>2003</td>
</tr>
<tr>
<td>Kasenow</td>
<td>Professor, MA</td>
<td>Kent State University</td>
<td>1987</td>
</tr>
<tr>
<td>Kipling</td>
<td>Instructor, BS</td>
<td>University of Southern Indiana</td>
<td>2010, MPH, Des Moines University</td>
</tr>
<tr>
<td>Knecht</td>
<td>Professor, MBA</td>
<td>Western Kentucky University</td>
<td>1999, MLS, Emporia State University</td>
</tr>
<tr>
<td>Maltby</td>
<td>Professor, MA</td>
<td>Ohio University</td>
<td>1983</td>
</tr>
<tr>
<td>Mattingly</td>
<td>Assistant Professor, MSN</td>
<td>University of Southern Indiana</td>
<td>2012, MBA, University of Evansville, 1989, DNP, Western Kentucky University, 2015</td>
</tr>
<tr>
<td>McCarty</td>
<td>Professor, MA</td>
<td>Western Kentucky University</td>
<td>1991</td>
</tr>
<tr>
<td>Gary</td>
<td>Professor, MA</td>
<td>Florida State University</td>
<td>1991</td>
</tr>
<tr>
<td>Griffis</td>
<td>Associate Professor, MA</td>
<td>Eastern Illinois University</td>
<td>2007</td>
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<tr>
<td>Hunt</td>
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<td>University of Kentucky</td>
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<tr>
<td>Jones</td>
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<tr>
<td>McCarty</td>
<td>Professor, MA</td>
<td>Western Kentucky University</td>
<td>1991</td>
</tr>
</tbody>
</table>
Mission Statement/Status of Accreditation
Hopkinsville Community College is an inclusive, student-centered educational institution that provides accessible, innovative, and comprehensive learning opportunities within a supportive community that encourages academic excellence. The college sustains strong educational, community, military, agricultural, and economic partnerships to improve the quality of life in the southern Pennyrile region and Fort Campbell.

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

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

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

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

Academic Programs

Transfer Curricula
- Associate in Arts
- Associate in Science

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

Advanced Nursing Assistant (C)
Air Conditioning Technology (C)
Agricultural Technology (C, D, A)
Automotive Technology (C)
Business Studies: Administrative Office Technology (C, A)
          Business Administration Systems (C, D, A)
          Medical Information Technology (C, D, A)
Clinical Laboratory Technician (C)
Computer Aided Drafting and Design (C, D)
Computer and Information Technologies (C, A)
Computerized Manufacturing and Machining (C, D)
Construction Technology (C)
Criminal Justice (C, A)
Diesel Technology (C, D, A)

Engineering and Electronics Technology (C, D, A)
General Occupational/Technical Studies (A)
Health Science Technology (A)
Human Services (C, A)
Interdisciplinary Early Childhood Education (C, D, A)
Manufacturing Industrial Technology: Electrical Technology (C, D)
          Industrial Maintenance Technology (C, D)
Nursing (A)
Pharmacy Technology (C)
Practical Nursing (C, D)
Quality Management Systems (C, D)
Welding Technology (C)

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

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

General Information
(270) 707-3700

Admissions 1-855-22GO-HCC (1-855-224-6422)
  Pat Hinton (270) 707-3813
Adult Education (270) 707-3926
  Gary Dawson
Advising Center (270) 707-3820
  Deloria Scott
Testing Center (270) 707-3826
  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
  Carol Kirves (270) 707-3750
Disability Services (270) 707-3801
  Dr. Jason Warren
Distance Learning Support (270) 707-3903
  Ryan Ray
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
  Dr. Jason Warren
Library (270) 707-3762
  Ann Nichols
Public Relations and Marketing (270) 707-3732
  Rena Young
Records/Registrar (270) 707-3811
  Melissa Stevenson
Mission Statement/Status of Accreditation
We open the door to quality education that promotes the economic and cultural vitality of our community, encourages all to discover and achieve their potential, and provides opportunities to turn dreams into realities.

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

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

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

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

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

Academic Programs

Transfer Curricula
Associate in Arts
Associate in Science

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

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

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

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

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

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

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

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

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

General Information
(502) 213-5333

Admissions
Bursar’s Office 1-855-2GO-JCTC (1-855-246-5282)
Business Office (502) 213-2103
Center for Community Workforce and Economic Development (502) 213-2223
Disability Services (502) 213-2449
Diversity (502) 213-2268
Financial Aid 1-855-2GO-JCTC (1-855-246-5282)
Human Resources
International Admissions (502) 213-2496
Library – Bullitt County (502) 213-7911
Library – Downtown (502) 213-2154
Library – Jefferson Technical (502) 213-4167
Library – Southwest (502) 213-7222
Library – Carrollton (502) 213-5220
Library – Shelby County (502) 633-3618
Marketing and Communications (502) 213-2400
Records (502) 213-4000
Transfer Information Liaison (502) 213-4000
Veterans Affairs (502) 213-2139
Admissions (502) 213-4000
Bursar’s Office 1-855-2GO-JCTC (1-855-246-5282)
Business Office (502) 213-2103
Center for Community Workforce and Economic Development (502) 213-2223
Disability Services (502) 213-2449
Diversity (502) 213-2268
Financial Aid 1-855-2GO-JCTC (1-855-246-5282)
Human Resources (502) 213-2118
Library – Bullitt County (502) 213-7911
Library – Downtown (502) 213-2154
Library – Jefferson Technical (502) 213-4100
Library – Southwest (502) 213-7222
Library – Carrollton (502) 732-4846
Library – Shelby County (502) 633-3618
Marketing and Communications (502) 213-2400
Records (502) 213-4000
Transfer Information Liaison (502) 213-4000
Veterans Affairs (502) 213-2139

Administration

President
Dr. Anthony Newberry
Provost and Vice President for Academic and Student Affairs
Dr. Diane Calhoun-French
Dean of Academic Affairs – Downtown Campus
Dr. Randall Davis
Dean of Academic Affairs – Southwest Campus
Dean of Academic Affairs – Jefferson Technical Campus
Dean of Nursing and Allied Health
Dr. Carolyn O’Daniel
Dean of Student Affairs – Downtown, Carrollton and Technical Campuses
Dr. Laura Smith
Dean of Student Affairs – Southwest, Shelby and Bullitt Campuses
Dean of System Initiatives
Vincent DiNoto Jr.
Director of Carrollton Campus
Susan Carlisle
Director of Shelby County Campus
Dr. John Wieland
Director of Bullitt County Campus
Donna Miller
Director of Human Resources
Toni E. Whalen
Department of Workforce Solutions
Mary Ann Hyland-Murr
Vice President for Planning, Effectiveness, and Research
Dr. Mary Jones
Vice President for Institutional Advancement/Marketing/Communications
Lisa Brosky
Division of Arts and Humanities – Downtown
Marlisa Austin
Division of Arts and Humanities – Southwest
Margaret Matheny
Division of Business – Downtown
Dr. Pam Besser
Division of Technology and Related Sciences
Dr. Bruce Jost
Division of Natural Sciences/Math – Downtown
Kathryn Lowrey
Division of Natural Sciences/Math – Southwest
Charles Purvis
Division of Social and Behavioral Sciences – Downtown
Charles McCombs
Division of Social Science and Business – Southwest
Cathy Wright
Division of Allied Health
Eva Ruth Olman
Division of Nursing
Sonia Rudolph
Division of Carrollton Campus Faculty
Caroline Reisner
Division of Shelby Campus Faculty
Pamela Larkin
Division Technical Campus Technology and Industry
Andrew Kornowski
Director of Library Services – Downtown, Carrollton, and Technical Campuses
Sheree Williams
Director of Library Services – Southwest, Bullitt County, and Shelby County Campuses
Rafe Johnson

Faculty
Ackerman, Jennifer, Associate Professor, MA, University of Louisville, 1993
Adams, Constance, Assistant Professor, MSN, McKendree University, 2007
Adams, James, Associate Professor, MHA, University of Phoenix, 2007
Adams, Jill, Associate Professor, MA, East Carolina University, 1998
Arterburn, Kay Pindexter, Professor, MAT, University of Louisville, 1987
Asamoah, Samuel R, Associate Professor, MBA, Pittsburg State University, 1989
Ash, Daniel W, Associate Professor, PhD, University of Louisville, 1988
Ashley, Barbara R, Professor, PhD, University of Pittsburgh, 1981
Attarzadeh, Hamid, Associate Professor, MS, University of Louisville, 1991
Austin, Marilisa R, Professor, MA, Union College, 1999
Bartley, Brandon, Professor, MS, Virginia Tech, 2003
Baughman, James G, Professor, PhD, University of Kentucky, 1976
Beebe, Patricia, Professor, MA, University of Kentucky, 1976
Olsen, Bobby G, Professor, MAT, Northwest Missouri State University, 1978
Oltman, Eva R, Professor, MEd, University of Louisville, 2003
Pack, Don, Professor, EdD, University of Louisville, 1999
Parry, Daniel, Associate Professor, EdD, University of Louisville, 2000
Peters, Jane, Associate Professor, PhD, University of Kentucky, 2005
Phillips, Greg, Assistant Professor; AAS, Jefferson Community and Technical College, 2012
Pilliteri, Gerald J, Assistant Professor; AAS, Jefferson Community & Technical College, 2012
Pitchford, Jennifer, Assistant Professor, BS, University of Evansville, 1997
Plappert, Wilson J, Assistant Professor, 17 Years Teaching Experience, 22 Years
Occupational Experience
Prather, Mark C, Associate Professor, BA, Indiana University, 1989
Pruet, Stephen R, Professor, PhD, University of Louisville, 1997
Purvis, Charles D, Professor, MS, State University of New York, 1989
Ragade, Amila R, Professor, PhD, University of Louisville, 1988
Rasras, Awad R, Associate Professor, MA, University of Kansas, 1985
Reisner, Caroline, Assistant Professor, MS, Eastern Kentucky University, 2007
Repper, Frank, Associate Professor, MM, Eastern Kentucky University, 1983
Riedel, Donna D, Associate Professor, MS, University of Massachusetts, 1987
Riedling, Robert L, Professor, MS, University of Louisville, 1997
Robertson, Else S, Professor, MAT, Spalding University, 1983
Robertson, Peter, Assistant Professor, MEd, University of Louisville, 2000
Rodgers, Claud D, Associate Professor, MA, University of Louisville, 1968
Rodski, Peter A, Professor, MS, Eastern Kentucky University, 1992
Rudolph, Sonia R, Associate Professor, MSN, Spalding University, 2003
Savels, Constance, Instructor, MPH, Ohio State University, 2003
Schneider, Lisa V, Associate Professor, PsyD, Spalding University, 1987
Schotter, Kara, Assistant Professor, MA, University of Louisville, 2012
Sellars, Telly R, Professor, EdD, Spalding University, 2006
Sexton, Gerald, Instructor, BT, Jacksonville State University, 1990
Sheilds, Kevin Blane, Instructor, BS, Kentucky Wesleyan College, 2013
Simon, Lisa, Assistant Professor, MFA, Michigan State University
Smithy, Pamela, Associate Professor, MS, Quinnipiac University, 2011
Snook, Stephen, Instructor, AAS, Jefferson Community and Technical College, 2014
Spears, Sandra L, Professor, MS, Western Kentucky University, 1974
Sprinkle, Amy C, Professor, MS, Eastern Kentucky University, 1984
Stevens, Becky, Professor, MAE, Western Kentucky University, 2008
Stewart, Amelia, Professor, PhD, Ohio University, 1987
Stewart, James H, Associate Professor, MS, Western Kentucky University, 1991
Stokes, Kevin B, Professor, MA, Washington State University, 1992
Taylor, Stacy, Associate Professor, MA, University of Louisville, 1999
Terhune, Jerry D, Professor, PhD, University of Minnesota, 1976
Tharpe, Byron F, Associate Professor, MA, University of Tulsa, 1997
Thomas, Leonard, Instructor, MA, University of Louisville, 2010
Thompson, Michael, Assistant Professor, PhD, University of Kentucky, 2000
Thorne, James G, Associate Professor, MAT, University of Louisville, 1976
Tomei Jr., Dontaie A, Assistant Professor, MA Eastern Illinois University, 1996
Tyler, Bonita, Assistant Professor, MA, Western Kentucky University, 2011
Varner, Katy L, Professor, EdD, Spalding University, 2000
Veigl, Victoria L, Associate Professor, PhD, Indiana University, 1980
Vogel, David M, Associate Professor, PhD, University of Louisville, 2002
Waggoner, RenaeY, Associate Professor, MA, Western Kentucky University, 1999
Walford, Ronald M, Professor, MA, University of Louisville, 1967
Wann, Regan M., Instructor, MA, University of Louisville, 2008
Ward, John, Associate Professor, MBA, University of Louisville, 2000
Warford, Benny F, Instructor, 10 years teaching experience, 20 years occupa-
tional experience
Washington, Janie L, Professor, MEd, University of Louisville, 2000
Watters, Keith B, Instructor, Certification in FAA Airframe and Powerplant
Webb, Linda, Associate Professor, MS, University of Louisville, 1998
Wechter, Bree, Associate Professor, MA, Eastern Illinois University, 2002
Weldon, Betty E, Professor, MA, University of Louisville, 1986
Wehe, Valerie J., Associate Professor, PhD, University of Cincinnati College of
Medicine, 2001
White, Deborah C, Professor, MSN, University of Kentucky, 1982
Wieland, John, Assistant Professor, PhD, Marquette University, 2001
Willburn, Mark S, Professor, PhD, Ohio University, 1987
Wiles, Thomas S, Professor, MS, University of Louisville, 1990
Wilkerson, Andrew, Assistant Professor, MS, University of Nebraska, 2010
Williams, Sheree Huber, Professor, MSLS, University of Kentucky, 1981
Wright, Catherine, Professor, MA, Marshall University, 1988
Wright, Mark, Professor, MEng, University of Louisville, 1992
Yocum, Heather L, Assistant Professor, MA, Northern Kentucky University,
2010
Younger, Christopher, Instructor, AAS, Jefferson Community and Technical Col-
lege, 2014
Zausch, Jo Fouts, Professor, EdD, Spalding University, 1996

**Correctional Sites**

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

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

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

**Pewee Valley (KCIW)**

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

*Note: HB 164 passed during the 2010 Kentucky General Assembly transferred 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

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

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

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

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

Academic Programs

Transfer Curricula
Associate in Arts
Associate in Science

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

- Advanced Integrated Technology (C, A)
- Air Conditioning Technology (C, D, A)
- Business Studies:
  - Business Administration Systems (C, D, A)
  - Medical Information Technology (C, D, A)
- Clinical Laboratory Technology (C, D, A)
- Computer and Information Technologies (C, A)
- Criminal Justice (C, A)
- Emergency Medical Services – Paramedic (C, A)
- Emergency Medical Technician (C)
- Energy Management (C, D, A)

- Engineering Related – Project Lead the Way (PLTW) (C)
- Fire/Rescue Science Technology (C, D, A)
- General Occupational/Technical Studies (A)
- Healthcare Technology Management (C, A)
- Human Services (C, A)
- Interdisciplinary Early Childhood Education (C, D, A)
- Mining Technology (C, A)
- Nursing (A)
- Occupational Therapy Assistant (A)
- Paralegal Technology (C, A)
- Physical Therapist Assistant (A)
- Practical Nursing (C, D)
- Radiography (A)
- Respiratory Care (A)
- Surgical First Assisting (C, A)
- Surgical Technology (C, D, A)
- Welding Technology (C, D)

Contact Information

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

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

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

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

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

General Information
(270) 821-2250

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

President
Dr. Judith L. Rhodes

Chief Academic Affairs Officer
Dr. Deborah M. Cox

Chief Student Affairs Officer
Dr. Jonathan V. Parrent

Chief Business Affairs Officer
E. Ray Gillaspie

Workforce Solutions
Michael A. Davenport

Grants, Planning, and Effectiveness
David A. Schuermier

Institutional Advancement
J. Christopher Woodall

Public Relations Coordinator
B. Joyce Riggs

Division of Applied Technologies
David C. Alisp

Division of Arts & Humanities
Christy S. Adkins

Division of Allied Health
Stephanie A. Taylor

Division of Nursing
E. Shannon Allen

Division of Mathematics and Sciences
Dr. John Lowbridge

Division of Social and Behavioral Sciences
Natalie F. Cooper

Faculty

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

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

Allen, Barton E, Instructor, BS, Western Kentucky University, 2002

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

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

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

Archila, Amberly Brooke, Assistant Professor, MA, Murray State University, 2009

Bagam, Paula J. Sinopoli, Instructor, MS, University of Southern Mississippi, 1996

Batts, Kevin C, Instructor, MBA, Murray State University, 2011

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

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

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

Burton, Misty, Assistant Professor, BS, Eastern Kentucky University, 1995

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

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

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

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

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

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

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

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

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

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

Deal, Robert Michael, Associate Professor, BS, Mid-Continental University, 2010

Edens, Kellie Brooke, Assistant Professor, MSN, Northern Kentucky University, 2014

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

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

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

Fouse, Patricia T, Instructor, MA, Murray State University, 2007

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

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

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

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

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

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

Hagan, Gregory D, Professor, MFA, Murray State University, 2007

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

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

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

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

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

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

Johnson, Bartley J, Instructor, MS, Southern Illinois University, 2015

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

Johnston, Kimberly A, Instructor, AAS, Madisonville Community College, 1997

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

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

Lange, Paul, Associate Professor, MS, Indiana University, 1996

Latham, Dawn L, Assistant Professor, MSN, Austin Peay State University, 2009

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

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

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

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

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

Lucett, Matthew S, Assistant Professor, BS, Western Kentucky University, 2014

Lutz, Rebecca Faith, Assistant Professor, MSN, Indiana Wesleyan University, 2012

Markwell, Greshin M, Instructor, MSN, Western Governors University, 2014

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

McClean, Nancy J, Associate Professor, MA, Murray State University, 1997

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

Mitchell, Judith A, Assistant Professor, BSN, Murray State University, 1999

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

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

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

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

Poole, Mary J, Associate Professor, MAEd, Western Kentucky University, 1984

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

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

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

Schnapf, Barbara A, Instructor, MS, University of Evansville, 1997

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

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

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

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

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

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

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

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

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

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

Vander Ploeg, Scott D, Professor, PhD, University of Kentucky, 1995

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

Wolfe, James Randolph, Instructor, AAS, Madisonville Community College, 1980

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

Wright, Debbie L, Professor, MA, Southern Illinois University, 1988

Young, Patricia A, Professor, MPA, Murray State University, 1999
Mission Statement/Status of Accreditation

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

Goals of the College:

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

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

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

Academic Programs

Transfer Curricula

- Associate in Arts
- Associate in Science

Occupational/Technical Curricula

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

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

Contact Information

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

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

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

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

Additional Sites

Rowan Campus Downtown Extension
229 Flemingsburg Road
Morehead, KY 40351
(606)780-0628
(606)780-0629
maysville.kctcs.edu
Morris, Melanie J, Professor, BSN, University of Kentucky, 1991
Muenks, Martha J, Professor, MA, University of Kentucky, 1993
Napier, Jery, Assistant Professor, PhD, University of Kentucky, 1997
Noble, Wendy, Associate Professor, MA, Morehead State University, 2009
Nolder, Deborah B, Professor, MSN, Northern Kentucky University, 2005
Ouderkirk, Jennifer, Instructor, AAS, Maysville Community and Technical College, 2011
Parker, Sally, Associate Professor, BSN, College of Mt St Joseph on the Ohio, 1979
Pasley, Terry L, Professor, MA, Northern Kentucky University, 1998
Pecco, Nicholas, Associate Professor, BS Morehead State University, 2005
Pemberton, Michael P, Assistant Professor, MS, University of Missouri – Columbia, 2009
Perkins, Brandin, Associate Professor, MS, Morehead State University, 2005
Redden, Carla S, Assistant Professor/Librarian IV, MLS, University of Kentucky, 2009
Reeder, Diana L, Associate Professor, AAS, Morehead State University, 1979
Sauer, Lena P, Assistant Professor, MA, Morehead State University, 2001
Sears, Christopher M, Associate Professor, PhD, University of Wisconsin–Milwaukee, 2007
Shaffer, Colette Lynn, Associate Professor, PhD, University of Cincinnati, 2001
Sharp, Mary J, Professor, MS, Morehead State University, 1994
Sims, Rhonda Y, Professor, MSN, Walden University, 2007
Slone-Crumbie, Donna, Associate Professor, MA, University of Kentucky, 2008
Smallwood, Sandra, Instructor, MA, Morehead State University, 1992
Staviski, Sharon, Instructor, BS, Northern Kentucky University, 1990
Swartz, Dennis Ray, Associate Professor, BS, Morehead State University, 2007
Taylor, Carrie L, Associate Professor, MA, Northern Kentucky University, 2009
Thornberry, Joan D, Associate Professor, MA, University of Kentucky, 1989

Thornberry, Tara C, Professor, MBA, Morehead State University, 1984
Thoroughman, Michelle, Instructor, BS, University of Kentucky, 2002
Vice, Marlene K, Professor, AA, Morehead State University, 2001
Walker, Melinda F, Assistant Professor, MA, Morehead State University, 2004
Wallace, Tony L, Professor, BS, Morehead State University, 2007
Ward, Russell C, Professor, MA, Morehead State University, 1989
Watson, Megan, Assistant Professor, Certified Cosmetology Instructor Salon Professional Academy, 2010
Weiss, Justin A, Assistant Professor, MS, Marshall University, 2009
Whitten, Brianna C, Assistant Professor, MA, Georgetown College, 2004
Williams, James T, Instructor, DVM, University of Tennessee, 1993
Wilson, Sharon G, Professor, MS, Auburn University, 1985
Wylie, Jeff B, Professor, MA, Morehead State University, 1977
Zemba, Patrick, Instructor, AAS, Columbus State Community College, 1991

Correctional Campuses

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

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

To cultivate lifelong learning opportunities through career degree programs, workforce and community development, and transfer-to-baccalaureate degree programs.

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

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

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

Academic Programs

Transfer Curricula
Associate in Arts
Associate in Science

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

Theatre (A)
Visual Art (A)

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

Advanced Nursing Assistant (C)
Agricultural Studies (D, A)
Air Conditioning Technology (C, D)
Automotive Technology (C, D, A)
Broadcast Television Production (C)
Business Communication (C)

Business Studies:
Administrative Office Technology (C, A)
Business Administration Systems (C, D, A)
Medical Information Technology (C, A)
Collision Repair Technology (C, D)
Computer Aided Drafting and Design (C, D)
Computer and Information Technologies (C, A)
Computerized Manufacturing and Machining (C, D, A)
Construction Technology (C, D)
Criminal Justice (C, A)
Diesel Technology (C, D, A)
Emergency Medical Services – Paramedic (C, A)
Emergency Medical Technician (C)
Engineering and Electronics Technology (C, D, A)
Engineering Related: Project Lead the Way (C)
Financial and Customer Service (C)
Fire/Rescue Science Technology (C, D, A)
General Occupational/Technical Studies (A)
Healthcare Facilities Leadership (A)
Horticulture (C, A)
Human Services (C, A)
Interdisciplinary Early Childhood Education (C, D, A)
Manufacturing Industrial Technology: Electrical Technology (C, D, A)
Manufacturing Industrial Technology: Industrial Maintenance Technology (C, D)
Mechatronics (C)
Medicaid Nurse Aide (C)
Nursing (A)
Pharmacy Technology (C)
Radiography (C, A)
Surgical Technology (C, A)
Technical Theatre (C)
Veterinary Technology (A)
Welding Technology (C, D)

Contact Information

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

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

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

General Information

Admissions  (270) 686-4527
Business Office  1-855-5GO-OCTC (1-855-546-6282)
Workforce Solutions  (270) 686-4444
Continuing Education  (270) 686-4449
Disability Services  (270) 686-4528
Financial Aid  1-855-5GO-OCTC (1-855-546-6282)
Human Resources  (270) 686-4442
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
Vice President of Business Affairs
Vice President of Information Technology
Vice President of Student Affairs
Vice President of Workforce Solutions
Associate Dean of Academic Affairs
Associate Dean of Business Affairs
Associate Dean of Nursing
Associate Dean of Advanced Manufacturing Technologies
Associate Dean of Humanities and Fine Arts
Associate Dean of Social Sciences, Business and Public Service
Associate Dean of Personal Services and Skill Trades
Associate Dean of Mathematics, Science, and Allied Health
Associate Dean of Student Affairs, Registrar
Associate Dean of Student Affairs, Cultural Diversity
Director of Marketing & Communications
Director of Public Safety
Director of Southeastern Campus

Faculty

Abell, Donna, Associate Professor, MS, Florida State University, 2004
Aldrich, Matthew, Instructor, MA, San Diego State University, 2008
Arnold, Julia, Instructor, MS, University of Evansville, 1997
Atary, Aubrey D., Professor, BS, Murray State University, 1984
Ash, Angela, Assistant Professor, MA, University of Louisville, 2005
Bailes, Steven R., Professor, BS, Eastern Kentucky University, 1977
Basham-Edge, Zara, Associate Professor, AAS, Owensboro Community and Technical College, 2013
Boorman, Keith, Associate Professor, Murray State University, 1999
Booker, Connie, Assistant Professor, MA, Western Kentucky University, 1997
Bowes, Cathy, Instructor, BSN, Western Kentucky University, 1997
Bowlds, Barry K., Associate Professor, AAS, Western Kentucky University, 2003
Boyd, Michael, Professor, MBA, Southwest Missouri State University, 1987
Boyd, Vicki H., Professor, MA, Murray State University, 1981
Branham, Matthew, Professor, MA, Morehead State University, 2000
Brown, Kathryn, Associate Professor, MA, Western Kentucky University, 1994
Brunner, Mary, Instructor, MA, Morehead State University, 2012
Canales, Michael, Instructor, BS, DeVry University, 1987
Caplan, Geralyn M., Professor, MS, University of Illinois, 1984
Clarke, Terrell, Instructor, PhD, Capella University, 2012
Collins, Shannon Quintette, Professor, MA, Morehead State University, 2000
Crowe, Randy Keith, Associate Professor, BS, Western Kentucky University, 1999
Curtis-Abuonik, Vickie L., Associate Professor, MS, Western Kentucky University, 1984
DePasquale, Donna, Instructor, MS, Western Kentucky University, 2013
Dick, Timothy T, Professor, PhD, University of Kentucky, 2002
Deibhar, Bethany, Assistant Professor, BSN, Murray State University, 2000
Edwards, Lois M, Associate Professor, MAE, Western Kentucky University, 2002
Ford, Constance R., Professor, DME, Indiana University, 1983
Norris, Tori, Associate Professor, MA, Texas A&M University, 2007
Gesser, Chad, Associate Professor, MA, Western Kentucky University, 1997
Gibson, M. B., Assistant Professor, MPA, Western Kentucky University, 2008
Gish, Misty, Associate Professor, MS, Murray State University, 2001
Glover, Robert J., Professor, MA, University of Nevada Las Vegas, 1985
Glen, James C, Professor, EdD, University of Kentucky, 2001
Gore, Michael G, Professor, BS, Western Kentucky University, 2009
Grimes, Laura D, Associate Professor, BS, Brescia College, 1978
Hall, Teresa, Assistant Professor, BSN, Western Kentucky University, 1997
Hamilton, Cassandra, Assistant Professor, MA, Western Kentucky University, 2003
Hammonds, Gary S, Associate Professor, AAT, Institute of Electronic Technology, 1986
Head Jr, Gerald M, Assistant Professor, MS, Western Kentucky University, 1995
Helm, Monty J, Assistant Professor, MFA, Southern Illinois University - Carbondale, 1988
Higdon, Frances, Assistant Professor, AAS, Owensboro Community and Technical College, 2011
Hildenbrandt, Daniel R, Associate Professor, MA, Southern Illinois University - Carbondale, 1982
Hoffman, Kathy, Assistant Professor, MS, Catholic University of America, 1986
Hollman, Stephen F, Professor, BS, Murray State University, 1999
Howard, Jacqueline, Instructor, BS, Murray State University, 2009
James, Walter, Assistant Professor, Nashville Auto-Diesel College, 1993
Johnson, Connie F, Assistant Professor, MBA, Morehead State University, 2006
Johnson, James L, Professor, MA, Western Kentucky University, 1987, M.A.
University of Kentucky, 1998
Kobella, Peter, Associate Professor, MA, Matej Bel University, 1998
Kono, Stacey A, Instructor, MS, Western Kentucky University, 2013
Lane, Terri H, Associate Professor, BSN, Western Kentucky University, 1996
Leach, Eddie, Instructor, DVM, Auburn University, 1984
Ledford, Julia C, Professor, PhD, Southern Illinois University - Carbondale, 1987
Lewis, Courtland, Instructor, PhD, University of Tennessee, 2012
Lutzel, John, Associate Professor/Librarian IV, MLS, University of Southern Mississippi, 2004
Mathy, Marc S, Professor, PhD, Ohio University, 1987
Martin, David C, Professor, MS, Western Kentucky University, 2007
McCrory, Lamo, Instructor, MPA, Western Kentucky University, 2012
McDonough, Greta J, Professor, MSW, Western Kentucky University, 1978
McFarland, Teresa, Associate Professor, MS, Western Kentucky University, 2004
McGee, Jennifer S, Associate Professor, BSN, Western Kentucky University, 1996
Meacham, Robert, Instructor, MEng, University of Louisville, 1988
Mensor, Nadine Joyce, Associate Professor, MS, Oakland City University, 2003
Miller, Clyde A, Instructor, 20 years teaching experience, 13 years occupational experience
Morris, Edward J, Professor, PhD, Southern Illinois University, 1989
Mosley, Daniel Joe, Professor, BS, Western Kentucky University, 2008
Mowers, Kathleen A, Professor, MAT, Indiana University, 1975
Mundell, Donald W, Associate Professor, MS, Eastern Illinois University, 1976
Nall, Keith Lewis, Assistant Professor, AS, Nashville Automotive Diesel College, 1986
Northenor, Tonya, Associate Professor, MFA, University of Memphis, 1999
Oblate, Anthony, Associate Professor, PhD, Southern Illinois University, 2001
Payne, Justin, Associate Professor, AAS, Owensboro Community and Technical College, 2005
Payne, Shawn, Associate Professor AAS, Owensboro Community and Technical College, 2007
Perkins, Micah W, Associate Professor, MS, University of Nebraska, 2001
Phillips, Janet S, Assistant Professor, AAS, Madisonville Community College, 1993
Purdy, Cheryl A, Assistant Professor BS, Kentucky Wesleyan College, 1976
Purdy, Robert, Associate Professor, MPS, Western Kentucky University, 1983
Revlett, Kimberly, Instructor, ADN, Kentucky Wesleyan College, 2000
Rice, Tammy M, Associate Professor, MA, Western Kentucky University, 1984
Roberts, Frank W, Associate Professor, University of Evansville, 1991
Runyon, Carl R, Associate Professor, MA, University of Evansville, 1973
Ruth, Deborah L, Associate Professor, MA, Western Kentucky University, 1993
Sallan, Vena, Professor, PhD, University of Delhi, 1981
Schmitt, Theresa M, Professor, MBA, University of Akron, 1992
Skaggs, Meredith, Assistant Professor, MA, Western Kentucky University, 2009
Sommer, Andy, Assistant Professor, BA, Oakland City University, 2006
Swanson, Susan, Associate Professor MA, Western Kentucky University, 2007
Taylor, Emmie K, Associate Professor, MSN, Southern Illinois University, 1997
Tudor, Michelle G, Associate Professor, AAS, Owensboro Community College, 2000
Wallace, Albert F, Professor, MBA, Xavier University, 1978
Ward, Lorene J, Associate Professor, MS, Western Kentucky University, 1972
Webel, William F, Professor, PhD, Southern Illinois University - Carbondale, 1987
Whitehouse, Crystal, Instructor, BS, Western Kentucky University, 2011
Williams, Chelsea, Assistant Professor, MS, Western Kentucky University, 2011
Wilson, Pamela S, Associate Professor, MA, Southern Illinois University - Edwardsville, 1995
Winkler, Paul R, Assistant Professor, MS, University of Kentucky, 1976
Wood, Gary A, Associate Professor, AAS, Owensboro Community and Technical College, 2003
Yazvac, Joseph, Professor, EdD, Auburn University, 2002

Scott Williams, PhD, Sarah Price, James Hartz, Kevin Beardmore, Cynthia Fiorella, Larry Miller, Stacy Edds-Ellis, PhD, Rhonda Logsdon, Terri Lanham, RN, MSN
Aubrey D. Autry, Julia Ledford, PhD, Marc Malthy, PhD, Mike Rodgers, Veena Sallan, PhD, Sandra A. Carden, Lewatis McNeal, Bernadette Tye Hale, Jeff Williams, Mike Rogers
Somerset Community College

Mission Statement/Status of Accreditation

The mission of Somerset Community College is to improve the employability and quality of life of area citizens as the primary provider of:

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

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

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

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

Academic Programs

Transfer Curricula
- Associate in Arts
- Associate in Science

Occupational/Technical Curricula

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

- Air Conditioning Technology (C, D)
- Automotive Technology (C, D)
- Aviation Maintenance Technology (C, D, A)
- Business Studies:
  - Business Administration Systems
  - Medical Information Technology (C, D, A)
- Certified Medical Technician (C)
- Collision Repair Technology (C, D)
- Computer and Information Technologies (C, A)
- Computerized Manufacturing and Machining (C, D)
- Construction Technology (C, D)
- Cosmetology (C, D)
- Criminal Justice (C, A)
- Culinary Arts (C, D, A)
- Diesel Technology (C, D)
- Education (A)
- Emergency Medical Services– Paramedic (C, A)
- Emergency Medical Technician (C)
- Engineering and Electronics Technology (C, A)
- Fire/Rescue Science Technology (C, D, A)
- General Occupational/Technical Studies (A)
- Interdisciplinary Early Childhood Education (C, D, A)
- Manufacturing Industrial Technology:
  - Electrical Technology (C, D)
  - Industrial Maintenance Technology (C, D, A)

Masonry (C)
Medical Assisting (C, D)
Medical Laboratory Technology (C, A)
Natural Gas Technology (C)
Nursing (A)
Paralegal Technology (C)
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)
  - Printing (C, D)
  - Welding Technology (C, D)

Contact Information

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

SCC Laurel Campus
100 University Dr.
London, KY 40741

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

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

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

SCC Casey Center
3609 North US 127
Liberty, KY 42539

General Information

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

President/CEO
Jo Marshall, PhD

Provost
Tony Honeycutt, EdD

Dean of Applied Technology
Roger Angevine

Dean of Student Affairs
Tracy Casada

Dean of Learning Support
Bruce Govor

Dean of Arts & Sciences
Sharon Whitehead

Dean of Health Sciences
Nancy Powell

Associate Dean of Distance Learning/Support
Linda Bourne

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

Associate Dean of Career & Technical
Dan Burnett

Associate Dean of Transitional Education
Kim Cleberg

Associate Dean of Mathematics & Natural Sciences
Clint Hayes, EdD

Associate Dean of Business & Professional Services
Lois McWhorter

Interim Associate Dean of Workforce Solutions
Alesa Johnson

Chief Operations Officer
Larry Abbott

Chief Business Affairs Officer
Cindy Clouse

Faculty

Allen, Melinda J, Assistant Professor, MA, Eastern Kentucky University, 1993

Allen, Valerie G, Professor, MSN, University of Texas at Arlington, 1989

Angevine, Roger L, Professor, MS, University of Illinois, 1969

Armstrong, Anthony L, Professor, MS, University of Texas at Arlington, 1984

Asher, Jason, Associate Professor, MA, Lindsey Wilson College, 2010

Atkinson-Bigelow, Johnna, Professor, MA, University of Kentucky, 1998

Bales, Brandon T, Assistant Professor, MS, South Dakota State University, 2007

Ballard, Linda K, Professor, MSN, Wright State University, 1984

Barbalace, Roberta, Assistant Professor, MS, Colorado State University, 1976

Barnes, Kelly J, Associate Professor, MS, Eastern Kentucky University, 2006

Barnes, Virgie F, Professor, MSN, California State University, Los Angeles, 1989

Beaty, Frances M, Associate Professor, AS, Eastern Kentucky University, 1986

Behrman, David M, Professor, MS, University of North Carolina-Chapel Hill, 1996

Bentley, Sheila, Instructor, MS, Eastern Kentucky University, 2009

Blevins, Jo Y, Professor, DNP, University of Kentucky, 2010

Bloomington, Michael S, Assistant Professor, MA, Eastern Kentucky University, 2005

Bradford, Kevin L, Professor, MBA Wayland Baptist University, 2000

Bradley, Daniel A, Associate Professor, MA, Morehead State University, 2007

Bridgman, Pamela S, Professor, MS, Capitol College, 1999

Brock, Brandy, Associate Professor, BS, Eastern Kentucky University, 2013

Brown, Eddie, Associate Professor, AAS, Somerset Community College, 2003

Broyles, Angela W, Assistant Professor, MS, Eastern Kentucky University, 1999

Burlew, Jonathan W, Professor, MS, Fort Hays State University, 1993

Burnett, Daniel C, Professor, MA, Union College, 2007

Burnett, Kippe Brown, Professor, MS, Eastern Kentucky University, 2000

Burton, Cindy, Associate Professor, BFA, American Intercontinental University, 2009

Byrd, Cynthia G, Instructor, MA, Eastern Kentucky University, 1986

Calcatera, Carol L, Assistant Professor, MBA, Eastern Kentucky University, 1999

Calder, Michael V, Associate Professor, AAS, Somerset Community College, 2000

Carothers, Franklin T, Professor, MBA, Murray State University, 1992

Cash, Curtis F, Professor, MA, Union College, 2007

Catron, Shanda L, Associate Professor, BS, University of Louisville, 2007

Chadbourn, Clevern, Associate Professor, AAS, Somerset Community College, 2007

Childress, Margaret L, Assistant Professor, MBA, Morehead State University, 2008

Cleberg, Kimberlie S, Associate Professor, MA, Eastern Kentucky University, 2001

Cleberg, Steven F, Professor, MFA, University of Portland, 1982

Colley, David A, Assistant Professor, BS, Eastern Kentucky University, 2012

Conaway, Vicki L, Professor, MSN, University of Kentucky, 1984

Copenhaver, Brandi-Wilson, Professor, MS, Eastern Kentucky University, 2001

Copenhaver, Jerry S, Professor, BS, Eastern Kentucky University, 2005

Cunningham, Gary, Associate Professor, Ed.D, Texas A&M University, 2006

Deaton, David A, Associate Professor, AAS, Somerset Community College, 2003

Deaton, Eric D, Assistant Professor, MS, Eastern Kentucky University, 1997

DeBord, Lenora Frances, Professor, MSN, Eastern Kentucky University, 2002

Decker, Doyle, Assistant Professor, MA, California State University, 2010

Deitz, Martha M, Associate Professor, MA Ed, LaGrange College, 1977

Dobbs, Billy W, Associate Professor, MS, University of Kentucky, 1994

Duvall, Billie, Associate Professor, MSN, Eastern Kentucky University, 2012

Eastham, Donna S, Professor, MA Ed, Western Kentucky University, 1994

Elam, Debra L, Assistant Professor, AAS, Somerset Community College, 2005

Farmer, Adam, Instructor, BS, Berea College, 2004

Fields, Samantha, Instructor, BS, Eastern Kentucky University, 2004

Flanary, Randall, Professor, BS, Eastern Kentucky University, 2011

Foster, Jamie L, Assistant Professor, MA, Eastern Kentucky University, 1990

Tracey Franklin, Instructor, BA, Midway University, 2014

Fries, Dennis, Assistant Professor, MS, Eastern Kentucky University, 2003

Fries, Wanda F, Professor, MFA, Bennington College, 1986

Gadd, Bellinda P, Associate Professor, MA, Eastern Kentucky University, 2002

Gadd, Susan G, Professor, MS, University of Kentucky, 1989

Gammage, Simeon D, Associate Professor, AAS, Somerset Community College, 2010

Gaskin, Tom P, Associate Professor, MA, Eastern Kentucky University, 2007

Goleman, Michael J, Assistant Professor, PhD, Mississippi State University, 2010

Graham, Gerald M, Associate Professor, AAS, Somerset Technical College, 2000

Grover, Alyse A, Professor, MA, Southwest Missouri State University, 1989

Gover, Glen B, Professor, MS, Eastern Kentucky University, 2003

Hammons, John S, Professor, DPT, Shenandoah University, 2006

Harris, James Ricky, Assistant Professor, AAS, Somerset Community College, 2007

Harris, Jeffrey D, Professor, MA, Eastern Kentucky University, 1998

Hayes, Clinton R, Instructor, Ed.D, University of the Cumberlands, 2011

Hewitt, John, Assistant Professor, BSN, Bellarmine University, 1996

Hickman, Shannon M, Assistant Professor, BA, Lincoln Memorial University, 2008

Hoskins, Jess, Associate Professor, BA, Eastern Kentucky University, 1975

House, Debra J, Professor, MS, University of Kentucky, 1994

Hove, Julie M, Assistant Professor, MLS, University of Kentucky, 2010

Hullaker, Lorra S, Professor, MS, Eastern Kentucky University, 2003

Huntman, Mary Taylor, Professor/Librarian, MA/MLS, University of Kentucky, 1994

Isham, Mark, Assistant Professor, MS, Eastern Kentucky University, 1992

Jacques, Kenneth R, Professor, MBA, Ball State University, 1987

Johnson, Kelly, Assistant Professor, MA, Eastern Kentucky University, 2003

Jones, Rebecca, Instructor, AAS, Somerset Community College, 2011

Karim, Md Jahurul, Associate Professor, DVM, Bangladesh Agricultural University, 1977

Kilgore, April L, Professor, Ph.D, University of Kentucky, 1994

Kolrman, Elaine E, Associate Professor, MS, University of Cincinnati, 1990

Krause, Richard, Professor, MA, University of Kansas, 1969

Land, Kimberly, Instructor, AAS, Temple College, 1999

Larson, Irene J, Assistant Professor, MA, National University, 2010

Lawson, Shelley R, Assistant Professor, BS, Union College, 2009

Lester, Danny L, Associate Professor, AAS, Somerset Technical College, 2002

Lewis, Kathy S, Professor, MS, Eastern Kentucky University, 1994

Libby, Darlene H, Associate Professor, MFA, University of Tennessee, 1994

Logan, Donna J, Professor, MA, Eastern Kentucky University, 1997

Mac, Ronald W, Assistant Professor, MA, Morehead State University, 1984

Martin, Ruth S, Professor, MSN, Eastern Kentucky University, 1999

Martinez, George M, Associate Professor, MS, Murray State University, 1991

Matika, Richard S, Associate Professor, Ed.D, University of Kentucky, 2012

McClendon, Steven S, Assistant Professor Instructor, Ed.D, University of the Cumberlands, 2012

McFadden, Jeffrey W, Assistant Professor, MA, Eastern Kentucky University, 1999

McFeters, James I, Associate Professor, MS, Louisiana State University, 1991

McQueen, Travis, Professor, MS, Eastern Kentucky University, 2001

McWhorter, Lois A, Professor, MA, Eastern Kentucky University, 1988

Meade, Ronald L, Professor, DPT, Shenandoah University, 2006

Metcalf, Virginia E, Associate Professor, MS, Eastern Kentucky University, 2002

Mills, Angela N, Assistant Professor, BS, Northern Kentucky University, 2015

Moran, Phillip D, Assistant Professor, AAT, Somerset Technical College, 2002

Morris, Amanda K, Assistant Professor, MA, University of Kentucky, 2009

Muse, Dana, Professor, MS, University of Kentucky, 1998

Nazario, Eduardo, Assistant Professor, AS, Sullivan University, 2005

Null, George Curtis, Assistant Professor, AA, Trinity Valley Community College, 1967

Oakes, Chelsea, Instructor, MSN, Eastern Kentucky University, 2014

Osborne, Roger, Associate Professor, MA, University of Louisville, 2002
Owens, Jennifer, Associate Professor, AAS, Somerset Community College, 2008
Owens, Nancy G, Professor, DNP, Bellarmine University, 2012
Perkins, Jeffrey H, Professor, MA, Eastern Kentucky University, 1993
Peterson, Betty W, Professor, MA, University of Kentucky, 1986
Phelps, David A, Associate Professor, AAS, Somerset Technical College, 2000
Phelps, Devin, Assistant Professor, MSLS, University of Kentucky, 2011
Perkins, Jeffrey H, Professor, PhD, University of Kentucky, 2011
Pierce, Christopher A, Associate Professor, BS, University of Kentucky, 2003
Powell, Nancy L, Professor, M.A.Ed., Eastern Kentucky University, 1987
Prather, Claudette, Assistant Professor, BA, Eastern Kentucky University, 1993
Price, Carol A, Associate Professor, BSN, Eastern Kentucky University, 1995
Ramilo, Cecilia A, Associate Professor, PhD, Washington State University, 1996
Randall, Marci S, Associate Professor, MS, Eastern Kentucky University, 2011
Radliff, Donna R, Professor, M.A. Ed, Eastern Kentucky University, 1999
Roberts, Laura E, Associate Professor, BSN, Eastern Kentucky University, 1991
Routt, Patricia L, Assistant Professor, BSN, Eastern Kentucky University, 2013
Scary, Michael A, Assistant Professor, PhD, University of Iowa 2004
Shearer, Elizabeth, Professor, MA, Western Kentucky University, 1988
Shelton, Billie J, Associate Professor, MSN, Western Kentucky University, 2008
Sherman, Gary J, Professor, MS, University of Wyoming, 1979
Sherman, Loris E, Professor, MS, University of Wyoming, 1985
Simpson, William Stuart, Professor, MS, Eastern Kentucky University, 2004
Smith, Jimmy R, Associate Professor, AAS, Eastern Kentucky University, 1999
Spears, April J, Assistant Professor, MS, Eastern Kentucky University, 2008
Spencer, Robert T, Professor, MA, Eastern Kentucky University, 1993
Spring, Deanna D, Instructor, MS, University of Wisconsin, 1968
Starnes, John H, Assistant Professor, Ph.D., University of Kentucky, 2013
Stephens, Erin, Assistant Professor, MA, Eastern Kentucky University, 2007
Story, Joanne, Professor, MA, Eastern Kentucky University, 1969
Stringer, Gail S, Professor, MS, Eastern Kentucky University, 1989
Swanner, Regina K, Professor, BS, Eastern Kentucky University, 2007
Taylor, Gary B, Assistant Professor, AAS, Somerset Technical College, 2000
Taylor, Guy L, Instructor, BS, University of Kentucky, 1981
Taylor, James H, Assistant Professor, MA, Eastern Kentucky University, 2002
Thomas, Janice E, Assistant Professor, MSN, Eastern Kentucky University, 2008
Tincher, James E, Assistant Professor, AAS, Somerset Technical College, 2000
Toby, Kimberly L, Assistant Professor, MS, University of Kentucky, 1998
Tomlinson, James R, Professor, MS, Eastern Kentucky University, 1995
Tomlinson, Nick, Professor, MS, Eastern Kentucky University, 2006
Upchurch, Joni M, Associate Professor, AAS, Somerset Community College, 2008
Vito, Gloria L, Associate Professor, MSN, Eastern Kentucky University, 2006
Walker, Anita E, Professor, MS, University of Tennessee, 1971
Ware, Lisa N, Assistant Professor, MA, Eastern Kentucky University, 2010
Waterstrat, Amanda J, Associate Professor, PhD, University of Kentucky, 2009
Watson, Karl D, Associate Professor, BS, Eastern Kentucky University, 2002
Watters, Tammy R, Associate Professor, AAS, Somerset Community College, 2000
Webb, Karen Calvert, Professor, BS, Eastern Kentucky University, 1998
Wells, Michael, Assistant Professor, BS, Indiana Wesleyan University, 2013
Wheet, Dee, Instructor, ASN, Eastern Kentucky University, 1993
Wilson, Jennifer K, Professor, MSN, Eastern Kentucky University, 2000
Wooldridge, Eric N, Associate Professor, BS, University of Kentucky, 2001
Xia, Zhiming, Associate Professor, MS, University of Mississippi, 1999
Mission Statement/Status of Accreditation

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

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

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

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

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

Academic Programs

Transfer Curricula
- Associate in Arts
- Associate in Science

Occupational/Technical Curricula

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

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

Contact Information

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

Off Site Locations

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

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

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

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

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

General Information

Admissions
(270) 901-1094

Adult Education & Literacy
(270) 901-1013

Business Office
1-855 246-2482

Workforce Solutions
(270) 901-1033

Assessment & Testing
(270) 901-1202

Disability Services
(270) 901-1202

Financial Aid
1-855-246-2482

Human Resources
(270) 901-1115

Institutional Advancement
(270) 901-1116

Library
(270) 901-1155

Public Relations
(270) 901-1117

Denna White
Vacant
Chris Cumens
Dr. James McCaslin
Elaine Yates
Pam Bulle
Jennifer Wells
Sherri Forester
Heather Rogers
Janice Gabbard
Mark Brooks
Southeast Kentucky Community and Technical College

Mission Statement/Status of Accreditation

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

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

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

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

Academic Programs

Transfer Curricula

- Associate in Arts
- Associate in Science

Occupational/Technical Curricula

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

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

Academics: Elijah Buell (606) 589-3040
Admissions: Veria Baldwin (606) 589-3018
Business Affairs: Angela Simpson 1-855-2GO-SKCTC (1-855-246-7528)
Workforce Solutions: Vic Adams (606) 248-0416
Disability Services: Veria Baldwin (606) 589-3018
Financial Aid: Barbara Gent 1-855-2GO-SKCTC (1-855-246-7528)
Human Resources: Billie Franks (606) 589-3029
Library: Warren Gray (606) 589-3070
Public Relations: Chris Jones (606) 589-3003
Registration/Records: Anita Barnhill (606) 248-0137
Transfer Information Liaison: Georgina Billings (606) 248-0853
Veterans Affairs: Rebecca Parrott (606) 248-0145
Website: southeast.kctcs.edu

Academics: Dr. Wheeler Conover
Admissions: Veria Baldwin
Business Affairs: Angela Simpson 1-855-2GO-SKCTC (1-855-246-7528)
Workforce Solutions: Vic Adams (606) 248-0416
Disability Services: Veria Baldwin (606) 589-3018
Financial Aid: Barbara Gent 1-855-2GO-SKCTC (1-855-246-7528)
Human Resources: Billie Franks (606) 589-3029
Library: Warren Gray (606) 589-3070
Public Relations: Chris Jones (606) 589-3003
Registration/Records: Anita Barnhill (606) 248-0137
Transfer Information Liaison: Georgina Billings (606) 248-0853
Veterans Affairs: Rebecca Parrott (606) 248-0145
Website: southeast.kctcs.edu

Administration

President
Dr. F. Lynn Moore

Chief Academic Affairs Officer
Élijah Buell

Chief Business Affairs Officer
Angela Simpson

Chief Student Affairs Officer
Dr. Rebecca Parrott

Chief Institutional Advancement Officer/Operations
Dr. Scott Sherman

Chief Learning Officer
Rick Mason

Chief Community/Workforce Econ. Dev.
Dr. Vic Adams

Chief Information Tech Officer
Merrill Galloway

Chief Cultural Diversity Officer
Carolyn Sundy

Director of Human Resources
Billie Franks

Director of Public Relations
Chris Jones

Division of Allied Health and Related Technologies
Michael S. Good

Division of Arts & Humanities
Ann Maciula

Division of Industrial Technology
Ronnie Daniels

Division of Natural Sciences and Mathematics
Rhonda L. Creech

Division of Nursing and Related Technologies
H. Kathy Guy

Division of Social & Behavioral Sciences
Kevin Lambert

Collier, William G, Professor, MA, Eastern Kentucky University, 1992
Conklin, Peggy, Professor, MA, Morehead State University, 1985
Conover, Edwin Wheeler, Professor, PhD, Cincinnati, 1996
Corrington, Michael S, Professor, MA, Stephen Austin State University, 1967
Cox, Donna, Associate Professor, MA, Union College, 1973
Cox, Lynn, Librarian I, MS, University of Kentucky, 1994
Creech, Rhonda, Associate Professor, MA, Morehead State University, 2003
Creech, Rhonda L, Professor, MA, Morehead State University, 1996
Daniels, Ronnie W, Professor, BS, Eastern Kentucky University, 2000
Dingus, Ariel, Assistant Professor, MA, Middle Tennessee State University, 2012
Dixon, Jill Suzanne, Associate Professor, DPT, University of Kentucky, 2011
Drum, Matthew, Instructor, Ph.D., University of Louisville, 2010
Dyer, Bradley, Professor, M.S., Eastern Tennessee State University, 1999
Eldahan, Ismael A, Associate Professor, MS, American Sentinel University, 2008
Epling, Michael, Professor, MBA, Morehead State University, 1995
Fields, Brian, Instructor, M.S., Everest University, 2010
Fleming, April, Assistant Professor, BSN, Morehead State University, 2013
Forbes, Zelma, Professor, MS, Ohio University, 1983
Forson-Scopa, Elana, Assistant Professor, MA, Eastern Kentucky University, 2003
Forson, Jason, Assistant Professor, M.S., University of Missouri, Kansas City, 2010
Gipe, Robert H, Professor, MA, University of Massachusetts, 1988
Good, Michael S, Professor, MS, Eastern Kentucky University, 2001
Gordon, Sheila, Professor, MLS/MSW, University of Kentucky, 2014/1995
Greene, Steven T, Associate Professor, AS, Southeast Kentucky Community and Technical College, 2008
Greer-Pitt, Sue, Professor, PhD, University of Kentucky, 1984
Guyan, Hazel K, Professor, MS, Bellarmine University, 1989
Halcomb Jr, Astor, Professor, BUS, Morehead State University, 1992
Harper, Jane C, Associate Professor, MS, Western Kentucky University, 2014
Helton, Melissa, Assistant Professor, MFA, Bowling Green State University, 2006
Hensley, Evelyn M., Librarian II, MS University of Kentucky, 2006
Herren, Douglas, Associate Professor, AAS, Southeast Kentucky Community and Technical College, 2006
Hollbrook, Sandy, Professor, M.Ed, Western Kentucky University, 2011
Hugh, Margie G, Professor, MS, Eastern Kentucky University, 2008
Hughes, Carlton W, Professor, MA, Marshall University, 1987
Hughes, Eva, Assistant Professor, MS, Indiana Wesleyan University, 2013
Hutson, Joseph P, Associate Professor, MS, Eastern Kentucky University, 2004
Jackson, Terri, Assistant Professor, MS, Western Kentucky University, 2014
Johnson, Joseph, Instructor, PhD, Clemson University, 2010
Johnson, Lori, Associate Professor, RRT, BS, Eastern Kentucky University, 2014
Jones, Jamie, Instructor, MA, East Tennessee State University, 2006
Jones, Lynn Y, Professor, MA, Eastern Kentucky University, 1983
Kidwell, David T, Professor, PhD, University of Kentucky, 1993
Lambert, Kevin, Associate Professor, MS, University of Tennessee, 1994
Lawson, Rebecca L., Associate Professor, CST, BA, Ashford University 2007
Layne, Kenneth, Instructor, BS, Eastern Kentucky University, 1988
Maciula, Terry A, Professor, MA, Oklahoma State University, 1991
Marcum, Joseph S, Professor, University of Tennessee, 1980
Mayes, Caroline, Assistant Professor, MA, National University, 2007
McDaniel, James H, Associate Professor, PhD, Southern Illinois University at Carbondale, 1981
McDonnell, Raymond E., Associate Professor, PhD, University of Kentucky, 1997
Miles, Nancy, Associate Professor, Certificate, Mountain Empire Community College, 1976
Miller, Rebecca D, Professor, MA, Union College, 1998
Murphy, Kevin, Librarian I, MLS, University of Kentucky, 1995
Newman, Kathy, Associate Professor, M.Ed, Lindsey Wilson College, 2004
Noe, Roger, Professor, Ed.D, University of Kentucky, 1990
Omar, Saeb, Associate Professor, PhD, Mississippi State University, 1987
Pennington, Joy, Assistant Professor, MS, Chamberlain College of Nursing, 2013
Powell, Susan, Associate Professor, MA, University of Louisville, 2011
Ray, Johnny E, Associate Professor, BS, Eastern Kentucky University, 2000
Saylor, Ellen W, Professor, MS, Bellarmine University, 1987
Schertz, Ann E, Professor, MA, Indiana University, 1986
Scopa Jr, Joseph A, Professor, MFA, Pennsylvania State University, 1976
Shoope, Tina, Assistant Professor, MSN, Chamberlain College of Nursing, 2013
Shumate, Denise R, M., M., Rank 1+, Lincoln Memorial University, 1989
Silver, Roy, Professor, PhD, University of Toledo, 1982
Simpson, Amelia, Professor, MFA, Spaulding University, 2013
Simpson, Astor, Professor, MAEd, Union College, 1982
Singh, Rajiv, Assistant Professor, MS, University of North Dakota, 2012
Smith, Marshall, Assistant Professor, AAS, Southeast Kentucky Community and Technical College, 2011
Steenbergen, Gary L, Professor, MS, Eastern Kentucky University, 1996
Stewart, Jenny, Assistant Professor, BS, University of Kentucky, 1982
Sundy, Carolyn M, Professor, MSEd, University of Kentucky, 1985
Turner, Mary Leann, Associate Professor, BS from EKU, 1994
Vaught, Jamie, Professor, MBA, University of Kentucky, 1981
Walker, Robert, Instructor, 22 years Occupational Experience
Webb, Danny, Associate Professor, MA, Eastern Kentucky University, 1994
Webb, Scelinda, Associate Professor, MAEd, Morehead State University, 1981
Whited, Paula, Assistant Professor, MSN, University of Louisville, 2007
Wilson, Odell D, Professor, EdD, East Tennessee State University, 1987
Wright, Wendy, Associate Professor, MS, Eastern Kentucky University, 2015
Mission Statement/Status of Accreditation
The mission of West Kentucky Community and Technical College is to provide excellence in teaching and learning, promote student success, and support economic development.

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

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

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

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

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

Academic Programs

Transfer Curricula
Associate in Arts
Associate in Science

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

Visual Art (A)

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

Advanced Nursing Assistant (C)
Air Conditioning Technology (C, D)
Applied Engineering Technology (C, A)
Apprenticeship Studies (A)
Automotive Technology (C, D, A)
Business Studies:
  - Administrative Office Technology (C)
  - Business Administration Systems (C, D, A)
  - Medical Information Technology (C, D, A)
  - Collision Repair Technology (C, D)
  - Computer Aided Drafting and Design (C, D)
  - Computer and Information Technologies (C, A)
  - Computerized Manufacturing and Machining (C, D, A)
  - Construction Technology (C, D)
  - Cosmetology (C, D)
  - Criminal Justice (C, A)
  - Culinary Arts (C, D, A)
  - Dental Assisting / Dental Hygiene (D)
  - Diesel Technology (C, D)
  - Diagnostic Medical Sonography (C, A)
  - Emergency Medical Services – Paramedic (C, A)
  - Emergency Medical Technician (C)
  - Fire/Rescue Science Technology (C, D, A)
  - General Occupational/Technical Studies (A)
  - Health Physics (C)
  - Health Science Technology (A)
  - Historic Preservation Technology (C)
  - Homeland Security/Emergency Management (C, A)
  - Industrial Chemical Technology (A)
  - Interdisciplinary Early Childhood Education (C, A)
  - Logistics and Operations Management (C, A)
  - Manufacturing Industrial Technology:
    - Electrical Technology (C, D, A)
    - Industrial Maintenance Technology (C, D, A)
  - Marine Technology (C, A)
  - Mechatronics (C)
  - Medical Laboratory Technology (C, A)
  - Natural Gas Technology (C)
  - Nursing (A)
  - Pharmacy Technology (C)
  - Physical Therapist Assistant (A)
  - Practical Nursing (C, D)
  - Radiography (C, A)
  - Surgical Technology (A)
  - Visual Communication:
    - Design & Technology (C)
    - Multimedia (C, D, A)
    - Printing (C)
    - Welding Technology (C, D)
  - Workplace Safety Specialist (C)
Contact Information
West Kentucky Community and Technical College
4810 Alben Barkley Drive
Paducah, KY 42001
(270) 554-9200
westkentucky.kctcs.edu

General Information
Accessible College Education (270) 534-3236
Admissions/Records 1-855-GO-WKCTC (1-855-469-5282)
Advising Center 1-855-GO-WKCTC (1-855-469-5282)
Adult Learning Center (Adult Education/GED program)
  McCracken County (270) 534-3451
  Graves County (270) 856-2422
Assessment Center 1-855-GO-WKCTC (1-855-469-5282)
  COMPASS Testing
Bookstore (Anderson Technical Building) (270) 534-3247
Business Office 1-855-GO-WKCTC (1-855-469-5282)
Challenger Learning Center (270) 534-3101
Clemens Fine Arts Center Box Office (270) 534-3212
Community Education (270) 534-3335
Commonwealth Middle College (270) 534-3350
COMPASS Assessment Center 1-855-GO-WKCTC (1-855-469-5282)
  Student Services
  Disability Services (270) 534-3406
  Financial Aid 1-855-GO-WKCTC (1-855-469-5282)
GED/Adult Learning Center
  McCracken County (270) 534-3451
  Graves County (270) 856-2422
General Information (270) 554-9200
  Human Resources (270) 534-3078
  Library (270) 534-3197
Murray Practical Nursing Program (270) 753-1231
Nursing (270) 534-3466
Paducah School of Art & Design (270) 408-4278
  Public Relations (270) 534-3083
  Purchase Training Center (Mayfield) (270) 247-9633
  Security (270) 564-8403
Skilled Craft Training Center (Mayfield) (270) 856-2400
  Weaks Center (Nursing program, Murray) (270) 753-1231
Workforce Solutions Assessments (270) 534-3490
  Transfer Advising Center 1-855-GO-WKCTC (1-855-469-5282)
TRIO - Student Support Services (270) 534-3180
  Thompson Health Education Center (270) 444-4794
University of Kentucky College of Engineering (270) 534-3129
Veterans Affairs (270) 534-3485
Website westkentucky.kctcs.edu

Administration

President/CEO Dr. Barbara Veazey
Vice President of Academic Affairs Dr. Tena Anderson
Vice President of Learning Initiatives Sherry Anderson
Vice President of Workforce & Economic Development Jim Pape
Vice President of Student Development Dr. Belinda Dalton-Russell
Vice President of Business Affairs Susan Graves
Vice President of Administrative Services John Carrico
Vice President of Institutional Development Dr. Steven Freeman
Director of Human Resources Ashley Wright
Director of Marketing and Public Relations Bridget Caner
Director of the Clemens Fine Arts Center Janett Blythe
Director of Adult Education Gail Robinson Butler
Associate Vice President of Academic Affairs Samantha Williams

Associate Vice President of Learning Initiatives Dr. Renea Akin
Dean of Online Learning Connie Heflin
Dean of Allied Health and Personal Services Division Peggy Block
Dean of Applied Technologies Division Stephanie Milliken
Dean of Business and Computer Related Technologies Division Tammy Potter
Dean of Humanities, Fine Arts and Social Sciences Division Sharla Hutchinson
Dean of Nursing Division Shari Gholson
Dean of Paducah School of Art and Design Division Paul Aho
Dean of Transition Education Division Maria Flynn
Dean of Science and Mathematics Division Dr. Karen Hlina

Faculty
Adkins, Rhonda J, Professor, MA, Murray State University, 1985
Aho, Paul R, Assistant Professor, MFA, University of South Florida, 1979
Akin, Selena R, Professor, EdD, Vanderbilt University, 2010
Akojie, Felix O, Professor, PhD, University of IFE, Nigeria, 1985
Arnold, Jimmy Dale, Associate Professor, BS, Murray State University, 1998
Arnone, Samuel J, Instructor, BS, Southern Illinois University, 1998
Barnhill, Sherry D, Professor, MAE, Murray State University, 1975
Beardsley, Christopher C, Assistant Professor, BS, Murray State University, 1993
Bigham, Larry D, Professor, MS, Southern Illinois University at Carbondale, 1985
Blaine, Patricia A, Professor, MA, Fort Hays State University, 1981
Block, Peggy R, Professor, MHS, University of Indianapolis, 1996
Brackin, Kyra E, Instructor, MSN, University of Kentucky, 1996
Bradshaw, Kenneth A, Professor/Librarian I, MLS, University of Kentucky, 1981
Brown, Rebecca H, Assistant Professor, PhD, Virginia Tech, 2009
Buchanan, Patricia, Associate Professor, BS, Murray State University, 2008
Cahill, Charles S, Instructor, MS, California Polytechnic State University, 2009
Calderwood, Paul H, Assistant Professor, MS, Murray State University, 2009
Carrico, Mary C, Professor, MS, Southern Illinois University at Carbondale, 1991
Cates, Joel D, Assistant Professor, MS, Murray State University, 2011
Chastain, Brenda L, Assistant Professor, PhD, University of Arkansas, 2010
Collharp, Heather L, Associate Professor, MSE, University of Kentucky, 1999
Cooper, Donald K, Associate Professor, AS, Murray State University, 1997
Day, Jamie A, Assistant Professor, AAS, Paducah Community College, 1997
Dickerson, Craig T, Associate Professor, AAS, West Kentucky Community and Technical College, 2008
Donner, Jason W, Assistant Professor, MA, Murray State University, 1995
Dotson, Megan E, Assistant Professor, MAE, Murray State University, 2010
Drachen, Carla K, Professor, MBA, Murray State University, 1987
Driver, Tommy E, Associate Professor, AAS, West Kentucky Community and Technical College, 2006
Durbin, Laura R, Associate Professor, MSN, Indiana Wesleyan University, 2013
Durham, Elizabeth A, Instructor, MA, Nazareth College, 1988
Ewing, Cheryl L, Assistant Professor, MSN, American Sentinel University, 2013
Fletcher, Patrick A, Assistant Professor, BBA, University of Kentucky, 2001
Flyn, Maria K, Professor, MA, Murray State University, 1985
Frank, Constance W, Professor, MA, Murray State University, 1991
Franklin, David M, Associate Professor, MS, Murray State University, 1976
Gar, Joseph Doo, Professor, EdD, Murray State University, 2010
Garrett, Thomas C, Scott, Professor, PhD, Southern Illinois University, 1990
Gerike, Kevin L, Professor, PhD, Virginia Polytechnic Institute, 1993
Gholson, Shari D, Professor, MSN, Vanderbilt University, 1997
Goodaker, Gary W, Professor, MS, University of Illinois at Urbana Champaign, 1997
Graham, Misty D, Assistant Professor, BSN, Murray State University, 2012
Gunn, Robert G, Assistant Professor, BA, University of Alaska Fairbanks, 1981
Harper, Gary W, Assistant Professor, MSN, Chamberlain College of Nursing, 2011
Harper, Shawn, Associate Professor, MS, Murray State University, 1990
Hasegawa, John S, Associate Professor, MFA, University of Oregon, 2000
Hearn, Steven B, Instructor, AAS, West Kentucky Community and Technical College, 2012
Heflin, Connie S, Professor, MSN, University of Evansville, 1983
Heflin, David J, Associate Professor, MS, Murray State University, 2010
Hely, Suzann Wade, Professor, MBA, Murray State University, 1983
Henderson, Tyra F, Assistant Professor, MA, Murray State University, 2001
Henry, Greta G, Instructor, MS, Murray State University, 2004
Hlinka, Karen F, Professor, EdD, University of Kentucky, 2012
Hobbs, Darren J, Instructor, AS, Western Kentucky University, 2013
Holland, Virgil T, Associate Professor, AS, Murray State University, 2012
Holler, Patricia A, Associate Professor, MA, Murray State University, 1990
Holt, Stephen W, Assistant Professor, BS, Murray State University, 2006
Hopper, Carrie, Assistant Professor, MS, Murray State University, 2008
Housholder, Paul D, Associate Professor, AS, Murray State University, 2001
Hutchinson, Sharla E, Professor, MA, Western Kentucky University, 1980
Isenberg, Paula R, Assistant Professor, MSN, University of Southern Indiana, 2010
Johnson, Jonathan B, Instructor, MS, Bellevue University, 2012
Johnson, Karen H, Instructor, EdD, Trevecca Nazarene University, 2012
Johnson, Margaret F, Assistant Professor, MSN, University of Phoenix, May 2011
Jones, Latoya A, Assistant Professor, DC, Life University, 2001
Jordan, Tracy L, Associate Professor, MA, Murray State University, 1986
Knapp, Jo A, Professor, MA, Murray State University, 1990
Knoth, Marilyn B, Professor, MSN, University of Evansville, 1984
Kocher, Vicki, Professor, MS, Murray State University, 1991
Lee, Bobby A, Professor, MS, Murray State University, 1995
Liao, BiLan, Associate Professor, MFA, Kendall College of Art and Design, 2008
Liu, Sarah S, Associate Professor, PhD, Old Dominion University, 2006
Mahoney, Joseph D, Professor, MA, Murray State University, 1990
Martin, Patricia A, Associate Professor, MSN, Murray State University, 2000
Mayo, Teresa, Professor, EdD, University of Kentucky, 2012
McDanel, Tracy L, Associate Professor, BS, Murray State University, 2009
McGullion, Allison S, Associate Professor, MS, University of Colorado at Denver, 1998
McMullen, DeAnn J, Professor, MEEd, Memphis State University, 1989
Miller, Jennifer D, Professor, MS, Murray State University, 2009
Miller, Rhanda G, Assistant Professor, BSN, Murray State University, 1988
Milliken, Stephanie K, Professor, MS, Murray State University, 1996
Monroe, Frances J, Professor, MACT, Murray State University, 1977
Moore, John C, Associate Professor, MS, Murray State University, 2007
Morgan, Tiffinece S, Professor, MA, Murray State University, 1998
Mullins, Benjamin D, Associate Professor, BS, Murray State University, 2000
Newborn, Bradley C, Instructor, AAS, West Kentucky Community and Technical College, 2013
Nickell, David L, Professor, MA, Western Kentucky University, 1982
Norwood-McGregor, Vanessa A, Associate Professor, MSN, Frontier Nursing University, 2013
Owen, Tammy R, Associate Professor, EdD, University of Phoenix, 2008
Page, Leslie R, Instructor, MS, Murray State University, 2003
Payne, Tena B, Professor, EdD, Murray State University, 2001
Perry, Carolyn K, Associate Professor, MBA, Thunderbird School of Global Management, 1980
Peterson, Miranda D, Assistant Professor, MSN, University of Southern Indiana, 2008
Petitt, Christy L, Associate Professor, MSN, University of Southern Indiana, 2007
Potter, Tammy F, Professor, MAEd, Murray State University, 1993
Pruitt, Douglas L, Professor, PhD, Bowling Green State University, 2000
Quinby, Beverly F, Professor, BS, Mid-Continent University, 2007
Ragsdale, Tina L, Instructor, MS, Southern Illinois University at Carbondale, 2008
Reese, Gary L, Associate Professor, MPA, Murray State University, 1987
Reid, Kristin M, Instructor, MSN, Murray State University, 2008
Robertson, Alice R, Professor, BS, Murray State University, 1996
Roof, Sally, Professor, MS, Murray State University, 2002
Russell, Kimberly G, Associate Professor, MA, Southeast Missouri State University, 2000
Scott, Andrew J, Instructor, MBA, Quincy University, 2008
Senn, Catherine E, Professor, MS, Johns Hopkins University, 1995
Shurley, Britton M, Assistant Professor, MFA, Indiana University, 2007
Simmons, Randall R, Associate Professor, MFA, University of Cincinnati, 1995
Smith, Deborah S, Professor, MS, Murray State University, 2008
Spellbring, Legatha F, Associate Professor, MA, Indiana State University, 2002
Stephenson, Lisa G, Professor, EdD, University of Kentucky, 2012
Stewart, Michael E, Professor, MS, Murray State University, 1977
Stoffel, Claudia A, Professor, MSN, Bellarmine College, 1992
Swain, Deborah J, Professor, BS, Murray State University, 2008
Tavares, Victor M, Assistant Professor, PhD, Pennsylvania State University, 2009
Taylor, Brent E, Instructor, MA, Murray State University, 2002
Taylor, Jason D, Professor, MS, Murray State University, 2000
Taylor, Susan D, Professor, MSN, University of Evansville, 1988
Teague, Sani E, Assistant Professor, MA, Murray State University, 2009
Thomason, Wanda K, Associate Professor, MS, Murray State University, 2004
Thompson, Julie E, Associate Professor, MAT, Murray State University, 1999
Thompson, Valerie V, Associate Professor, MS, Murray State University, 2007
Toon, Nichole M, Associate Professor, BS, Murray State University, 2009
Valleroy, Deborah L, Instructor, MSN, University of Southern Indiana, 2014
Vos, John D, Professor, MBA, Murray State University, 1989
Wadlington, Corey M, Associate Professor, MAE, Austin Peay State University, 1999
Wallace, Stanley C, Instructor, AA, University of Phoenix, 1996
Washam, Freddie G, Associate Professor, AAS, West Kentucky Technical College, 2003
Watkins, Gerald L, Professor, MBA, Murray State University, 1984
Watkins, Kelly J, Instructor, BSN, Western Kentucky University, 1984
Westerfield, Mark A, Assistant Professor, AAS, West Kentucky Community and Technical College, 2005
Witherspoon, Reta F, Assistant Professor, AAS, West Kentucky Community and Technical College, 2005
Wright, Kelly R, Professor, MS, Murray State University, 1984
Wurgler, Norman F, Professor, MM, University of Cincinnati, 1985
Youngblood, Norita A, Professor, MS, Murray State University, 2004
Applying for Admission

A student enrolling at a KCTCS college for the first time must submit an application for admission. Students who are re-entering a KCTCS college after being out for one or more semesters should 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 (GED), who are eligible to pursue a GED, or who are dually enrolled in high school and the college.

Admission and Registration Procedures

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

Non-Degree/Non-Credential Students

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

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

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

High School Students

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

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

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

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

Second Chance Students

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

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

Transient/Visiting Students

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

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

Readmission after Two or More Years: Academic Bankruptcy

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

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

Previous College Work

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

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

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

Change of Program

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

KCTCS Assessment and Placement Policy

Students enrolling in a college credit class applicable toward an educational credential must demonstrate through the submission of scores on specified assessment instruments that they possess the minimum academic skills essential for success in the class required for the credential. Students who do not demonstrate these academic skills for their academic plan must remedy the identified skill deficiencies by enrollment in transitional education courses, entry-level courses with approved supplementary academic support, or approved college readiness intervention(s) within the first two terms of enrollment per Council on Postsecondary Education regulation 13 KAR 2:020. Enrollment shall continue consecutively until the designated academic skill levels are attained.

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

This assessment and placement policy specifically applies to all credential-seeking students, students who transition from non-credential seeking to credential seeking, and students who are undecided about their choice of program as of Fall 2014. The skills for which the Assessment and Placement Policy applies are mathematics, reading, and writing. An ACT® score of at least a 19 in mathematics, 20 in reading or 18 in writing allows the student to enroll in entry-level courses for those areas. A student who scores less than 19 in mathematics, less than a 20 in reading or less than an 18 in writing is required to take an additional test and will be placed into classes according to her/his score on the second test.

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

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

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

<table>
<thead>
<tr>
<th>ACT</th>
<th>SAT</th>
<th>COMPASS Algebra Domain</th>
<th>ASSET</th>
<th>KYOTE</th>
<th>TABE A</th>
<th>KCTCS Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>27 or higher</td>
<td>610 or higher</td>
<td>83-99</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>MAT 170, MAT 175 or any course listed below</td>
</tr>
<tr>
<td>22 or higher</td>
<td>510 or higher</td>
<td>50-99</td>
<td>El. Alg 46-55</td>
<td>CA 14 or higher</td>
<td>NA</td>
<td>MAT 150 or any course listed below</td>
</tr>
<tr>
<td>19-21</td>
<td>460 or higher</td>
<td>36-49</td>
<td>El. Alg 41-45</td>
<td>Int. Alg 39-42</td>
<td>NA</td>
<td>MAT 150 with MAT 100 or supplemental instruction; MAT 146, MAT 105; MAT 110; MAT 116; MAT 126 or any course listed below</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>El. Alg 39-40</td>
<td>Int. Alg 36-38</td>
<td>CA 7-13 or MP 18-21</td>
<td>NA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ACT</th>
<th>SAT</th>
<th>COMPASS Algebra Domain</th>
<th>ASSET</th>
<th>KYOTE</th>
<th>TABE A</th>
<th>KCTCS Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-30</td>
<td></td>
<td>El. Alg 34-8</td>
<td>CA 5-13</td>
<td>NA</td>
<td></td>
<td>MAT 105, MAT 110, or MAT 116 with supplemental instruction3 or any course listed below</td>
</tr>
<tr>
<td>16-30</td>
<td></td>
<td>Int. Alg 33-35</td>
<td></td>
<td></td>
<td></td>
<td>MAT 065 or any course listed below</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPASS Pre-algebra Domain</th>
<th>ASSET</th>
<th>KYOTE</th>
<th>TABE A</th>
<th>KCTCS Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>42-99</td>
<td>N. Skills 38-55</td>
<td>MP 12-17</td>
<td>10.2 -12.9</td>
<td>MAT 065 or any course listed below</td>
</tr>
<tr>
<td>24-41</td>
<td>N. Skills 25-37</td>
<td>MP 6-11</td>
<td>6.4 -10.1</td>
<td>MAT 055</td>
</tr>
<tr>
<td>Less than 24</td>
<td>N. Skills 23-24</td>
<td>MP 0-5</td>
<td>Less than 6.4</td>
<td>ARI 030 or Refer to Adult Basic Education</td>
</tr>
</tbody>
</table>

1. MAT 100 offers supplementary academic support for MAT 150.
2. MAT 105, MAT 110, MAT 116 do not serve as prerequisites for intermediate algebra.
3. The KYOTE College Algebra Placement Test (CA) is administered after the (Transitional) Mathematics Placement Test (MP) if the MP score is 27 or higher.
4. Enrollment permitted only with concurrent supplementary instruction. College designated supplemental instruction must offer supplementary academic support, such as extra class sessions, additional labs, tutoring, and increased monitoring of students, beyond that usually associated with an entry-level course.

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

<table>
<thead>
<tr>
<th>ACT</th>
<th>SAT</th>
<th>COMPASS</th>
<th>ASSET</th>
<th>KYOTE</th>
<th>TABE A</th>
<th>WorkKeys</th>
<th>KCTCS Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT 20 or higher</td>
<td>470 Critical Reading</td>
<td>85-100</td>
<td>44-55</td>
<td>20 or higher</td>
<td>12.2-12.9</td>
<td>82-90</td>
<td>No reading required</td>
</tr>
<tr>
<td>83-84</td>
<td>43</td>
<td>11.4-12.1</td>
<td>79-81</td>
<td></td>
<td></td>
<td></td>
<td>Entry-level courses with concurrent enrollment in RDG 185, or supplemental instruction1, 2</td>
</tr>
<tr>
<td>70-82</td>
<td>38-42</td>
<td>9.0-11.3</td>
<td>75-78</td>
<td></td>
<td></td>
<td></td>
<td>RDG 0302 or DRE 030 2</td>
</tr>
<tr>
<td>49-69</td>
<td>32-37</td>
<td>5.5-8.9</td>
<td>73-74</td>
<td></td>
<td></td>
<td></td>
<td>RDG 020</td>
</tr>
<tr>
<td>48 and below</td>
<td>No score available</td>
<td>5.4 and below</td>
<td>72 and below</td>
<td></td>
<td></td>
<td>Refer to Adult Basic Education for Reading</td>
<td></td>
</tr>
</tbody>
</table>

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

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

NOTE: Transfer students with 12 or more credit hours at the 100 level or above in general education courses with a 2.0 GPA are exempt from reading placement requirements.

### English Course Placement

<table>
<thead>
<tr>
<th>ACT</th>
<th>SAT</th>
<th>COMPASS</th>
<th>ASSET</th>
<th>KYOTE</th>
<th>TABE A</th>
<th>KCTCS Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 or above</td>
<td>Writing 430 or Critical Reading 450</td>
<td>74 -100</td>
<td>43-55</td>
<td>6 or higher</td>
<td>12.8 -12.9</td>
<td>ENG 101</td>
</tr>
<tr>
<td>39-73</td>
<td>38-42</td>
<td>9.6-12.7</td>
<td></td>
<td></td>
<td></td>
<td>ENC 091</td>
</tr>
<tr>
<td>26-38</td>
<td>33-37</td>
<td>8.1-9.5</td>
<td></td>
<td></td>
<td></td>
<td>ENC 090 or ARI 010</td>
</tr>
<tr>
<td>25 and below</td>
<td>No score available</td>
<td>8.0 and below</td>
<td></td>
<td></td>
<td></td>
<td>Refer to Adult Basic Education for English</td>
</tr>
</tbody>
</table>

Note: Students may be advised to enroll in ENC 092 (Writing Laboratory), or ENG 100, or supplemental work defined by the college concurrent with their enrollment in ENG 101 if they have completed ENC 091 and need the assistance provided by the writing laboratory. Supplemental instruction includes extra class sessions, additional labs, tutoring, and increased monitoring of students beyond that usually associated with an entry-level course.
Tuition and Charges

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

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

Mandatory Student Fee

A mandatory student fee of $8 per credit hour will be assessed in the 2015-2016 academic year. Questions regarding fees may be directed to your college’s business office.

Charges for Customized Course Offerings

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

Charges for Services

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

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

Charges for Special Examination

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

Cancellation of Registration for Non-Payment of Charges

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

Payment Plan Options

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

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

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

Total payment of the balance of tuition and charges must be made by the required date. Contact your local college business office for specifics.
Tuition and Charges

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

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

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

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

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

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

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

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

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

Refunds

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

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

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>

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

KCTCS Online Learn on Demand

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

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

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

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

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

Professional Liability Insurance

Students who enroll in any course requiring patient/client contact must show evidence they have professional liability insurance or purchase insurance through the college. This charge is non-refundable and is subject to change without notice. Please contact the College Business Office for details concerning the charge for Professional Liability Insurance.
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 a FAFSA and a high school diploma or a General Education Development (GED) Certificate. You apply for student aid electronically by using the U.S. Department of Education’s Website, www.fafsa.ed.gov. Applying for student financial aid is free. You will need the latest income tax forms for you and your spouse or you and your parents (1040, 1040 A, 1040EZ, or 1040 Telefile). If you did not file a tax return you will need documentation of all sources of income, taxed or untaxed.

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

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.

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

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

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

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

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

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

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

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

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

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

Satisfactory Academic Progress (SAP)

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

Appeal Process

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

Suspension Due to GPA

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

Personal Financial Liability - Withdrawing or All “E”s

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

Student and Academic Services

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

Counseling

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

Placement

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

Testing

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

Students with Disabilities

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

Information Technology

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

Learning Laboratories

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

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

Libraries

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

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

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

Student Housing

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

Ready to Work: Assistance for Low-Income Parents

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

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

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

Ready to Work services have been expanded to include adult basic education students who are working toward their GEDs and college readiness. Work and Learn services are available to adult basic education students to help make their transition to college a smooth and successful one through:

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

KY Adult Education Services

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

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

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

Policies and Procedures

Right to Know

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

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

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

Student Rights and Responsibilities

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

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

Drug-Free Policy

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

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

Sexual Harassment

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

Grievance Procedures

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

Student Organizations

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

National Vocational Technical Honor Society

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

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

Student Government

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

Inter-KCTCS College Student Advisory Council

The Student Advisory Council consists of a representative from each college. Members of this organization serve in an advisory capacity to Office of the Chancellor. The Advisory Council also provides the opportunity for the student body representatives to exchange ideas on topics of mutual concern.

Co-Curricular Activities

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

FERPA

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

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

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

Privacy and Release of Student Records

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

Student Records Maintenance

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

- Academic records from schools previously attended
- Scores or results on various standardized tests and interest/attitude inventories
- Degrees awarded
- Current academic work completed
- Grades and other faculty evaluations
- Applications for admissions
- Applications and other data related to financial aid
- Applications for employment
- Class rosters
- Letters of recommendation
- Academic advisor notes
- Attendance data
- Biographical and identifying information (including name, social security number, sex, marital status, date of birth, residency and citizenship status, ethnic background, academic major, and military status)
- 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.
KCTCS colleges offer AA, AS, and AFA degree programs which allow students to tailor and complete a general course of study to meet their interests and to fulfill the general education requirements of the first two years of bachelor degree programs; AAS occupational/technical degree programs to meet workforce needs and which may be transferable to a bachelor degree; occupational/technical diplomas and certificates that are also aligned with workforce needs; dual credit courses for high school students; and continuing education and community service opportunities.

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

### Academic Advising

Academic advising is an essential element of the total educational experience and is available to every KCTCS student. Whether a student is seeking credentials exclusively from KCTCS or plans to use the education obtained at KCTCS to pursue a higher degree at another institution, academic advising is critical. Advisors strive to assist students in obtaining accurate information about academic requirements, long- and short-term educational planning, and resources available to assist students in advancing their academic and professional goals. Students with specific plans should contact an advisor at the local KCTCS college as soon as these goals are identified for the most effective advising and planning. In order to receive academic advising students should consult the local KCTCS college for information. Students can also refer to the Transfer Contacts listed on pages 59 to 61 on the KCTCS web site at: kctcs.edu Search words: Transfer Contacts to assist with transfer planning at KCTCS and a four-year university.

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

### General Education Certifications

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

### Fully General Education Certified

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

### Category Certification

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

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

### Transfer to Baccalaureate Institutions

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

### Transfer Contacts and Services

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

### KCTCS Transfer Contacts

**Chancellor’s Office**
300 North Main Street
Versailles, KY 40383
(859) 256-3389
Ashland Community and Technical College

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

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

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

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

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

Big Sandy Community and Technical College

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

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

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

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

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

Bluegrass Community and Technical College

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

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

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

Elizabethtown Community and Technical College

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

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

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

Gateway Community and Technical College

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

Urban Metro Campus, 214 Two Rivers Building
Transfer Contacts

Dr. Mike Rosenberg
Director of Transfer
500 Technology Way
Florence, KY 41042
Phone: 859-815-7681
Fax: 859-442-1107
michael.rosenberg@kctcs.edu

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

Academic Services

Transfer Contacts

Selena Sanchez
Transfer Advisor
Jefferson Community & Technical College
Downtown Campus, JEC Building room 603
(502) 213-2283
Selena.sanchez@kctcs.edu

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

Julie Branham
Jefferson Community and Technical College
Southwest Campus – Student Community Building
(502) 213-2602
Julie.branham@KCTCS.edu

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

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

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

Maysville Community College

Transfer Services
Transfer Center
Main Campus, Administration Building
Room A251
dana.calland@kctcs.edu

Maysville Community and Technical College

Transfer Services
Transfer Center
Main Campus, Administration Building, Room A251
dana.calland@kctcs.edu

Hazard Community and Technical College

Transfer Services
University Center of the Mountains
Hazard Campus, Jolly Classroom Center

Transfer Contact

Renée Back
Transfer Advisor
Hazard Community and Technical College
One Community College Drive
University Center of the Mountains
152B Jolly Classroom Center
Hazard, KY 41701
606-487-3155
renec.back@kctcs.edu

Henderson Community College

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

Transfer Contact

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

Hopkinsville Community College

Transfer Services
Student Transition Center
Main Campus, Technology Center Building

Transfer Contact

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

Jefferson Community and Technical College

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

Transfer Contacts

Selena Sanchez
Transfer Advisor
Jefferson Community & Technical College
Downtown Campus, JEC Building room 603
(502) 213-2283
Selena.sanchez@kctcs.edu

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

Julie Branham
Jefferson Community and Technical College
Southwest Campus – Student Community Building
(502) 213-2602
Julie.branham@KCTCS.edu

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

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

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

Maysville Community College

Transfer Services
Main Campus, John H Gray Building
Enrollment Center

Transfer Contact

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

Madisonville Community College

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

Transfer Contact

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

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

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

Sandy Carden
Registrar
Owensboro Community and Technical College
4800 New Hartford Road
Owensboro, KY 42303
(270) 686-4536
(866) 755-6282
sandy.carden@kctcs.edu

Somerset Community College

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

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

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

Southcentral Kentucky Community and Technical College

Transfer Services
Transition Center
Main Campus, Building A

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

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

Southeast Kentucky Community and Technical College

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

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

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

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

West Kentucky Community and Technical College

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

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

Public University Transfer Contacts

Eastern Kentucky University

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

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

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

Advanced Placement Program

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

<table>
<thead>
<tr>
<th>AP Test</th>
<th>Score</th>
<th>Credit Awarded</th>
<th>Credit Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art History</td>
<td>3</td>
<td>ART 105 or ART 106</td>
<td>3 credit hours</td>
</tr>
<tr>
<td></td>
<td>4-5</td>
<td>ART 105 and ART 106</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>Biology</td>
<td>3</td>
<td>BIO 112</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Calculus AB</td>
<td>3</td>
<td>MAT 175</td>
<td>5 credit hours</td>
</tr>
<tr>
<td>Calculus BC</td>
<td>3</td>
<td>MAT 175 and MAT 185</td>
<td>10 credit hours</td>
</tr>
<tr>
<td>Chemistry</td>
<td>3</td>
<td>CHE 170</td>
<td>3 credit hours</td>
</tr>
<tr>
<td></td>
<td>4-5</td>
<td>CHE 170 &amp; CHE 180</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>Chinese Language and Culture</td>
<td>4</td>
<td>RAE 150</td>
<td>4 credit hours</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>RAE 150 and RAE 151</td>
<td>8 credit hours</td>
</tr>
<tr>
<td>Comparative Government and Politics</td>
<td>3</td>
<td>POL 210</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Computer Science A</td>
<td>3</td>
<td>TRN 172</td>
<td>3 credit hours</td>
</tr>
<tr>
<td></td>
<td>4-5</td>
<td>CIT 149</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>English Language/Composition</td>
<td>3</td>
<td>ENG 161</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>English Language/Composition</td>
<td>3</td>
<td>ENG 101</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Environmental Science</td>
<td>3</td>
<td>EST 150</td>
<td>4 credit hours</td>
</tr>
<tr>
<td>Course</td>
<td>Credits</td>
<td>Notes</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>---------</td>
<td>----------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>European History</td>
<td>3</td>
<td>HIS 104 and HIS 105</td>
<td></td>
</tr>
<tr>
<td>French Language</td>
<td>3</td>
<td>FRE 201</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4-5</td>
<td>FRE 201 and FRE 202</td>
<td></td>
</tr>
<tr>
<td>German Language</td>
<td>3</td>
<td>GER 201</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4-5</td>
<td>GER 201 and GER 202</td>
<td></td>
</tr>
<tr>
<td>Human Geography</td>
<td>3</td>
<td>GEO 172</td>
<td></td>
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<tr>
<td>Italian Language and Culture</td>
<td>3</td>
<td>TRN 106***</td>
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<tr>
<td></td>
<td>4-5</td>
<td>TRN 106 and TRN 107***</td>
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<tr>
<td>Japanese Language and Culture</td>
<td>3</td>
<td>JPN 201</td>
<td></td>
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<tr>
<td></td>
<td>4-5</td>
<td>JPN 201 and JPN 202</td>
<td></td>
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<tr>
<td>Latin: Vergil</td>
<td>3</td>
<td>TRN 106***</td>
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<tr>
<td></td>
<td>4-5</td>
<td>TRN 106 and 107***</td>
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</tr>
<tr>
<td>Microeconomics</td>
<td>3</td>
<td>ECO 201</td>
<td></td>
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<tr>
<td>Macroeconomics</td>
<td>3</td>
<td>ECO 202</td>
<td></td>
</tr>
<tr>
<td>Music Theory</td>
<td>3</td>
<td>MUS 174</td>
<td></td>
</tr>
<tr>
<td>Physics B*</td>
<td>3</td>
<td>PHY 201 and PHY 203</td>
<td></td>
</tr>
<tr>
<td>Physics C** (mechanics)</td>
<td>3</td>
<td>PHY 231</td>
<td></td>
</tr>
<tr>
<td>Physics C** (electricity and magnetism)</td>
<td>3</td>
<td>PHY 232</td>
<td></td>
</tr>
<tr>
<td>Psychology</td>
<td>3</td>
<td>PSY 110</td>
<td></td>
</tr>
<tr>
<td>Spanish Language</td>
<td>3</td>
<td>SPA 201</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4-5</td>
<td>SPA 201 and 202</td>
<td></td>
</tr>
<tr>
<td>Spanish Literature</td>
<td>3</td>
<td>TRN 110 (humanities)***</td>
<td></td>
</tr>
<tr>
<td>Statistics</td>
<td>3</td>
<td>STA 220</td>
<td></td>
</tr>
<tr>
<td>Studio Art 2-D</td>
<td>3</td>
<td>ART 112</td>
<td></td>
</tr>
<tr>
<td>Studio Art 3-D</td>
<td>3</td>
<td>ART 113</td>
<td></td>
</tr>
<tr>
<td>Studio Art – Drawing</td>
<td>3</td>
<td>ART 110</td>
<td></td>
</tr>
<tr>
<td>US Government &amp; Politics</td>
<td>3</td>
<td>POL 101</td>
<td></td>
</tr>
<tr>
<td>US History</td>
<td>3</td>
<td>HIS 108 and HIS 109</td>
<td></td>
</tr>
<tr>
<td>World History</td>
<td>3</td>
<td>HIS 101</td>
<td></td>
</tr>
</tbody>
</table>

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

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

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

**American Council on Education**

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

**Articulation Agreements**

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

**Certified Professional Secretary Examination**

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

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

<table>
<thead>
<tr>
<th>Part II – Office Administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Communications – 3 credits</td>
</tr>
<tr>
<td>Records Management 3 credits</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part III – Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management &amp; Supervision– 4 credits</td>
</tr>
<tr>
<td>Human Resource Management – 3 credits</td>
</tr>
<tr>
<td>Accounting – 1 credit</td>
</tr>
</tbody>
</table>

**Recommended credit total : 20**

**Total credit: 21**

Child Development Associate

After successfully completing one three credit hour IEC course, a student enrolled in the IEC program who holds a current Child Development Associate (CDA) credential from the Council for Professional Recognition will be granted credit for IEC 101, IEC102, and IEC 190. No other courses will be substituted for credit.

Commonwealth Child Care Credential

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

Military School Age (MSA)

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

College Level Examination Program (CLEP)

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

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Minimum Score</th>
<th>College Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calculus</td>
<td>50</td>
<td>MAT 174 or MAT 175</td>
<td>4, 5</td>
</tr>
<tr>
<td>College Mathematics</td>
<td>50</td>
<td>MAT 146</td>
<td>3</td>
</tr>
<tr>
<td>College Algebra</td>
<td>50</td>
<td>MAT 150</td>
<td>3</td>
</tr>
<tr>
<td>Precalculus</td>
<td>50</td>
<td>MAT 160</td>
<td>5</td>
</tr>
<tr>
<td>Biology</td>
<td>50-59</td>
<td>BIO 112</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>60-64</td>
<td>BIO 120, BIO 112</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>65-80</td>
<td>BIO 150, 152</td>
<td>6</td>
</tr>
<tr>
<td>General Chemistry</td>
<td>50 or above</td>
<td>CHE 170, 180</td>
<td>6</td>
</tr>
<tr>
<td>Natural Science</td>
<td>50</td>
<td>BIO 112</td>
<td>3</td>
</tr>
</tbody>
</table>

### Business and Computer Applications

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

### English and Humanities

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

### 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 the ACE Guide to the Evaluation of Educational Experiences in the Armed Services (ACE Guide), published by the American Council on Education.

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

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

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

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

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

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

Modularized Credit Courses

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

Academic Policies and Rules

Policies Related to Enrollment

Student Load – Full-time Status

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

Student Load – Maximum Student Load

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

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

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

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

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

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

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

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

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

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

Academic Probation, Academic Suspension, and Reinstatement

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

Academic Suspension (Dismissal): If a student is placed on academic probation for two consecutive terms (which is noted on the transcript as “subject to dismissal” the second time) and does not earn either a cumulative GPA or a term GPA of at least 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 college for at least one 16-week semester and providing evidence of ability to perform at the level required. A student who has been academically suspended shall, upon reinstatement, be placed on academic probation and be subject to academic suspension if the student has failed to earn a current term GPA of 2.0 during the first term of reinstatement. Upon a second suspension, a student may be reinstated by the president (or designee) after remaining out of the college for at least two 16-week semesters and providing evidence of ability to perform at the level required.

Repeating a Course

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

Final Exams

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

Dean’s List

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

**Academic Bankruptcy (Readmission after Two or More Years)**

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

**Policies Related to Graduation**

**Graduation Requirements**

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

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

- Associate in Arts, Associate in Science, Associate in Fine Arts, Associate in Applied Science, and Associate in Applied Technology degrees, students must satisfactorily complete 60 credits, including the general education requirements as specified in the KCTCS Board of Regents Policies 4.11 and 4.12 and program requirements, with a cumulative grade point average of at least 2.0.
- Diplomas, 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 below in the Academic Credentials Awarded section.

**Graduation With Honors**

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

**Multiple Associate Degrees**

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

**Kentucky Community and Technical College Guarantee**

KCTCS colleges offer employers of graduates the following guarantee:

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

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


### 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>
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<tr>
<td>Oral Communications</td>
<td>3 credit hours</td>
<td>3 credit hours</td>
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<tr>
<td>Arts and Humanities</td>
<td>6 credit hours</td>
<td>6 credit hours</td>
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<tr>
<td>Quantitative Reasoning</td>
<td>3 credit hours</td>
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</tr>
<tr>
<td>Natural Sciences</td>
<td>3 credit hours</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>Social and Behavioral Sciences</td>
<td>9 credit hours</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>Subtotal General Education Core</td>
<td>33 credit hours</td>
<td>33 credit hours</td>
</tr>
</tbody>
</table>

**Associate in Arts Requirements**

12 credit hours

Select from headings in the Core Categories and/or Foreign Language (see pages 75-78). At least 6 credit hours must be selected from Arts and Humanities and/or Social and Behavioral Sciences and/or Foreign Language. Students are advised to choose hours to satisfy pre-major requirements at the institution to which they are transferring.

**Associate in Science Requirements**

12 credit hours

Select from headings in the Core Categories and/or Foreign Language (see pages 75-78). At least 6 credit hours must be selected from Quantitative Reasoning and/or Natural Sciences. Students are advised to choose hours to satisfy pre-major requirements at the institution to which they are transferring.

**Electives**

15 credit hours

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

**Total Credit Hours**

60 credit hours

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

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

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

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

### Associate in Fine Arts (AFA)

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

**General Education Component:**

- Written and Oral Communications: 9 credit hours
- Arts and Humanities: 3 credit hours
- Quantitative Reasoning: 3 credit hours
- Natural Sciences: 3 credit hours
- Social and Behavioral Sciences: 6 credit hours
- Total General Education: 24 credit hours

**Fine Arts Core**

Sub-Total: 18 credit hours

**Concentration**

Sub-Total: 18 credit hours

Total: 60 credit hours

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

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

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

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

### Associate in Applied Science (AAS)

**General Education component:**

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

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

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

### Technical and Support Component

45 - 53

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

**Total Credit Hours:**

60 - 68

AAS degree programs should incorporate multiple exit points, i.e. awarding certificates and diplomas, when possible.
Degree requirements: (1) minimum cumulative GPA of 2.0, (2) minimum of 25% of credit hours required for the degree must be earned at the institution awarding the degree, and (3) demonstration of digital literacy.

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

**Diploma**

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

1. Diplomas will address appropriate general education competencies.
2. Diploma curricula will be approved through the KCTCS Curriculum process.
3. Diplomas will be applicable toward at least one associate degree.
   (Courses designated “Diploma Only” on the General Education list will not apply toward an Associate Degree)
4. General education 6 credit hour requirement for diplomas in areas 1-2 as follows:
   - Area 1: Written/Oral Communications, Humanities, or Heritage 3 credit hours
   - Area 2: Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning 3 credit hours

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

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

**Technical & Support*** 30 - 54

**Total Credit Hours** 36 - 60

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

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

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

**Certificate**

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

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

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

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

**Foundation Skills**

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

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

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

**Competencies**

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

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

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

Systems: understanding social, organizational, and technological systems, monitoring and correcting performance, and designing or improving systems;

Technology: selecting equipment and tools, applying technology to specific tasks, and maintaining and troubleshooting technologies.

**Total Credit Hours** 12 – 30

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

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

**Continuing Education Certificate**

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

**Specialized Training**

**Adult Agriculture**

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

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

Continuing Education Courses

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

Customized Industry Training

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

Fire/Rescue Training

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

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

Fire Rescue Training for Business, Industry and Municipal Government

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

Emergency Medical Technician Certificate

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

For specific program information see page 144.

State Fire Rescue Training Coordinators and Contact Information

**West Kentucky Community & Technical College (Area 1)**
Charles Lott, Coordinator
P. O. Box 8227
7810 Alben Barkley Drive
Paducah, KY 42002-8227
(800#) 888-306-7901
charles.lott@kctcs.edu
Counties: Ballard, Calloway, Carlisle, Fulton, Graves, Hickman, Livingstone, Marshall, McCracken

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

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

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

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

**Jefferson Community & Technical College (Area 6)**
Mike Wallingford, Coordinator
1361 Frankfort Road
Shelbyville, KY 40065
(800#) 888-306-8064
mike.wallingford@kctcs.edu
ronnie.day@kctcs.edu
Counties: Bullitt, Henry, Jefferson, Oldham, Shelby, Spencer, Trimble

**Gateway Community & Technical College (Area 7)**
Bill Birkle, Coordinator
P. O. Box 76488
90 Campbell Drive
Highland Heights, KY 41076
(800#) 888-306-8101
bill.birkle@kctcs.edu
Counties: Boone, Campbell, Carroll, Gallatin, Grant, Kenton, Owen, Pendleton
Maysville Community & Technical College/Rowan Campus (Area 9)
Duane Suttles, Coordinator
99 Lake Park Drive
Morehead, KY 40351
(800)# 888-301-2946
duane.suttles@kctcs.edu
Counties: Bath, Bracken, Elliott, Fleming, Lewis, Mason, Menifee, Montgomery, Morgan, Robertson, Rowan

Ashland Community & Technical College (Area 10)
Mark Hammond, Coordinator
12307 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)
Chantz McPeek, Coordinator
45 Gorman Hollow Road
Hazard, KY 41701
(800)# 888-234-6759
chantz.mcpeek@kctcs.edu
Counties: Breathitt, Knott, Lee, Leslie, Letcher, Owsley, Perry, Wolfe

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

Somerset Community College (Area 14)
Josh Whitis, Coordinator
180 Oak Leaf Lane
Somerset, KY 42503
(606) 219-2243
josh.whitis@kctcs.edu
Counties: Adair, Casey, Clinton, Cumberland, Green, McCreary, Pulaski, Russell, Taylor, Wayne

Bluegrass Community & Technical College/Lawrenceburg Campus (Area 15)
Brian Steele, Coordinator
KY Fire Commission
118 James Court
Lexington, KY 40505
(800) 782-6823
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:

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

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

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

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

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

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

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

AS
MAT 150 College Algebra ............................................. 3
MAT 154 Trigonometry ............................................... 2
MAT 155 Trigonometry ............................................... 3
MAT 159 Analytic Geometry and Trigonometry ............... 4
MAT 160 PreCalculus ................................................ 5
MAT 165 Finite Mathematics and its Applications ............ 3
MAT 170 Brief Calculus with Applications ..................... 3
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<thead>
<tr>
<th>Course Code</th>
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<tr>
<td>MAT 174</td>
<td>Calculus I</td>
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<tr>
<td>MAT 175</td>
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</tr>
<tr>
<td>MAT 184</td>
<td>Calculus II</td>
</tr>
<tr>
<td>MAT 185</td>
<td>Calculus II</td>
</tr>
<tr>
<td>MAT 206</td>
<td>Mathematics for Elementary and Middle School Teachers II</td>
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<tr>
<td>MAT 261</td>
<td>Introduction to Number Theory</td>
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<tr>
<td>MAT 275</td>
<td>Calculus III</td>
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<tr>
<td>MAT 285</td>
<td>Differential Equations</td>
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<tr>
<td>STA 210</td>
<td>Statistics: A Force in Human Judgment</td>
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<td>STA 220</td>
<td>Statistics</td>
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</table>

**Natural Sciences Diploma**

- PHX 130 Introductory Physics *Course satisfies the General Education requirement for a laboratory experience.*
- BIO 122 Introduction to Conservation Biology |
- BIO 124 Principles of Ecology |
- BIO 130 Aspects of Human Biology |
- BIO 135 Basic Anatomy and Physiology with Laboratory |
- BIO 137 Human Anatomy and Physiology I |
- BIO 139 Human Anatomy and Physiology II |
- BIO 140 Botany |
- BIO 141 Botany with Laboratory |
- BIO 142 Zoology |
- BIO 143 Zoology with Laboratory |
- BIO 144 Insect Biology |
- BIO 150 Principles of Biology I |
- BIO 151 Principles of Biology Laboratory I |
- BIO 152 Principles of Biology II |
- BIO 153 Principles of Biology Laboratory II |
- BIO 155/AST 155 Astrophysics |
- BIO 209 Introductory Microbiology Lab |
- BIO 220 The Genetic Perspective |
- BIO 225 Medical Microbiology |
- BIO 226 Principles of Microbiology |
- BIO 227 Principles of Microbiology with Laboratory |
- CHE 120 Chemistry in Society |
- CHE 125 The Joy of Chemistry Laboratory |
- CHE 130 Introductory General and Biological Chemistry |
- CHE 140 Introductory General Chemistry |
- CHE 145 Introductory General Chemistry Laboratory |
- CHE 150 Introduction to Organic and Biological Chemistry |
- CHE 155 Intro to Organic and Biological Chemistry Laboratory |
- CHE 170 General College Chemistry I |
- CHE 175 General College Chemistry Laboratory I |
- CHE 180 General College Chemistry II |
- CHE 185 General College Chemistry Laboratory II |
- CHE 220 Analytical Chemistry |
- CHE 270 Organic Chemistry I |
- CHE 275 Organic Chemistry Laboratory I |
- CHE 280 Organic Chemistry II |
- CHE 285 Organic Chemistry Laboratory II |
- EST 150 Introductory Ecology |
- EST 160 Hydrological Geology |
- GEO 130 Earth’s Physical Environment |
- GEO 251 Weather and Climate |
- GLY 101 Physical Geology |
- GLY 102 Historical Geology |
- GLY 110 Environmental Geology |
- GLY 111 Laboratory for Physical Geology |
- GLY 112 Laboratory for Historical Geology |
- GLY 114 Environmental Geology Laboratory |
- GLY 130 Dinosaurs and Disasters: A Brief History of the Vertebrates |
- GLY 131 Dinosaur Laboratory |
- GLY 220 Principles of Physical Geology |
- PHY 151 Introductory Physics I |
- PHY 152 Introductory Physics II |
- PHY 160 Physics and Astronomy for Elementary Teachers |
- PHY 161 Introductory Physics Laboratory |
- PHY 162 Introductory Physics Laboratory II |
- PHY 171 Applied Physics |
- PHY 172 Physics for Health Science |
- PHY 201 College Physics I |
- PHY 202 College Physics Lab I |
- PHY 203 College Physics II |
- PHY 204 College Physics Lab II |
- PHY 231 General University Physics I |
- PHY 232 General University Physics II |
- PHY 241 General University Physics I Laboratory |
- PHY 242 General University Physics II Laboratory |
- SCI 295 Scientific Investigations |

**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, AS, AFA**

- AGR 101 The Economics of Food and Agriculture |
- ANT 101 Introduction to Anthropology |
- ANT 130/REL 130 Introduction to Comparative Religion |
- ANT 160 Cultural Diversity in the Modern World |
- ANT 220 Introduction to Cultural Anthropology |
- ANT 221 Native People of North America |
- ANT 235 Food and Culture |
- ANT 241 Origins of Old World Civilizations |
- ANT 242 Origins of New World Civilizations |
- COM 101 Introduction to Communications |
- COM 249 Mass Media and Mass Culture |
- COM 254 Intro to Intercultural Communications |
- ECO 101 Contemporary Economic Issues |
- ECO 150 Introduction to Global Economics |
- ECO 201 Principles of Microeconomics |
- ECO 202 Principles of Macroeconomics |
- FAM 252 Introduction to Family Science |
- FAM 253 Human Sexuality: Development, Behavior, and Attitudes |
- FLK 280 Cultural Diversity in the US |
- GEN 140 Development of Leadership |
- GEN 225 Lifelong Learning Applications |
- GEO 152 Regional Geography of the World |
- GEO 160 Lands and Peoples of the Non-Western World |
- GEO 172 Human Geography |
- GEO 210 Pollution, Hazards and Environmental Management |
- GEO 222 Cities of the Worlds |
- GEO 240 Geography and Gender |
- HUM 135 Introduction to Native American Literature |
- HUM 202 Survey of Appalachian Studies I |
- HUM 203 Survey of Appalachian Studies II |
- HUM 204 Appalachian Seminar |
- HUM 221 Contemporary Perspectives on Peace and War |
- POL 101 American Government |
- POL 210 Introduction to European Politics: East and West |
- POL 212 Culture and Politics in the Third World |
- POL 235 World Politics |
- POL 255 State Government |
- PSY 110 General Psychology |
- PSY 180 Human Relations |
- PSY 185 Human Potential |
- PSY 230 Psychosocial Aspects of Death and Dying |
- PSY 231 Developmental Psychology |
- PSY 297 Psychology of Aging |
PSY 298 Essentials of Abnormal Psychology ........................................... 3
RAE 120 Introduction to Chinese Culture ........................................... 3
REL 101 Introduction to Religious Studies ........................................... 3
REL 130 Introduction to Comparative Religion ..................................... 3
SOC 101 Introduction to Sociology ................................................... 3
SOC 151 Social Interaction .................................................................... 3
SOC 152 Modern Social Problems ..................................................... 3
SOC 220 The Community .................................................................... 3
SOC 235 Inequality in Society ............................................................ 3
SOC 249 Mass Media and Mass Culture ............................................. 3
SOC 260 Population, Resources, and Change ...................................... 3
SPA 115 Hispanic Culture: (Country or Region) ................................... 3
SWK 275 The Family .......................................................................... 3
WGS 200 Introduction to Women’s and Gender Studies in the Social Sciences .......................... 3

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

**Arts and Humanities**

**Heritage**

Diploma, AAS, AA, AS, AFA

FLK 276 Introduction to Folk Studies .................................................. 3
HIS 101 World Civilization I .................................................................. 3
HIS 102 World Civilization II .............................................................. 3
HIS 104 A History of Europe Through the Middle Seventeenth Century ........................................... 3
HIS 105 A History of Europe from the Middle Seventeenth Century to the Present .............................................. 3
HIS 106 Western Culture: Science and Technology I ............................. 3
HIS 107 Western Culture: Science and Technology II .......................... 3
HIS 108 History of the U.S. Through 1865 ............................................ 3
HIS 109 History of the U.S. Since 1865 ................................................. 3
HIS 120 The World at War 1939-45 ..................................................... 3
HIS 202 History of British People to the Restoration ......................... 3
HIS 203 History of British People Since the Restoration ...................... 3
HIS 206 History of Colonial Latin America ........................................ 3
HIS 207 History of Latin America, 1810 to Present ............................. 3
HIS 215 Historical Perspectives on Prisons and Police Work ............... 3
HIS 220 Native American History: Pre-Contact to 1865 ..................... 3
HIS 221 Native American History: 1865 to Present ............................ 3
HIS 240 History of Kentucky ............................................................. 3
HIS 247 History of Islam and Middle East Peoples, 500-1250 A.D. .......................... 3
HIS 248 History of Islam and Middle East Peoples, 1250 to Present ............ 3
HIS 254 History of Sub-Saharan Africa .............................................. 3
HIS 260 African American History to 1865 .......................................... 3
HIS 261 African American History 1865 - Present ................................ 3
HIS 265 History of Women in America .............................................. 3
HIS 270 Ancient Europe .................................................................... 3
HIS 271 Medieval Europe .................................................................. 3
HIS 295 East Asia to 1800 ................................................................. 3
HIS 296 History of Asia II ................................................................... 3

**Humanities**

Diploma, AAS, AA, AS, AFA

ANT 130/REL 130 Introduction to Comparative Religion ...................... 3
ART 100 Introduction to Art ................................................................. 3
ART 104 Introduction to African Art .................................................... 3
ART 105 Ancient Through Medieval Art History .................................. 3
ART 106 Renaissance Through Modern Art History ............................. 3
ART 108 Introduction to World Art ..................................................... 3
ART 201 Ancient Art History ............................................................. 3
ART 202 Medieval Art History ........................................................... 3
ART 203 Renaissance Art History ...................................................... 3
ART 204 Modern Art History ............................................................ 3
ART 205 African American Art .......................................................... 3
ENG 135 Greek and Roman Mythology in Translation .......................... 3
ENG 161 Introduction to Literature ..................................................... 3
ENG 221 Survey of English Literature I .............................................. 3
ENG 222 Survey of English Literature II ............................................ 3
ENG 230 Introduction to Literature (Subtitle Required) ......................... 3
ENG 231 Literature and Genre (Subtitle) ............................................. 3
ENG 232 Literature and Place (Subtitle Required) ................................ 3
ENG 233 Literature and Identities (Subtitle Required) .......................... 3
ENG 234 Introduction to Women’s Literature ...................................... 3
ENG 251 Survey of American Literature I ........................................... 3
ENG 252 Survey of American Literature II ......................................... 3
ENG 261 Survey of Western Literature from the Greeks through the Renaissance .... 3
ENG 262 Survey of Western Literature from 1660 to the Present .......... 3
ENG 264 Major Black Writers .............................................................. 3
ENG 270 The Old Testament as Literature .......................................... 3
ENG 271 The New Testament as Literature ......................................... 3
ENG 281/HUM 281 Introduction to Film ............................................. 3
ENG 282/HUM 283 International Film Studies ..................................... 3
FLA 276 Introduction to Folk Studies ................................................... 3
HUM 101 Introduction to the Humanities ............................................ 3
HUM 115 Introduction to Native American Literature ......................... 3
HUM 140 Introduction to Latino Literature ........................................ 3
HUM 150 Introduction to African Literature ........................................ 3
HUM 150 Introduction to Holocaust Literature and Film ..................... 3
HUM 202 Survey of Appalachian Studies I ......................................... 3
HUM 203 Survey of Appalachian Studies II ....................................... 3
HUM 204 Appalachian Seminar ........................................................ 3
HUM 220 Historical Perspectives on Peace and War .......................... 3
HUM 230 Contemporary Japanese Literature and Culture in Translation .... 3
HUM 250 Appalachian Literature Survey ........................................... 3
HUM 251 Contemporary Appalachian Literature ................................ 3
HUM 281 Introduction to Film ........................................................... 3
MIU 101 Folk and Traditional Music of the Western Continents .......... 3
MUS 100 Introduction to Music .......................................................... 3
MUS 104 Introduction to Jazz History .................................................. 3
MUS 206 American Music ................................................................. 3
MUS 207 African American Music History ........................................ 3
MUS 208 World Music ...................................................................... 3
MUS 222 History and Sociology of Rock Music .................................. 3
PHI 100 Introduction to Philosophy: Knowledge and Reality ............... 3
PHI 110 Medical Ethics ..................................................................... 3
PHI 120 Introductory Logic ............................................................... 3
PHI 130 Ethics .................................................................................. 3
PHI 140 The Ethics of War and Peace ................................................ 3
PHI 150 Business Ethics ................................................................... 3
PHI 160 Philosophy Through Pop Culture ........................................ 3
PHI 260 History of Philosophy I: From Greek Beginnings to the Middle Ages .. 3
PHI 270 History of Philosophy II: From the Renaissance to the Present Era ............ 3
REL 101 Introduction to Religious Studies ........................................... 3
REL 120 Introduction to the Old Testament ........................................ 3
REL 121 Introduction to the New Testament ........................................ 3
REL 130 Introduction to Comparative Religion .................................... 3
REL 150 Comparative Ethics of Major World Religions ....................... 3
THA 101 Introduction to Theatre: Principles and Practices .................. 3
THA 200 Introduction to Dramatic Literature ..................................... 3
THA 283 American Theatre ............................................................... 3
WGS 201 Introduction to Women’s and Gender Studies in the Arts and Humanities .... 3

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

Foreign Languages
AAS, AA, AS, AFA
FRE 101 Elementary French I ........................................ 4
FRE 102 Elementary French II ........................................ 4
FRE 201 Intermediate French I ...................................... 3
FRE 202 Intermediate French II ..................................... 3
GER 101 Elementary German I ....................................... 4
GER 102 Elementary German II ..................................... 4
GER 201 Intermediate German I .................................. 3
GER 202 Intermediate German II .................................. 3
JPN 101 Beginning Japanese I ...................................... 4
JPN 102 Beginning Japanese II ..................................... 4
RAE 150 Elementary Chinese I ..................................... 4
RAE 151 Elementary Chinese II .................................... 4
SED 101 Sign Language I ............................................ 3
SED 102 Sign Language II ........................................... 3
SED 203 Sign Language III .......................................... 3
SED 204 Sign Language IV .......................................... 3
SPA 101 Elementary Spanish I (spoken approach) ............ 4
SPA 102 Elementary Spanish II (spoken approach) ............ 4
SPA 201 Intermediate Spanish I .................................. 3
SPA 202 Intermediate Spanish II .................................. 3

Other Degree and/or Credential Requirements

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

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

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

Humanities
ART 104 Introduction to African Art
ART 108 Introduction to World Art
ART 205 African American Art
ENG 135 Greek and Roman Mythology in Translation
ENG 233 Literature and Identity
ENG 234 Introduction to Women’s Literature
ENG 264 Major Black Writers
ENG 282/HUM 282 International Film Studies
HUM 121 Peace Studies
HUM 135 Introduction to Native American Literature*
HUM 140 Introduction to Latino Literature
HUM 150 Introduction to African Literature
HUM 160 Introduction to Holocaust Literature and Film
HUM 202 Survey of Appalachian Studies I*
HUM 203 Survey of Appalachian Studies II*
HUM 204 Appalachian Seminar*
HUM 230 Contemporary Japanese Literature and Culture in Translation
HUM 230 Appalachian Literature Survey
MU 101 Folk and Traditional Music of the Western Continents
MUS 104 Introduction to Jazz History
MUS 207 African American Music History
MUS 208 World Music
REL 101 Introduction to Religion
REL 130 Introduction to Comparative Religion*
REL 150 Comparative Ethics of Major World Religions
WGS 201 Introduction to Women’s and Gender Studies in the Arts and Humanities

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

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

Digital Literacy
CAD 103 CAD Fundamentals ........................................ 4
CIT 105 Introduction to Computing ................................ 3
DLC 100 Digital Literacy .............................................. 3
DPT 100 Introduction to 3D Printing Technology ............... 3
EDU 204 Technology in the Classroom ......................... 3
EDU 204 Technology in the Classroom ......................... 3
IMD 100 Digital Information & Communication Technologies ........................................................................... 3
OST 105 Introduction to Information Systems .................. 3
VCC 150 Mac Basics ................................................. 3

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

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

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

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

Course Transitions

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

Admission to Programs

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

KCTCS College Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>College Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTC</td>
<td>Ashland Community and Technical College</td>
</tr>
<tr>
<td>BLC</td>
<td>Bluegrass Community and Technical College</td>
</tr>
<tr>
<td>BSC</td>
<td>Big Sandy Community and Technical College</td>
</tr>
<tr>
<td>ECTC</td>
<td>Elizabethtown Community and Technical College</td>
</tr>
<tr>
<td>GTW</td>
<td>Gateway Community and Technical College</td>
</tr>
<tr>
<td>HZC</td>
<td>Hazard Community and Technical College</td>
</tr>
<tr>
<td>HEC</td>
<td>Henderson Community College</td>
</tr>
<tr>
<td>HPC</td>
<td>Hopkinsville Community College</td>
</tr>
<tr>
<td>JFC</td>
<td>Jefferson Community and Technical College</td>
</tr>
<tr>
<td>MDC</td>
<td>Madisonville Community College</td>
</tr>
<tr>
<td>MYC</td>
<td>Maysville Community and Technical College</td>
</tr>
<tr>
<td>OWC</td>
<td>Owensboro Community and Technical College</td>
</tr>
<tr>
<td>SMC</td>
<td>Somerset Community College</td>
</tr>
<tr>
<td>SKY</td>
<td>Southcentral Kentucky Community and Technical College</td>
</tr>
<tr>
<td>SEC</td>
<td>Southeast Kentucky Community and Technical College</td>
</tr>
<tr>
<td>WKCTC</td>
<td>West Kentucky Community and Technical College</td>
</tr>
</tbody>
</table>
KCTCS Online

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

KCTCS colleges offer KCTCS Online Learn by Term marketed through the Kentucky Virtual Campus (KYVC) <www.kyvc.org>. These online courses are 3-4 credits each, offered by semester, and lead to certificates, diplomas, and degrees. Online learning is an alternative for many students who cannot attend classes on campus due to scheduling conflicts, childcare, work or other commitments.

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

Additional information about KCTCS Online courses and programs for both Learn on Demand and Learn by Term, including student information, may be viewed at the main KCTCS Online web page http://www.kctcs.edu/KCTCS_Online.aspx. In addition to these online options, KCTCS colleges also offer Live Virtual Classes through video conferencing technologies and Interactive Television (ITV).

Online Programs

KCTCS Online Learn by Term – Semester-based Online Programs

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

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

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

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

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

KCTCS Online Learn by Term

Current List of Semester-based Online Programs:

Associate in Arts

Associate in Science

Associate in Applied Science:

Business Administration Systems

– Accounting Track
– Finance Track
– Hospitality Management Track
– Human Resource Management Track
– Informatics Track
– Management Track
– Office Systems Track
– Real Estate Management Track
– Telecommunication Systems Management Track
– Turf Grass/Landscaping Management Track

Computer & Information Technologies

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

Criminal Justice

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

Energy Management

– Energy Management Track

General Occupational/Technical Studies

– General Occupational/Technical Studies Track

Healthcare Facilities Leadership

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

Human Services
  - Human Services Track

Information Management and Design
  – Library Information Technology Track

Logistics & Operation Management
  – Logistics & Operations Management Track

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

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

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

Paralegal Technology
  – Paralegal Technology Track

Quality Management Systems
  – Quality Management Systems Track

Diplomas

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

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

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

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

Certificates

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

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

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

Criminal Justice
  – Computer Forensic
  – Criminal Justice Core
  – Corrections
  – Law Enforcement
  – Advanced Law Enforcement
  – Security and Loss Prevention
Digital Game and Simulation Design
- Digital Game and Simulation Design

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

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

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

Human Services
- Direct Support Work

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

Logistics & Operations Management
- Logistics Management

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

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

Nursing
- Medicaid Nurse Aide
- Advanced Nursing Assistant

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

Paralegal Technology
- Paralegal Technology

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

Visual Communication
- Animation
- Digital Imaging Assistant
- Digital Photography
- Digital Production Assistant
- Web Design

KCTCS Online Learn on Demand Programs
KCTCS Online Learn on demand is higher education on your terms. It offers accredited, affordable college programs designed to fit the busy, working adult’s schedule.

KCTCS Online Learn on Demand offers full courses composed of bite-size sections called “modules”. Modules vary in length averaging around 3 weeks in length. Learn on Demand full course offerings are 15-weeks long and include all modules required in a full course. Students may register for KCTCS Online Learn on Demand by using the online application and registration process described in detail on the website http://learnondemand.kctcs.edu.

Learn on Demand gives you unparalleled flexibility and control of your education because you can begin a new course during the first 11 Monday’s of each term. Unlike other online colleges with fixed course schedules, Learn on Demand offers each student the opportunity to work at your own pace, complete the course faster than traditional courses, and earn credit for prior knowledge. We offer virtual student services 24/7 through the Go KCTCS! Student Service Center and Learn on Demand students also have access to online tutoring as well.

Degree

Associate in Arts

Associate in Science

Business Administration
- Human Resources Management Track
- Management Track

Computer and Information Technologies
- Applications: Computer Support Track
- Information Security Track
- Network Administration: Microsoft Windows Administration Sequence
- Network Administration: CISCO Networking Associate Sequence (coming soon)
- Programming: Information Systems Sequence (coming soon)
- Programming: Software Development Sequence (coming soon)

Integrated Engineering Technology

Logistics and Operations Management (coming soon)

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

Medical Information Technology (Internship and practicum arranged onsite in student vicinity)
- Medical Coding Track
- Electronic Medical Records Track
Diploma

Business Administration Systems
- Organizational Leadership
- Small Business Management

Integrated Engineering Technology

Certificate

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

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

Integrated Engineering Technology
- Mechanical Engineering Technology
- Electrical Engineering Technology

Logistics and Operations Management (coming soon)
- Logistics Management

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

Medical Information Technology
- Electronic Health Records Specialist
- Medical Coding

Nursing
- Medicaid Nurse Aide (NAA/MNA)

Learn on Demand College Readiness Program

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

Mathematics
Writing
Reading
# Academic Curricula

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

### Gainful Employment Information

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

## Advanced Integrated Manufacturing

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

### Certificate

**Manufacturing Process Operations – 4805013019**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIM 100</td>
<td>Principles of Advanced Integrated Manufacturing</td>
<td>3</td>
</tr>
<tr>
<td>AIM 110</td>
<td>Manufacturing Processes and Materials</td>
<td>3</td>
</tr>
<tr>
<td>AIM 120</td>
<td>Introduction to Modern Plastics Manufacturing</td>
<td>3</td>
</tr>
<tr>
<td>AIT 1001</td>
<td>Basic Electrical Knowledge</td>
<td>2</td>
</tr>
<tr>
<td>AIT 1003</td>
<td>Hydraulic/Pneumatics Fundamentals</td>
<td>1</td>
</tr>
<tr>
<td>AIT 200</td>
<td>Process Management and Quality Control</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total Credits 16**

### Advanced Integrated Technology

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

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

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

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

### Associate in Applied Science

**Advanced Integrated Technology - 1504997019**

**Offered at MDC**

### Required General Education:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<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>PHY 151</td>
<td>Introductory Physics I AND</td>
<td>(3)</td>
</tr>
<tr>
<td>PHY 161</td>
<td>Introductory Physics I Lab OR</td>
<td>1</td>
</tr>
<tr>
<td>PHY 171</td>
<td>Applied Physics</td>
<td>(4)</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I OR</td>
<td>3</td>
</tr>
<tr>
<td>ENG 105</td>
<td>Writing: An Accelerated Course</td>
<td>(3)</td>
</tr>
<tr>
<td>HIS 107</td>
<td>Heritage/Humanities course (Suggested)</td>
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**Subtotal** 16

### Technical Core:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIT 100</td>
<td>Power Generation &amp; Utilization</td>
<td>4</td>
</tr>
<tr>
<td>AIT 110</td>
<td>Power Distribution Systems</td>
<td>3</td>
</tr>
<tr>
<td>AIT 120</td>
<td>Equipment Installation</td>
<td>3</td>
</tr>
<tr>
<td>AIT 130</td>
<td>Measurement and Instrumentation</td>
<td>4</td>
</tr>
<tr>
<td>AIT 140</td>
<td>Industrial Controls I</td>
<td>4</td>
</tr>
<tr>
<td>AIT 150</td>
<td>Industrial Controls II</td>
<td>4</td>
</tr>
<tr>
<td>AIT 210</td>
<td>Equipment Maintenance</td>
<td>4</td>
</tr>
<tr>
<td>AIT 270</td>
<td>Introduction to Robotics and Programmable</td>
<td>2</td>
</tr>
<tr>
<td>AIM 120</td>
<td>Welding for Maintenance</td>
<td>3</td>
</tr>
<tr>
<td>AIM 101</td>
<td>Welding for Maintenance Lab</td>
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<tr>
<td>CMM 112</td>
<td>Fundamentals of Machine Tools-B</td>
<td>4</td>
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<tr>
<td>AIT 135</td>
<td>Industrial Refrigeration I</td>
<td>3</td>
</tr>
<tr>
<td>AIT 160</td>
<td>Workplace Safety</td>
<td>1</td>
</tr>
<tr>
<td>AIT 200</td>
<td>Process Management and Quality Control</td>
<td>4</td>
</tr>
<tr>
<td>AIT 220</td>
<td>The Integrated Power Grid</td>
<td>3</td>
</tr>
<tr>
<td>AIT 230</td>
<td>Integrated Power Plant Operations</td>
<td>3</td>
</tr>
</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.

### CMM 112 Fundamentals of Machine Tools-B

### AIT 135 Industrial Refrigeration I

### AIT 160 Workplace Safety

### AIT 200 Process Management and Quality Control

### AIT 220 The Integrated Power Grid

### AIT 230 Integrated Power Plant Operations

84
Demonstration of digital literacy is required for the AAS degree.

### Certificate

#### Multi-Skilled Technician – 1504993110

(Offered at MDC, SMC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACR 100</td>
<td>Refrigeration Fundamentals</td>
<td>3</td>
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<td>Refrigeration Fundamentals Lab</td>
<td>2</td>
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<tr>
<td>IMT 100</td>
<td>Welding for Maintenance</td>
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<tr>
<td>IMT 101</td>
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</tr>
<tr>
<td>CMM 112</td>
<td>Fundamentals of Machine Tool-B</td>
<td>4</td>
</tr>
<tr>
<td>AIT 200</td>
<td>Process Management and Quality Control</td>
<td>4</td>
</tr>
<tr>
<td>AIT 270</td>
<td>Introduction to Robotics and Programmable Logic Controllers</td>
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<tr>
<td><strong>Total</strong></td>
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#### Engineering Controls – 1504993120

(Offered at MDC)

<table>
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<tr>
<td>AIT 140</td>
<td>Industrial Controls I</td>
<td>4</td>
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<tr>
<td>AIT 150</td>
<td>Industrial Controls II</td>
<td>4</td>
</tr>
<tr>
<td>AIT 190</td>
<td>Industrial Computer Programming Concepts</td>
<td>4</td>
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<tr>
<td>ELT 250</td>
<td>Programmable Logic Controllers</td>
<td>4</td>
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<tr>
<td>AET 250</td>
<td>PLC Networking</td>
<td>4</td>
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<tr>
<td>AIT 270</td>
<td>Advanced PLC Programming</td>
<td>4</td>
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<tr>
<td>AIT 270</td>
<td>Introduction to Robotics and Programmable Logic Controllers</td>
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#### Power Plant Operator - 1504993130

(Offered at MDC)

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<tr>
<td>ENM 101</td>
<td>Energy Industry Fundamentals</td>
<td>9</td>
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<tr>
<td>AIT 220</td>
<td>The Integrated Power Grid</td>
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<tr>
<td>AIT 230</td>
<td>Power Plant Capstone</td>
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<td><strong>Total</strong></td>
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#### Mechatronics Operator - 1504993089

(Offered at MDC)

<table>
<thead>
<tr>
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<tr>
<td>AIT 100</td>
<td>Power Generation and Utilization</td>
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<tr>
<td>AIT 110</td>
<td>Power Distribution Systems</td>
<td>3</td>
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<tr>
<td>AIT 1203</td>
<td>Mechanical Installation</td>
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#### Industrial Refrigeration – 1504993140

(Offered at MDC, SMC)

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<td>Refrigeration Fundamentals</td>
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<td>ACR 101</td>
<td>Refrigeration Fundamentals Lab</td>
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<td>ACR 102</td>
<td>HVAC Electricity</td>
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<td>ACR 103</td>
<td>HVAC Electricity Lab</td>
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<td>ACR 130</td>
<td>Electrical Components</td>
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<td>ACR 131</td>
<td>Electrical Components Lab</td>
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<td>AIT 135</td>
<td>Industrial Refrigeration I</td>
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<tr>
<td>AIT 215</td>
<td>Industrial Refrigeration II</td>
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### Advanced Manufacturing

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

#### Certificate

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

(Offered at GTW)

<table>
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<th>Course Title</th>
<th>Credits</th>
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<td>MFG 102</td>
<td>Certified Production Technician</td>
<td>4-6</td>
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<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
<td>3</td>
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<tr>
<td>ELT 110</td>
<td>Circuits I</td>
<td>5</td>
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<tr>
<td>MFG 125</td>
<td>Fundamentals of Mechatronics A</td>
<td>3</td>
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<tr>
<td>MFG 130</td>
<td>Fundamentals of Mechatronics B</td>
<td>3</td>
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<td><strong>Total Credits</strong></td>
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</table>

**Fundamentals of Advanced Manufacturing & Machining - 1506133099**

(Offered at GTW)

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<th>Course Title</th>
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<td>MFG 102</td>
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<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
<td>3</td>
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<tr>
<td>CMM 110</td>
<td>Fundamentals of Machine Tools A</td>
<td>3</td>
</tr>
<tr>
<td>CMM 112</td>
<td>Fundamentals of Machine Tools B</td>
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<tr>
<td>CMM 118</td>
<td>Metrology Control Charts</td>
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<td><strong>Total Credits</strong></td>
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</table>
African American Studies

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

Certificate

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

ENG 101 Writing I ............................................. 3
HIS 260 African American History I .................... 3
HIS 261 African American History II ................... 3
MUS 707 African American Music History ............. 3
ENG 264 Major Black Writers ............................. 3
Elective* .................................................... 3
Total Credits ............................................. 18

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

Agricultural Studies

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

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

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

Associate in Applied Science

Agricultural Studies – 0103017029
(Offered at OWC)

General Education:

ENG 101 Writing I ............................................. 3
MAT 110 Applied Mathematics OR ...................... 3
MAT 126 Technical Algebra and Trigonometry OR .... 3
MAT 150 College Algebra ................................... 3
BIO 112 Introduction to Biology OR ...................... 3
BIO 150 Principles of Biology I ........................... 3
AGR 101 Heritage/Humanities .............................. 3
AGS 275 Value Added Production ......................... 2
COE 199 Cooperative Education OR ..................... 2
COED 198 Practicum .......................................... (2)
Track Subtotal ............................................... 19
Total Credit Hours .......................................... 65-68

Food and Farm Management Track – 010301701
(Offered at OWC)

AGR 260 Introduction to Sustainable Agriculture ........ 3
AGS 135 Herbaceous Plant Production ................... 3
AGS 155 Greenhouse Production .......................... 3
AGS 175 Agriculture Marketing and Sales ............... 2
AGS 225 Fruit and Vegetable Production ................. 3
AGS 275 Value Added Production .......................... 3
COE 199 Cooperative Education OR ..................... 2
COED 198 Practicum .......................................... (2)
Track Subtotal ............................................... 19
Total Credit Hours .......................................... 65-68

Production Agriculture Operations Track – 010301702
(Offered at OWC)

AGR 130 Field Applications in Agriculture ............... 2
AGR 200 Agricultural Internship III ....................... 2
AGS 145 Technology in Agriculture ....................... 3
AGR 235 Field Crop Production ............................ 3
AGR 245 Pest Management .................................. 3
AGR 255 Crop Scouting ...................................... 3
AGS 285 Farm Financial Management ..................... 3
Track Subtotal ............................................... 19
Total Credit Hours .......................................... 65-68

Diploma

General Agricultural Studies - 0103014029
(Offered at OWC)

ENG 101 Writing I ............................................. 3
MAT 110 Applied Mathematics OR ...................... 3
MAT 126 Technical Algebra and Trigonometry OR .... 3
MAT 150 College Algebra ................................... 3
BIO 112 Introduction to Biology OR ...................... 3
BIO 150 Principles of Biology I ........................... 3
AGR 101 The Economics of Food and Agriculture .... 3
DIP 299 Special Topics in Theatre ......................... 3
Total Credits ................................................ 40-42
The Agricultural Technology program prepares students for occupations in a wide variety of jobs in agriculture (both production and value-added) with a range of skills and knowledge.

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

**Associate in Applied Science**

Agriculture Technology - 0103017019  
*(Offered at HEC, HPC)*

**General Education:**

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

**Subtotal** 26-27

**Technical Core:**

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

**Subtotal** 25

**Total Credits Sustainable Agriculture Track** 66-67

**Agricultural Technology Track – 010301701**  
*(Offered at HEC)*

**AGS 215** Weeds Management ..................................... 3  
**AGR 130** Field Applications in Agriculture .................. 2  
**AGR 150** Agricultural Power ...................................... 3  
**AGR 150** Issues in Agriculture .................................. 3  
**AGR 170** Introduction to Equipment, Machines, and Engines 3  
**AGR 190** Agricultural Internship II ........................... 2  
**AGR 200** Agricultural Internship III ............................ 2  
**AGR 220** Computers in the Agricultural Environment .......... 3  

**Subtotal** 15

**Total Credits Agricultural Technology Track** 40-43

**Sustainable Agriculture Track – 010301702**  
*(Offered at HEC)*

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

**Subtotal** 15

**Total Credits Sustainable Agriculture Track** 66-67

**Diploma**

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

**General Education Courses:** ........................................ 6

**Written Communication, Oral Communications, or Humanities/Heritage** .................................................. 3

**The Economics of Food and Agriculture** .................................. 3

**Subtotal** 6

**Technical Courses:**

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

**Subtotal** 35

**Total Credits** 41

**Certificates**

Agricultural Technician - 0103013009  
*(Offered at HEC, HPC)*

**AGR 140** Issues in Agriculture .................................. 3  
**AGR 150** Agricultural Power ...................................... 3  
**AGR 170** Introduction to Equipment, Machines, and Engines 3  
**AGR 190** Agricultural Internship II ........................... 2  
**AGR 220** Computers in the Agricultural Environment .......... 3  
**AGR 230** Career Development in Agriculture ............... 3  
**AGR 240** Animal Science .......................................... 3  
**AGR 125** Field Applications in Agriculture .................. 2  

**Total Credits** 24
Air Conditioning Technology

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

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

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

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

Associate in Applied Science

Air Conditioning Technology - 4702017019
(Offered at BLC, BSC, ELC, GTW, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

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

Subtotal Credits 18

Technical Courses:
Digital Literacy .............................................................. 0-3
ACR 100 Refrigeration Fundamentals .................................. 3
ACR 101 Refrigeration Fundamentals Lab .................................. 2
ACR 102 HVAC Electricity AND .............................................. 2
ACR 103 HVAC Electricity Lab OR ................................................... 2
ACR 130 Electrical Components .............................................. 3
ACR 131 Electrical Components Lab ........................................... 3
ACR 170 Heat Load/Duct Design .............................................. 3
ACR 250 Cooling and Dehumidification .................................... 3
ACR 251 Cooling and Dehumidification Lab ................................. 2
ACR 252 Heating and Humidification .......................................... 3
ACR 262 Heating and Humidification Lab ..................................... 2
ACR 270 Heat Pump Application .................................................. 3

ACR 271 Heat Pump Application Lab ......................................... 2
Electives** ................................................................. 10-12
Subtotal Credits 42-48

Total Credits 60-66

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

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
Social/Behavioral Sciences, Natural Sciences OR

Area 2 = Quantitative Reasoning .................................................. 3

Subtotal Credits 6

ACR 100 Refrigeration Fundamentals ........................................ 3
ACR 101 Refrigeration Fundamentals Lab ..................................... 2
ACR 102 HVAC Electricity AND ................................................. 2
ACR 103 HVAC Electricity Lab OR .................................................. 2
ACR 130 Electrical Components .................................................. 3
ACR 131 Electrical Components Lab ............................................. 2
ACR 170 Heat Load/Duct Design .................................................. 3
ACR 209 Manual N Commercial Load Calculations & Design ............ (4)
ACR 250 Cooling and Dehumidification ........................................ 3
ACR 251 Cooling and Dehumidification Lab .................................... 2
ACR 260 Heating and Humidification ............................................. 3
ACR 262 Heating and Humidification Lab ........................................ 2
ACR 271 Heat Pump Application .................................................... 3
ACR 271 Heat Pump Application Lab .............................................. 3
ACR 271 Heat Pump Application Lab .............................................. 2
ACR 207 Commercial HVAC Systems .......................................... (5)
ACR 291 Special Problems OR ..................................................... 1
ACR 298 Practicum .................................................................. 2
Electives** ........................................................................ 8-11

Subtotal Credits 41-50

Total Credits 47-56

*Comparable Electrical Courses:

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

Certificates

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

ACR 100 Refrigeration Fundamentals ........................................ 3
ACR 101 Refrigeration Fundamentals Lab ..................................... 2
ACR 102 HVAC Electricity AND ................................................. 3
ACR 103 HVAC Electricity Lab OR .................................................. 2
ACR 130 Electrical Components .................................................. 3
ACR 131 Electrical Components Lab ............................................. 2
ACR 250 Cooling and Dehumidification ........................................ 3
ACR 251 Cooling and Dehumidification Lab .................................... 2
**Academic Curricula**

### 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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<th>Course Title</th>
<th>Credits</th>
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<td>ACR 101</td>
<td>Refrigeration Fundamentals Lab</td>
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<tr>
<td>ACR 102</td>
<td>HVAC Electricity AND</td>
<td>3</td>
</tr>
<tr>
<td>ACR 103</td>
<td>HVAC Electricity Lab OR</td>
<td>2</td>
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<tr>
<td>ACR 130</td>
<td>Electrical Components AND</td>
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</tr>
<tr>
<td>ACR 131</td>
<td>Electrical Components Lab OR</td>
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</tr>
<tr>
<td>ACR 208</td>
<td>Chillers</td>
<td>5</td>
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<tr>
<td>ACR 209</td>
<td>Manual N Load Calculation &amp; Design</td>
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### Domestic Air Conditioner and Furnace Installer- 4702013029

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

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<th>Course Title</th>
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<td>ACR 101</td>
<td>Refrigeration Fundamentals Lab</td>
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</tr>
<tr>
<td>ACR 102</td>
<td>HVAC Electricity AND</td>
<td>3</td>
</tr>
<tr>
<td>ACR 103</td>
<td>HVAC Electricity Lab OR</td>
<td>2</td>
</tr>
<tr>
<td>ACR 130</td>
<td>Electrical Components AND</td>
<td>3</td>
</tr>
<tr>
<td>ACR 131</td>
<td>Electrical Components Lab OR</td>
<td>2</td>
</tr>
<tr>
<td>ACR 208</td>
<td>Chillers</td>
<td>5</td>
</tr>
<tr>
<td>ACR 290</td>
<td>Journeyman Preparation</td>
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<td></td>
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</table>

### Refrigeration Mechanic - 4702013059

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

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACR 100</td>
<td>Refrigeration Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>ACR 101</td>
<td>Refrigeration Fundamentals Lab</td>
<td>2</td>
</tr>
<tr>
<td>ACR 102</td>
<td>HVAC Electricity AND</td>
<td>3</td>
</tr>
<tr>
<td>ACR 103</td>
<td>HVAC Electricity Lab OR</td>
<td>2</td>
</tr>
<tr>
<td>ACR 130</td>
<td>Electrical Components AND</td>
<td>3</td>
</tr>
<tr>
<td>ACR 131</td>
<td>Electrical Components Lab</td>
<td>2</td>
</tr>
<tr>
<td>ACR 200</td>
<td>Commercial Refrigeration</td>
<td>3</td>
</tr>
<tr>
<td>ACR 201</td>
<td>Commercial Refrigeration Lab</td>
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<tr>
<td>ACR 210</td>
<td>Ice Machines</td>
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<tr>
<td>ACR 250</td>
<td>Cooling and Dehumidication</td>
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<td>Cooling and Dehumidication Lab</td>
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### Boiler Maintenance – 4702013079

(Offered at MYC, SEC, SMC, WKC)

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<td>ACR 102</td>
<td>HVAC Electricity AND</td>
<td>3</td>
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<td>ACR 103</td>
<td>HVAC Electricity Lab OR</td>
<td>2</td>
</tr>
<tr>
<td>ACR 206</td>
<td>Boilers</td>
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<td>ACR 207</td>
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### Air Conditioning Technical Electives**:

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

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<td>ACR 101</td>
<td>Refrigeration Fundamentals Lab</td>
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<td>ACR 102</td>
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<td>ACR 103</td>
<td>HVAC Electricity Lab OR</td>
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<td>ACR 208</td>
<td>Chillers</td>
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<td>ACR 209</td>
<td>Manual N Load Calculation &amp; Design</td>
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### Appalachian Studies

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

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<thead>
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<td>EET 285</td>
<td>Special Problems III</td>
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<td>EET 286</td>
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<td>EET 287</td>
<td>Programmable Logic Controllers II Lab</td>
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<tr>
<td>EET 298</td>
<td>Practicum</td>
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<td>EET 299</td>
<td>Cooperative Education Program</td>
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<tr>
<td>ELT 114</td>
<td>Circuits II</td>
<td>3</td>
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<tr>
<td>BRX 110</td>
<td>Basic Blueprint Reading for Machinist</td>
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<td>BRX 112</td>
<td>Blueprint Reading for Machinist</td>
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<tr>
<td>BRX 120</td>
<td>Basic Blueprint Reading</td>
<td>3</td>
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<tr>
<td>BRX 210</td>
<td>Mechanical Blueprint Reading for Machinist</td>
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<tr>
<td>BRX 220</td>
<td>Blueprint Reading for Construction</td>
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<td>BRX 230</td>
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<td>BEX 100</td>
<td>Basic Electricity for Non-Majors</td>
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<td>Basic Electricity Lab for Non-Majors</td>
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<td>FEX 100</td>
<td>Fundamentals of Electricity for Non-Majors</td>
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<td>ELT 102</td>
<td>Blueprint Reading</td>
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<td>ELT 106</td>
<td>Mechanical Engineering Graphics</td>
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<td>ELT 107</td>
<td>Computer Applications for Technicians</td>
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<td>ET 113</td>
<td>Laser Optics Components</td>
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<td>ET 118</td>
<td>Computer Numerical Control</td>
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<td>ET 119</td>
<td>Introduction to Computer–Aided Manufacturing</td>
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<td>ELT 122</td>
<td>Mechanical Power Transmission Systems</td>
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<tr>
<td>MNG 123</td>
<td>Mining Electricity I</td>
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<tr>
<td>ELT 124</td>
<td>Mechanical Power Transmission Systems Lab</td>
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<tr>
<td>ELT 201</td>
<td>Statics and Strength of Materials</td>
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<td>ELT 210</td>
<td>Devices I</td>
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<tr>
<td>ELT 232</td>
<td>Computer Software Maintenance</td>
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<td>Computer Hardware Maintenance</td>
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<td>ELT 243</td>
<td>Electric Power Distribution</td>
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<td>Electrical Machinery and Controls</td>
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<td>Programmable Logic Controllers</td>
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<td>ET 252</td>
<td>Electric Power Systems</td>
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<td>ELT 256</td>
<td>Microprocessor Fundamentals</td>
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<td>ET 260</td>
<td>Fluid Flow and Heat Transfer</td>
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<td>ELT 261</td>
<td>Instrumentation and Measurements</td>
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<td>ELT 262</td>
<td>Measurement and Instrumentation</td>
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<tr>
<td>ELT 264</td>
<td>Mechanical Design</td>
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<td>ELT 265</td>
<td>Applied Fluid Power</td>
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<td>MNG 286</td>
<td>Roof Control and Ventilation</td>
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<td>ELT 290</td>
<td>Selected Topics in Engineering Technology (Topic)</td>
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<td>ELT 295</td>
<td>Independent Problems</td>
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<tr>
<td>ME 205</td>
<td>Introduction to Computer Graphics</td>
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<td>ME 220</td>
<td>Engineering Thermodynamics I</td>
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<tr>
<td>WLD 152</td>
<td>Basic-Welding B</td>
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<td>WLD 100</td>
<td>Oxy-Fuel Systems</td>
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<td>Oxy-Fuel Systems Lab</td>
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<tr>
<td>WLD 110</td>
<td>Cutting Processes</td>
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<td>Cutting Processes Lab</td>
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<td>WLD 120</td>
<td>Shielded Metal Arc-Welding</td>
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<td>WLD 121</td>
<td>Shielded Metal Arc-Welding Fillet Lab</td>
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<tr>
<td>PLB 100</td>
<td>Basic Theory of Plumbing</td>
<td>3</td>
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<td>PLB 105</td>
<td>Plumbing Principles</td>
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<td>PLB 150</td>
<td>Plumbing, Introduction to the Trade</td>
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<tr>
<td>PLB 151</td>
<td>Basic Plumbing Skills</td>
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### Certificate

#### Appalachian Studies - 0501223069
 *(Offered at ASC, SEC)*

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

Subtotal 9

**Communication Track - 050122301** *(Offered at ASC, SEC)*

<table>
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<tr>
<th>Course Code</th>
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<tr>
<td>COM 254</td>
<td>Introduction to Intercultural Communication OR</td>
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Total 12

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

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<th>Course Title</th>
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<tbody>
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<td>ENG 207</td>
<td>Beginning Workshop in Imaginative Writing OR</td>
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Total 12

**Music Track - 050122303** *(Offered at ASC, SEC)*

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<th>Course Title</th>
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<tr>
<td>MU 101</td>
<td>Folk and Traditional Music of the Western Continents</td>
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Total 12

**Science Track - 050122304** *(Offered at ASC, SEC)*

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<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>BIO 120</td>
<td>Human Ecology OR</td>
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Total 16

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

<table>
<thead>
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<th>Course Title</th>
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<tbody>
<tr>
<td>SWK 275</td>
<td>The Family OR</td>
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Total 15

### Applied Engineering Technology

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

Associate in Applied Science

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

General Education (required for all tracks):

ENG 101 Writing I ......................................................... 3
MAT 126 Technical Algebra and Trigonometry OR ........................................ 3
MAT 150 OR higher level Quantitative Reasoning course …………………… 3
PHY 171 Applied Physics OR higher level Physics course …………………… 4
Social/Behavioral Sciences ……………………………………………………… 3
Heritage/Humanities …………………………………………………………… 3
Subtotal 16

Technical Core (required for all tracks):

CIS 100 Introduction to Computers OR demonstrated competency 0-3
AET 110 Introduction to Circuit Analysis OR Electrical course approved by Program Coordinator …………………… 4
AET 140 Industrial Equipment Maintenance ………………………………… 4
BRX 120 Basic Blueprint Reading …………………………………………….. 3
CAD 100 Introduction to Computer Aided Design ………………………….. 3
COM 252 Interpersonal Communications OR ………………………………. 3
COM 181 Basic Public Speaking …………………………………………….. (3)
FPX 100 Fluid Power ………………………………………………………… 3
FPX 101 Fluid Power Lab ……………………………………………………… 3
ISX 101 Introduction to Industrial Safety OR Safety course approved by Program Coordinator …………………… 3
Subtotal 28

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

CAD 201 Advanced 3D Modeling …………………………………………….. 4
CMM 110 Fundamentals of Machine Tool – A ………………………………… 3
CMM 130 Manual Programming …………………………………………….. 3
CMM 132 CAD/CAM/CNC ……………………………………………………… 3
CMM 240 Introduction to 3-D Programming ………………………………… 6
Track Subtotal 19

Track Total 60-63

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

AET 160 Industrial Controls Electronics ………………………………………… 4
AET 268 Rotating Machinery Electrical Motor Controls 1 …………………… 3
AET 269 Rotating Machinery Electrical Motor Controls I Lab ……………… 4
EET 276 Programmable Logic Controllers …………………………………… 2
EET 277 Programmable Logic Controllers Lab ……………………………… 2
ISM 210 Fundamentals of Process Control …………………………………… 4
Track Subtotal 19

Track Total 60-63

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

AET 150 Programmable Logic Controllers …………………………………… 2
AET 160 Programmable Logic Controllers Lab ……………………………… 2
MS 110 Mechatronics Systems Electrical Components …………………… 4
MS 120 Mechatronics Systems Mechanical Components …………………… 4
MS 130 Mechatronics Systems Hydraulic/Pneumatic Components ………… 4
MS 150 Mechatronics Systems Programmable Logic Controllers ………… 4
Track Subtotal 20

Track Total 61-64

Electronics Engineering Track - 150499706
(Offered at MYC, WKC)

AET 150 Advanced Circuit Analysis ………………………………………… 4
AET 160 Industrial Controls Electronics ……………………………………… 4
AET 170 Digital Circuits and Concepts ………………………………………… 4
AET 200 Integrated Circuits …………………………………………………….. 4
AET 220 Modulation Techniques and Applications ………………………….. 4
Track Subtotal 20

Track Total 61-64

PLC Programmer Track - 150499707
(Offered at MYC, WKC)

AET 190 Industrial Computer Programming Concepts …………………… 4
AET 250 PLC Networking ……………………………………………………… 4
AET 260 Robotics and Programmable Controllers ………………………….. 4
AET 270 Advanced PLC Programming ……………………………………… 4
EET 276 Programmable Logic Controllers ………………………………… 2
EET 277 Programmable Logic Controllers Lab …………………………… 2
Track Subtotal 20

Track Total 61-64

Instrumentation Track - 150499708
(Offered at MYC, WKC)

AET 150 Advanced Circuit Analysis ………………………………………… 4
AET 170 Digital Circuits and Concepts ………………………………………… 4
AET 200 Integrated Circuits …………………………………………………….. 4
ISM 102 Fundamentals of Instrumentation …………………………………… 4
ISM 210 Fundamentals of Process Control …………………………………… 4
Track Subtotal 20

Track Total 61-64

Alternative Energy Track - 150499709
(Offered at MYC, WKC)

AET 102 Introduction to Energy, Environment and Society ………………… 4
AET 114 Solar and Wind Energy Generation ………………………………… 4
AET 120 Power Electronics …………………………………………………….. 4
AET 210 Alternative Energy Independent Studies ………………………….. 4
CHE 140 Introductory General Chemistry …………………………………… 3
CHE 145 Introductory General Chemistry Lab ………………………………. 1
Track Subtotal 20

Track Total 61-64

Certificate

Alternative Energy – 1504993099
(Offered at BLC, BSC, MYC, WKC)

AET 102 Introduction to Energy, Environment and Society ………………… 4
AET 110 Introduction to Circuit Analysis OR Electrical course approved by Program Coordinator …………………… 4
AET 114 Solar and Wind Energy Generation ………………………………… 4
CHE 140 Technical Algebra and Trigonometry OR MAT 150 OR higher level Mathematics course …………………… 3
Approved Technical Elective ……………………………………………… 3-5
Total 18-20

Academic Curricula
## 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 shut-down of various system components and units. Offers a choice of AAS degree with chemical/refinery operator, power plant operator, and lineman technology, as well as certificate tracks.

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

### Associate in Applied Science

#### Applied Process Technologies - 4103017029

(Offered at ASC, JFC)

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<th>Course</th>
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<td>AET 130</td>
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<tr>
<td>AET 260</td>
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<td>ISX 101</td>
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<td>MAT 126</td>
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#### General Education Courses

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<td>MAT 126</td>
<td>Technical Algebra &amp; Trigonometry (Recommended) OR MAT 150</td>
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<tr>
<td>MAT 116</td>
<td>Technical Mathematics</td>
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<tr>
<td>CHE 130</td>
<td>Introductory General &amp; Biological Chemistry OR</td>
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<tr>
<td>CHE 140/145</td>
<td>Introduction to General Chemistry with Lab</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
</tr>
<tr>
<td>ECO 101</td>
<td>Contemporary Economic Issues (Recommended)</td>
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<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
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#### Technical Core Courses

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#### Certificate

#### Chemical/Refinery Operator - 4103013039

(Offered at ASC, JFC)

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#### Industrial Worker - 1507013019

(Offered at ASC, JFC, MYC)

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Lineman – 4103013049
(Offered at ASC, MYC)

APT 158 Lineman Technology I ........................................ 3
APT 159 Lineman Technology II Lab .................................. 4
EET 150 Transformers ...................................................... 2
EET 151 Transformers Lab ................................................ 1
APT 258 Lineman Technology II ......................................... 3
APT 259 Lineman Technology II Lab .................................. 4
EES 101 Basic Electronics ................................................. 2
TRU 100 Truck Driving .................................................... 6
Total .......................... 25

Power Plant Operator - 4103013029

SFA 101 OSHA, Health and Environmental Safety ............... 3
COM 252 Introduction to Interpersonal Communication ........ 3
CHE 130 Introductory General & Biological Chemistry OR . 4
CHE 140/145 Introduction to General Chemistry with Lab . (4)
APT 102 Process Fundamentals ........................................... 4
APT 104 Rotating & Reciprocating Equipment ...................... 3
APT 108 Stationary Equipment ......................................... 2
APT 142 Instrumentation .................................................. 4
APT 154 Power Plant Practice .......................................... 6
APT 156 Power Plant Protection ....................................... 2
EES 101 Basic Electronics ................................................. 2
Total .......................... 33

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)

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
ENG 101 Writing I ......................................................... 3
MAT 116 Technical Mathematics ...................................... 3
MAT 150 College Algebra OR .......................................... (3)
Other Quantitative Reasoning course approved by program coordinator .................................................... (3)
Heritage/Humanities ...................................................... 3
Natural Sciences Course .................................................. 3
Social/Behavioral Sciences Course ................................. 3
Digital Literacy ............................................................ 0-3
Total .......................................................... 65-68

**Technical Courses

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

Additional Suggested General Education Courses (Not Required)

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

Academic Curricula

Architectural Technology

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

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

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

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

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

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

Associate in Applied Science

Automotive Technology - 4706047019

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

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

General Education Total Credit Hours: 15

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

Total Technical core credits 33-36

Automotive Technician - 470604701

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

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

Subtotal Credits: 21

Total Credits: 69-72

Automotive Parts/Service Writer Track - 470604702

(Offered at JFC, OWC)

ISX 100 Industrial Safety ................................................................. 3
TQX 110 Total Quality Management ................................................................. 3
B&E 100 Introduction to Business and Economics ................................................................. 1
ACT 101 Fundamentals of Accounting ................................................................. 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

Diploma

Automotive Technician - 470604401

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

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

General Education Total Credit Hours 6

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

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

Subtotal Credits: 35-58

Total Credits: 61-64
Automotive Parts/Service Writer - 4706044029
(Offered at JFC, OWC)

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

Technical or Support Courses:
Digital Literacy course OR demonstrated competency ................................................................. 0-3
ADX 120 Basic Automotive Electricity ......................................................................... 3
ADX 150 Engine Repair ........................................................................................................ 3
ADX 170 Climate Control ..................................................................................................... 3
ADX 260 Electrical Systems ................................................................................................. 3
AUT 110 Brake Systems ...................................................................................................... 3
AUT 130 Manual Transmissions .......................................................................................... 3
AUT 140 Basic Fuel and Ignition Systems ........................................................................... 3
AUT 142 Emission Systems ................................................................................................. 3
AUT 160 Suspension and Steering ..................................................................................... 3
AUT 180 Automatic Transmission/Transaxle ........................................................................ 3
AUT 240 Computer Control Systems and Diagnosis ......................................................... 3
B&I 100 Industrial Safety ..................................................................................................... 3
TQX 110 Total Quality Management ................................................................................... 3
TQX 110 Total Quality Management ................................................................................... 3
TQX 110 Total Quality Management ................................................................................... 3
B&I 100 Introduction to Business and Economics ............................................................... 1
TEC 100 Communication for Business and Industry OR ................................................... 3
CMS 152 Writing for Business and Industry ........................................................................ 3
ACT 101 Fundamentals of Accounting I ................................................................................ 3
Any approved work experience component ................................................................... 1
Technical or Support Courses
Total Credit Hours: 47-50 credits
Total Credits: 53-56 credits

Certificates
Automotive Air Conditioning Mechanic - 4706043019
(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)
ADX 170 Climate Control ..................................................................................................... 3
ADX 171 Climate Control Lab ............................................................................................. 1
Total Credits 4

Automotive Electrician - 4706043039
(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)
ADX 120 Basic Automotive Electricity .................................................................. 3
ADX 121 Basic Automotive Electricity Lab ................................................................. 2
ADX 260 Electrical Systems ............................................................................................... 3
ADX 261 Electrical Systems Lab ....................................................................................... 2
Total Credits 10

Manual Transmission/Drive Train Technician - 4706043059
(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)
AUT 130 Manual Transmissions ......................................................................................... 3
AUT 131 Manual Transmissions Lab ................................................................................... 2
Total Credits 5

Automotive Transmission/Transaxle Technician - 4706043079
(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)
AUT 180 Automatic Transmission/Transaxle ................................................................. 3
AUT 181 Automatic Transmission/Transaxle Lab ............................................................... 2
Total Credits 5

Brake Repairer- 4706043069
(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)
AUT 110 Brake Systems ..................................................................................................... 3
AUT 111 Brake Systems Lab ................................................................................................ 2
Total Credits 5

Engine Repairer - 4706043089
(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)
ADX 150 Engine Repair ..................................................................................................... 3
ADX 151 Engine Repairer .................................................................................................... 2
Total Credits 5

Front End Mechanic - 4706043099
(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)
AUT 160 Suspension and Steering .................................................................................... 3
AUT 161 Suspension and Steering Lab ................................................................................ 2
Total Credits 5

Tune-up Mechanic - 4706043109
(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)
ADX 120 Basic Automotive Electricity .................................................................. 3
ADX 121 Basic Automotive Electricity Lab ................................................................. 2
ADX 260 Electrical Systems ............................................................................................... 3
ADX 261 Electrical Systems Lab ....................................................................................... 2
AUT 140 Basic Fuel and Ignition Systems ................................................................. 3
AUT 141 Basic Fuel and Ignition Systems Lab ............................................................... 2
AUT 142 Emissions Systems ............................................................................................. 3
AUT 143 Emissions Systems Lab ..................................................................................... 2
AUT 240 Computer Control Systems and Diagnosis ......................................................... 3
AUT 241 Computer Control Systems and Diagnosis Lab ................................................. 2
Total Credits 25

Hybrid and Electric Vehicle Technician – 4706043139
ADX 120 Basic Fuel and Ignition Systems ................................................................. 3
ADX 140 Basic Fuel and Ignition Systems Lab ............................................................... 2
ADX 142 Emissions Systems ............................................................................................. 3
ADX 143 Emissions Systems Lab ..................................................................................... 2
ADX 150 Engine Repair ..................................................................................................... 3
ADX 151 Engine Repairer .................................................................................................. 2
ADX 152 Engine Repairer .................................................................................................. 2
ADX 260 Electrical Systems ............................................................................................... 3
ADX 261 Electrical Systems Lab ....................................................................................... 2
ADX 270 Hybrid and Electric Vehicle Technology ......................................................... 3
ADX 275 Hybrid and Electric Vehicle Technology Lab ..................................................... 2
Total Credits 25
# Aviation Maintenance Technology

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

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

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

## Associate in Applied Science

### Aviation Maintenance Technology – 4706087029

(Offered at JFC, SMC)

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<td>ATE 104</td>
<td>Introduction to Aviation Maintenance Technology II</td>
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<tr>
<td>ATE 106</td>
<td>Introduction to Aviation Maintenance Technology III</td>
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<td>ATE 108</td>
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<tr>
<td>ATE 202</td>
<td>Aircraft Structures I</td>
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<td>ATE 206</td>
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**Total Credits 67**

### Certificates

#### Airframe Maintenance Technician - 4706083069

(Offered at JFC, SMC)

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<th>Course Title</th>
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<td>ATE 258</td>
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**Total Credits 37**

#### Introduction to Aviation Electronics – 4706083099

(Offered at JFC, SMC)

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<td>ATE 293</td>
<td>GROL+Radar Exam Prep</td>
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**Total Credits 6**

#### Power Plant Maintenance Technician - 4706083079

(Offered at JFC, SMC)

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<th>Course Title</th>
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<tr>
<td>ATE 100</td>
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<tr>
<td>ATE 102</td>
<td>Introduction to Aviation Maintenance Technology I</td>
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<tr>
<td>ATE 242</td>
<td>Aircraft Powerplants I</td>
<td>3</td>
</tr>
<tr>
<td>ATE 244</td>
<td>Aircraft Powerplants II</td>
<td>3</td>
</tr>
<tr>
<td>ATE 246</td>
<td>Aircraft Powerplants III</td>
<td>3</td>
</tr>
<tr>
<td>ATE 248</td>
<td>Aircraft Powerplants IV</td>
<td>3</td>
</tr>
<tr>
<td>ATE 252</td>
<td>Aircraft Powerplants Systems I</td>
<td>3</td>
</tr>
<tr>
<td>ATE 254</td>
<td>Aircraft Powerplants Systems II</td>
<td>3</td>
</tr>
<tr>
<td>ATE 256</td>
<td>Aircraft Powerplants Systems III</td>
<td>3</td>
</tr>
<tr>
<td>ATE 258</td>
<td>Aircraft Powerplants Systems IV</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits 37**

### General Education:

#### ENG 101 Writing I

Quantitative Reasoning ....................................... 3
Natural Sciences .............................................. 3
Heritage/Humanities ......................................... 3
Social/Behavioral Sciences ................................ 3
**Subtotal** .................................................. 15

#### ATE 100 Aviation Math

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 Powerplants Systems I ........................................................... 3
ATE 254 Aircraft Powerplants Systems II ........................................................... 3
ATE 256 Aircraft Powerplants Systems III ........................................................... 3
ATE 258 Aircraft Powerplants Systems IV ........................................................... 3

**Total Credits 37**

### Diploma

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

(Offered at JFC, SMC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE 100</td>
<td>Aviation Math</td>
<td>1</td>
</tr>
<tr>
<td>ATE 102</td>
<td>Introduction to Aviation Maintenance Technology I</td>
<td>3</td>
</tr>
<tr>
<td>ATE 104</td>
<td>Introduction to Aviation Maintenance Technology II</td>
<td>3</td>
</tr>
<tr>
<td>ATE 106</td>
<td>Introduction to Aviation Maintenance Technology III</td>
<td>3</td>
</tr>
<tr>
<td>ATE 108</td>
<td>Introduction to Aviation Maintenance Technology IV</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits 6**
The Biomedical Technology Systems (BTS) program prepares the adult learner to repair, maintain, and manage a wide variety of medical devices, equipment, and systems employed in various healthcare sectors. The learner will gain a holistic perspective of the life-cycle duties and skills needed to assure that medical devices meet safety and performance expectations. The program addresses both general and specialized medical technologies along with how these technologies are interfaced with health IT networks. Upon completion of the program, the graduate will be prepared for immediate employment as an entry-level biomedical equipment technician professional and may pursue employment with a number of employers including, but not limited to: hospitals, clinics, home health equipment companies, third-party medical equipment service providers, and medical equipment manufacturers.

Associate in Applied Science

Biomedical Technology Systems - 1504017029

(Offered at MDC)

General Education Courses

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

Technical Support Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFT 1001</td>
<td>Basic Electrical Knowledge</td>
</tr>
<tr>
<td>AFT 1101</td>
<td>Electrical Power Distribution</td>
</tr>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory</td>
</tr>
<tr>
<td>CIT 105</td>
<td>Introduction to Computing</td>
</tr>
<tr>
<td>CIT 111</td>
<td>Computer Hardware and Software</td>
</tr>
<tr>
<td>CIT 160</td>
<td>Introduction to Networking Concepts</td>
</tr>
<tr>
<td>CIT 180</td>
<td>Security Fundamentals</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>21</strong></td>
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</table>

Technical Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTS 100</td>
<td>Biomedical Technology Systems: A Career Perspective</td>
</tr>
<tr>
<td>BTS 110</td>
<td>Environmental Risks and Precautionary Measures for the BTS Professional</td>
</tr>
<tr>
<td>BTS 120</td>
<td>Essentials of Biomedical Electronics I</td>
</tr>
<tr>
<td>BTS 125</td>
<td>Essentials of Biomedical Electronics II</td>
</tr>
<tr>
<td>BTS 130</td>
<td>Medical Equipment Management I</td>
</tr>
<tr>
<td>BTS 140</td>
<td>Science Principles Employed in Medical Technologies</td>
</tr>
<tr>
<td>BTS 200</td>
<td>Patient Care Support and Management Systems</td>
</tr>
<tr>
<td>BTS 210</td>
<td>Diagnostic Medical Equipment and Non-Radiographic Imaging Modalities</td>
</tr>
<tr>
<td>BTS 220</td>
<td>Laboratory Devices, Instruments, and Analyzers</td>
</tr>
<tr>
<td>BTS 230</td>
<td>Medical Equipment Management II</td>
</tr>
<tr>
<td>BTS 250</td>
<td>Introduction to Medical-Based IT Networks and Standards</td>
</tr>
<tr>
<td>BTS 260</td>
<td>Radiographic Imaging Modalities</td>
</tr>
<tr>
<td>BTS 270</td>
<td>Therapeutic Equipment Modalities I</td>
</tr>
<tr>
<td>BTS 275</td>
<td>Therapeutic Equipment Modalities II</td>
</tr>
<tr>
<td>BTS 280</td>
<td>General Care Monitoring and Instrumentation</td>
</tr>
<tr>
<td>BTS 285</td>
<td>Critical Care Monitoring and Instrumentation</td>
</tr>
<tr>
<td>BTS 290</td>
<td>Clinical Experience in Biomedical Technology Systems</td>
</tr>
<tr>
<td><strong>Professional Subtotal</strong></td>
<td><strong>31</strong></td>
</tr>
</tbody>
</table>

Credit Hours: 68

Elective

<table>
<thead>
<tr>
<th>Course</th>
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</tr>
</thead>
<tbody>
<tr>
<td>BTS 299</td>
<td>Selected Topics in Biomedical Technology</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>68</strong></td>
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</tbody>
</table>

Certificate

Foundations in Biomedical Technology Networking Systems - 1504013029

(Offered at MDC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 105</td>
<td>Introduction to Computing</td>
</tr>
<tr>
<td>CIT 111</td>
<td>Computer Hardware and Software</td>
</tr>
<tr>
<td>CIT 160</td>
<td>Introduction to Networking Concepts</td>
</tr>
<tr>
<td>CIT 180</td>
<td>Security Fundamentals</td>
</tr>
<tr>
<td>BTS 250</td>
<td>Introduction to Medical-Based IT Networks and Standards</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

Biotechnology Laboratory Technician

The Biotechnology Laboratory Technician AAS program provides the basic knowledge and laboratory skills needed to prepare for entry-level jobs in university, government, pharmaceutical, or industrial biotechnology laboratories. Graduates of the program will be able to seek employment in biotechnology laboratories such as biomanufacturing, quality control, quality assurance, research and development, and regulatory bioscience. The program has been designed to develop skills in basic analysis of biological molecules (DNA and proteins), use of 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 Biotechnology certificate introduces hands-on laboratory training needed for entry-level employment in a biotechnological laboratory.

The Advanced Biotechnology 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 Biotechnology 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 com-
panies, including federal, state, or local agencies, university or privately owned biotechnology research labs, or nature resource management organizations. The Environmental Biotechnician Certificate requires successful completion of 21 hours of coursework, which may be earned in 2 semesters, provided all the prerequisites have been met for the required coursework. This is a joint certificate in the Biotechnology Laboratory Technician and Environmental Science Technician programs.

**Associate in Applied Science**

Biotechnology Laboratory Technician – 4101017029

*(Offered at BLC)*

**Required General Education Courses**

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

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

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

2Assessment 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 4 ........................................ 0-3

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

4Digital literacy must be demonstrated either by competency exam or by successfully completing a digital literacy course.

**Required Technical Elective Courses**

Choose at least 28 credit hours:

- BTN 106 Fundamentals of Scientific Communication .. 3
- BTN 110 Nucleic Acids ........................................... 4
- BTN 115 Biomanufacturing ...................................... 4
- BTN 120 Biofuels ..................................................... 4
- BTN 125 Bioinformatics I ......................................... 2
- BTN 126 Bioinformatics II ......................................... 2
- BTN 160 Introduction to Agricultural Biotechnology .. 4
- BTN 210 Cell Culture and Function ............................ 4
- BTN 220 Immunological Methods ............................ 4
- BTN 225 Protein Bioseparation Methods .................... 4
- BTN 295 Independent Investigation in Biotechnology 1 OR ........................................ 1-3
- BTN 298 Biotechnology Learning Laboratory 4 OR .......................... (1-8)
- COE 199 Cooperative Education 5 ............................. (1-3)

Or course approved by the program coordinator.

**Subtotal: Technical Elective Courses** 28

5Students are strongly encouraged to gain hands-on experience by enrolling in BTN 295, BTN 298 or COE 199, to reinforce technical skills learned in the classroom.

**Technical Support Courses**

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

**Subtotal: Technical Support Courses** 4

**Total** 60 – 64

**Certificate**

Biotechnology Laboratory Assistant - 4101013040

*(Offered at BLC)*

- BTN 100 Contextual Science with Laboratory 3 .......................... 4
- BTN 103 Contextual Laboratory Language 4 .................................. 3
- BTN 104 Contextual Laboratory Calculations 4 ............................. 3
- BTN 101 Introduction to Biotechnology ........................................ 1
- BTN 106 Fundamentals of Scientific Communications .................. 3
- Digital Literacy Course ..................................................... 3

**Total** 17

3BTN 100, BTN 103, and BTN 104 must be taken as a cohort.

Basic Biotechnician- 4101013020

*(Offered at BLC)*

- BTN 101 Introduction to Biotechnology ............................. 1
- BTN 105 Applied Biotechnology Laboratory Calculations ............. 3
- BTN 201 Biotechnology Techniques I .................................... 4
- BTN 202 Biotechnology Techniques II .................................... 4
- Science 6 ..................................................... 4-5

**Total** 16-17

6Science requirement may be satisfied by:
- Completion of the Biotechnology Laboratory Assistant Certificate, or
- Completion of BTN 100, BTN 103, and BTN 104 or cohort with a “C” or better, or
- One semester of college biology with lab, or
- One semester of college chemistry with lab, or
- Course approved by the program coordinator.

Advanced Biotechnician - 4101013050

*(Offered at BLC)*

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

Or course approved by the program coordinator ........................ (4-5)

**Total** 27

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

**Prerequisites:**

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

Bioinformatics– 4101013060

*(Offered at BLC)*

- BTN 101 Introduction to Biotechnology ............................. 1
- BTN 105 Applied Biotechnology Laboratory Calculations ............. 3
- BTN 125 Bioinformatics I .................................................. 2
- BTN 126 Bioinformatics II .................................................. 2
- BTN 201 Biotechnology Techniques I .................................... 4
- BTN 202 Biotechnology Techniques II .................................... 4
Environmental Biotechnician – 4101013070

(Offered at MYC, OWC)

BTN 101 Introduction to Biotechnology ............................. 1
BTN 201 Biotechnology Techniques I ............................... 4
BTN 202 Biotechnology Techniques II .............................. 4
CHE 170 General College Chemistry I ............................... 3
CHE 175 General College Chemistry Laboratory I .............. 1
EST 150 Introductory Ecology ........................................ 4
EST 170 Environmental Sampling Laboratory .................... 2
EST 260 Environmental Methods and Analysis Lab ............. 2
Total 28-29

Broadcast Television Production

The Broadcast Television Production Certificate program provides students with a hands-on introduction to the practice of video production and a comprehensive understanding of professional broadcasting in the United States. The students will be required to read, write, and reflect about concepts such as the role of the media in our society, history of broadcasting in the United States, and different job positions available in the field of broadcasting. Students will also learn all aspects of the television production process from conception to the completed program. Students will develop skills in a range of areas including script preparation, camera operation, directing, lighting, and editing. In addition to an understanding of the elements of television production, graduates will have a greater understanding of the collaborative process through creative problem solving, and critical thinking. Students will need to achieve a “C” or better in each class to remain in the program.

Certificate

Broadcast Television Production – 1001053189

(Offered at MYC, OWC)

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

Building Controls Technician

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

Building Controls Technician – 4604013099

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

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

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

Business Studies

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

Administrative Office Technology

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

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

Associate in Applied Science

Administrative Office Technology – 5204027039

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

General Education:

ENG 101 Writing I ................................................... 3
MAT 105 Business Mathematics OR ............................. 3
MAT 110 Applied Mathematics OR .............................. (3)
Higher Level Quantitative Reasoning Course ................ 3
Heritage/Humanities ................................................ 3
Oral Communications Course .................................. 3
Natural Sciences Course .......................................... 3-4
Social/Behavioral Sciences Course* ......................... 3
General Education Credit Hours ............................... 18-19
Technical Core
OST 105 Introduction to Information Systems .............................................. 3
OST 215 Office Procedures .......................................................... 3
OST 110 Document Formatting and Word Processing .................................. 3
OST 160 Records and Database Management ........................................... 3
OST 210 Advanced Word Processing Application ....................................... 3
OST 240 Software Integration .......................................................... 3
OST 235 Business Communications Technology ......................................... 3
OST 275 Office Management ................................................................... 3

Technical Core Credit Hours 24

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

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

Available Completely Online

ACT 101 Fundamentals of Accounting I OR ................................................................. 3
ACT 225 Introduction to Desktop Publishing ....................................................... 3
OST 295 Administrative Office Technology Internship OR ................................... 3
COE 199 Cooperative Education ....................................................................... (3)

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

BAS 160 Introduction to Business ................................................................. 3
ENG 102 Writing II ......................................................................................... 3
OST 108 Editing Skills for the Office Professional ........................................... 3
OST 105 Introduction to Information Systems ................................................. 3
OST 160 Records and Database Management ................................................. 3
OST 210 Advanced Word Processing Application .......................................... 3
OST 225 Introduction to Desktop Publishing .................................................... 3
OST 235 Business Communications Technology ........................................... 3

Total Administrative Track Credit Hour 18

Total Credit Hours OST AAS Administrative Track 60-61

Desktop Publishing Track - 520402704
(Offered at BLC)

Available Completely Online

OST 130 Typography ......................................................................................... 3
OST 215 Office Procedures ................................................................................ 3
OST 225 Introduction to Desktop Publishing ..................................................... 3
OST 250 Advanced Desktop Publishing ............................................................ 3
OST 255 Introduction to Business Graphics ....................................................... 3
OST 272 Presentation Graphics ......................................................................... 3
OST 275 Administrative Office Simulation OR .................................................. 3
OST 295 Administrative Office Technology Internship OR ............................... 3
COE 199 Cooperative Education ....................................................................... (2-3)

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

ACT 101 Fundamentals of Accounting I OR ................................................................. 3
ACT 225 Introduction to Desktop Publishing ....................................................... 3
ACT 279 Computerized Accounting Systems .................................................... 3
OST 295 Administrative Office Technology Internship OR ................................... 3
COE 199 Cooperative Education ....................................................................... (3)

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

BAS 160 Introduction to Business ................................................................. 3
BAS 215 Office Procedures ................................................................................ 3
ENG 102 Writing II ......................................................................................... 3
ENG 101 Writing I ............................................................................................ 3
OST 105 Introduction to Information Systems ................................................. 3
OST 160 Records and Database Management ................................................. 3
OST 210 Advanced Word Processing Application .......................................... 3
OST 215 Office Procedures ................................................................................ 3
OST 225 Introduction to Desktop Publishing .................................................... 3
OST 235 Business Communications Technology ........................................... 3
OST 240 Software Integration ........................................................................... 3
OST 295 Administrative Office Technology Internship OR ................................... 3
COE 199 Cooperative Education ....................................................................... (3)

Total Technical Hours 35-36

Total Credit Hours 60-61

Legal Administrative Track - 520402705
(Offered at BLC)

ACT 101 Fundamentals of Accounting I OR ................................................................. 3
ACT 225 Introduction to Desktop Publishing ....................................................... 3
OST 109 Legal Terminology ................................................................................. 3
OST 221 Legal Office Simulations ....................................................................... 3
MIT 103 Medical Office Terminology OR .......................................................... 3
CLA 131 Medical Terminology from Greek and Latin OR ................................... (3)

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, SKY)

Available Completely Online

General Education
OST 108 Editing Skills for the Office Professional OR ........................................... 3
ENG 101 Writing I ............................................................................................ 3
ENG 103 Business Calculations for the Office Professional OR .......................... 3
MAT 105 Business Mathematics OR ............................................................... (3)

Total General Education 6

Technical Courses
OST 105 Introduction to Information Systems ................................................. 3
ACT 101 Fundamentals of Accounting I OR ................................................................. 3
ACT 110 Document Formatting and Word Processing ...................................... 3
OST 160 Records and Database Management ................................................. 3
OST 210 Advanced Word Processing Application .......................................... 3
OST 215 Office Procedures ................................................................................ 3
OST 225 Introduction to Desktop Publishing .................................................... 3
OST 235 Business Communications Technology ........................................... 3
OST 240 Software Integration ........................................................................... 3
OST 295 Administrative Office Technology Internship OR ................................... 3
COE 199 Cooperative Education ....................................................................... (3)

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

BAS 160 Introduction to Business ................................................................. 3
BAS 120 Personal Finance ................................................................................ 3
ENG 102 Writing II ......................................................................................... 3
ENG 101 Writing I ............................................................................................ 3
OST 105 Introduction to Information Systems ................................................. 3
OST 160 Records and Database Management ................................................. 3
OST 210 Advanced Word Processing Application .......................................... 3
OST 215 Office Procedures ................................................................................ 3
OST 225 Introduction to Desktop Publishing .................................................... 3
OST 235 Business Communications Technology ........................................... 3
OST 240 Software Integration ........................................................................... 3

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

OST 112 Financial Management ........................................................................ 3
BAS 160 Introduction to Business ................................................................. 3
OST 225 Introduction to Desktop Publishing .................................................... 3
BAS 120 Personal Finance ................................................................................ 3
OST 255 Introduction to Business Graphics ..................................................... 3
OST 150 Transcription and Office Technology ................................................. 3
OST 108 Editing Skills for the Office Professional ........................................... 3
OST 272 Presentation Graphics ......................................................................... 3
OST 250 Advanced Desktop Publishing ........................................................... 3

Total Technical Hours 35-36

Total Credit Hours 41-42

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

Technical Courses
OST 105 Introduction to Information Systems ………………………………………… 3
OST 110 Document Formatting and Word Processing ………………………………… 3
OST 130 Typography ………………………………………………………………… 3
OST 160 Records and Database Management ………………………………………… 3
OST 210 Advanced Word Processing Applications …………………………………… 3
OST 215 Office Procedures ……………………………………………………………… 3
OST 225 Introduction to Desktop Publishing ………………………………………… 3
OST 235 Business Communication Technology ……………………………………… 3
OST 240 Software Integration ………………………………………………………… 3
OST 250 Advanced Desktop Publishing ……………………………………………… 3
OST 255 Introduction to Business Graphics ………………………………………….. 3
OST 272 Presentation Graphics ………………………………………………………… 3
OST 295 Administrative Office Technology Internship OR …………………………… 3
COE 199 Cooperative Education ……………………………………………………… 2-3
Total Technical Hours 36-39
Total Credit Hours 44-45

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

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

Technical Courses
OST 105 Introduction to Information Systems ………………………………………… 3
ACT 101 Fundamentals of Accounting I OR …………………………………………… 3
ACT 102 Fundamentals of Accounting II OR …………………………………………… 3
ACT 279 Computerized Accounting Systems ………………………………………… 3
OST 110 Document Formatting and Word Processing ………………………………… 3
OST 160 Records and Database Management ………………………………………… 3
OST 215 Office Procedures ……………………………………………………………… 3
OST 240 Software Integration ………………………………………………………… 3
OST 295 Administrative Office Technology Internship OR …………………………… 3
COE 199 Cooperative Education ……………………………………………………… 2-3
Choose two courses (6 hours) from the following:
BAS 160 Introduction to Business ……………………………………………………… 3
ENG 102 Writing II ……………………………………………………………………… 3
BAS 120 Personal Finance ……………………………………………………………… 3
OST 255 Introduction to Business Graphics ………………………………………….. 3
OST 150 Transcription and Office Technology ………………………………………… 3
OST 272 Presentation Graphics ………………………………………………………… 3
OST 250 Advanced Desktop Publishing ……………………………………………… 3
Total Technical Hours 32-33
Total Credit Hours 38-39

Legal Office Assistant - 5204024059
(Submitted at BLC)

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

Technical Courses
OST 105 Introduction to Information Systems ………………………………………… 3
ACT 101 Fundamentals of Accounting I OR …………………………………………… 3
ACT 102 Fundamentals of Accounting II OR …………………………………………… 3
ACT 279 Computerized Accounting Systems ………………………………………… 3
OST 110 Document Formatting and Word Processing ………………………………… 3
OST 160 Records and Database Management ………………………………………… 3
OST 215 Office Procedures ……………………………………………………………… 3
OST 240 Software Integration ………………………………………………………… 3
OST 295 Administrative Office Technology Internship OR …………………………… 3
COE 199 Cooperative Education ……………………………………………………… 3
Choose one course (3 hours) from the following:
BAS 160 Introduction to Business ……………………………………………………… 3
ENG 102 Writing II ……………………………………………………………………… 3
BAS 120 Personal Finance ……………………………………………………………… 3
OST 255 Introduction to Business Graphics ………………………………………….. 3
OST 150 Transcription and Office Technology ………………………………………… 3
OST 272 Presentation Graphics ………………………………………………………… 3
OST 250 Advanced Desktop Publishing ……………………………………………… 3
Total Technical Hours 36
Total Credit Hours 42

Office Assistant - 5204024039
(Submitted at BLC, BSC, ELC, JFC, MYC, SKY)
Available Completely Online

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

Technical Courses
OST 105 Introduction to Information Systems ………………………………………… 3
OST 110 Document Formatting and Word Processing ………………………………… 3
OST 160 Records and Database Management ………………………………………… 3
OST 210 Advanced Word Processing Applications …………………………………… 3
OST 215 Office Procedures ……………………………………………………………… 3
OST 235 Business Communications Technology …………………………………… 3
OST 240 Software Integration ………………………………………………………… 3
OST 295 Administrative Office Technology Internship OR …………………………… 3
COE 199 Cooperative Education ……………………………………………………… 3
Choose two courses (6 hours) from the following:
BAS 160 Introduction to Business ……………………………………………………… 3
ENG 102 Writing II ……………………………………………………………………… 3
BAS 120 Personal Finance ……………………………………………………………… 3
OST 255 Introduction to Business Graphics ………………………………………….. 3
OST 150 Transcription and Office Technology ………………………………………… 3
OST 272 Presentation Graphics ………………………………………………………… 3
OST 250 Advanced Desktop Publishing ……………………………………………… 3
Total Technical Hours 30
Total Credit Hours 36
Certificates

Administrative - 5204023039
(Offers at BLC, BSC, HPC, JFC, MYC, OWC, SKY)
Available Completely Online

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<th>Description</th>
<th>Credits</th>
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<td>OST 108</td>
<td>Editing Skills for the Office Professional OR</td>
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<tr>
<td>ENG 101</td>
<td>Writing I OR</td>
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<td>ACT 101</td>
<td>Fundamentals of Accounting I OR</td>
<td>3</td>
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<td>OST 213</td>
<td>Business Calculations for the Office Professional OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 105</td>
<td>Business Mathematics OR</td>
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<tr>
<td>OST 110</td>
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<td>OST 215</td>
<td>Office Procedures</td>
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<td>OST 240</td>
<td>Software Integration</td>
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<td>OST 235</td>
<td>Business Communications Technology</td>
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<tr>
<td>OST 160</td>
<td>Records and Database Management</td>
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<tr>
<td>ACT 101</td>
<td>Fundamental of Accounting I OR</td>
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<tr>
<td>OST 245</td>
<td>Higher level Accounting Course</td>
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<td>OST 150</td>
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Basic Business Presentation - 5204023119
(Offers at BLC)
Available Completely Online

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<td>OST 108</td>
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<tr>
<td>ENG 101</td>
<td>Writing I OR</td>
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<td>OST 225</td>
<td>Introduction to Desktop Publishing</td>
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<td>OST 255</td>
<td>Introduction to Business Graphics</td>
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<td>OST 272</td>
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Data Entry Operator - 5204023079
(Offers at BLC, BSC, ELC, HEC, HPC, JFC, MYC, OWC, SKY, WKC)
Available Completely Online

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<thead>
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<th>Course</th>
<th>Description</th>
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<td>OST 105</td>
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<tr>
<td>OST 110</td>
<td>Document Formatting and Word Processing</td>
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<td><strong>Total Credit Hours</strong></td>
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Desktop Publishing - 5204023099
(Offers at BLC, BSC)
Available Completely Online

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<td>Business Calculations for the Office Professional OR</td>
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<tr>
<td>MAT 105</td>
<td>Business Mathematics OR</td>
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<td>Higher Level Quantitative Reasoning Course</td>
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<td>OST 110</td>
<td>Document Formatting and Word Processing</td>
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<td>OST 235</td>
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<td>OST 225</td>
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Financial Assistant Clerk - 5204023129
(Offers at BLC, BSC, JFC, OWC, SKY)
Available Completely Online

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<td>OST 105</td>
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<td>ACT 101</td>
<td>Fundamentals of Accounting I OR</td>
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<tr>
<td>OST 108</td>
<td>Editing Skills for the Office Professional OR</td>
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<tr>
<td>ENG 101</td>
<td>Writing I OR</td>
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<tr>
<td>OST 110</td>
<td>Document Formatting and Word Processing</td>
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<td>OST 160</td>
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Financial Assistant Trainee - 5204023139
(Offers at BLC, BSC, HPC, JFC, OWC, SKY)
Available Completely Online

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<td>ACT 101</td>
<td>Fundamentals of Accounting I OR</td>
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<td>OST 110</td>
<td>Higher Level Accounting Course</td>
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<td>OST 213</td>
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Financial Record Keeper - 5204023069
(Offers at BLC, BSC, JFC, OWC, SKY)
Available Completely Online

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<td>ACT 101</td>
<td>Fundamentals of Accounting I OR</td>
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<td>ENG 101</td>
<td>Writing I OR</td>
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<td>OST 110</td>
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<td>OST 162</td>
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<td><strong>Total Credit Hours</strong></td>
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Integrated Office Skills - 5204023059
(Offers at BLC, BSC, ELC, HPC, JFC, MYC, OWC, SKY, WKC)
Available Completely Online

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<th>Description</th>
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<td>OST 108</td>
<td>Editing Skills for the Office Professional OR</td>
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<td>Writing I OR</td>
<td></td>
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<tr>
<td>OST 110</td>
<td>Document Formatting and Word Processing</td>
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<td>OST 160</td>
<td>Records and Database Management</td>
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<td>OST 210</td>
<td>Advanced Word Processing Applications</td>
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<td>OST 215</td>
<td>Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>OST 240</td>
<td>Software Integration</td>
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Legal Receptionist - 5204023149
(Offers at BLC, WKC)

<table>
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<td>OST 105</td>
<td>Introduction to Information Systems</td>
<td>3</td>
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<tr>
<td>OST 108</td>
<td>Editing Skills for the Office Professional OR</td>
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<tr>
<td>ENG 101</td>
<td>Writing I OR</td>
<td></td>
</tr>
<tr>
<td>OST 110</td>
<td>Document Formatting and Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>OST 160</td>
<td>Records and Database Management</td>
<td>3</td>
</tr>
<tr>
<td>OST 109</td>
<td>Legal Terminology</td>
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<td><strong>Total Credit Hours</strong></td>
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Receptionist - 5204023089
(Offers at BLC, BSC, ELC, HPC, JFC, MYC, OWC, SKY, WKC)
Available Completely Online

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
<td>3</td>
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<tr>
<td>OST 108</td>
<td>Editing Skills for the Office Professional OR</td>
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</tr>
<tr>
<td>ENG 101</td>
<td>Writing I OR</td>
<td></td>
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<tr>
<td>OST 160</td>
<td>Records and Database Management</td>
<td>3</td>
</tr>
<tr>
<td>OST 110</td>
<td>Document Formatting and Word Processing</td>
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<tr>
<td><strong>Total Credit Hours</strong></td>
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<td><strong>12</strong></td>
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</tbody>
</table>
Business Administration Systems


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

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

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

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

The Finance Track / Certificate leads to careers in the financial services industry, government lending agencies, and credit companies.

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

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


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

The Marketing and Retailing Track prepares for careers in sales, merchandise management, buying, department supervising, or retail management.

The Office Systems Track / Diploma / Certificate prepares the student with a broad base of knowledge and skills needed for a variety of positions in an office.

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

The Telecommunication Systems Management Track / Certificate leads to careers in the management and operation of television, radio, teleconferencing facilities, and information systems.

The Turf Grass / Landscaping Management Track / Certificate prepares the student for careers in turf grass management and landscaping operations.

Other Diplomas and Certificates

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 Basic and Advanced Business Administration Certificates are designed to be building blocks to complete the Associate in Applied Science Degree, Business Administration Core courses.

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

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

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

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

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

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

The Operations Management Certificate provides students with the knowledge and skills needed to effectively function as first-line supervisors in an operations environment whether in distribution, services, or manufacturing. 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 Quality Management Certificate prepares the student to analyze and implement systems for continuous improvement of functions and processes in production or service organizations.

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 Systems - 5202017129

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

Required:

- BAS 120 Personal Finance .......................................................... 3
- BAS 160 Introduction to Business .................................................. 3
- CIT 105 Introduction to Computers OR ......................................... 3
- CIT 130 Productivity Software OR ............................................. 3
- ECO 101 Contemporary Economic Issues OR ......................... (3)
- ECO 201 Principles of Microeconomics ........................................ (3)
- ECO 202 Principles of Macroeconomics ....................................... (3)
- MAT 105 Business Mathematics OR ........................................... 3
- MAT 110 Applied Mathematics OR ............................................. 3
- MAT 150 College Algebra OR Higher Quantitative Reasoning . . (3)
- Natural Sciences .......................................................................................... 3

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

Technical Courses:

- CIT 105 Introduction to Computers OR ......................................... 3
- CIT 130 Productivity Software OR ............................................. 3
- ENG 102 Writing I .................................................................................. 3
- ENG 105 Introduction to Information Systems .............................. (3)
- OST 235 Business Communications Technology ..................... (3)
- OST 240 Software Integration ............................................................. 3
- BAS 160 Introduction to Business ..................................................... 3
- BAS 250 Business Employability Seminar ...................................... 1
- BAS 267 Introduction to Business Law ............................................. 3
- BAS 282 Principles of Marketing OR ............................................ 3
- MKT 282 Principles of Marketing ..................................................... 3
- BAS 283 Principles of Management OR ....................................... (3)
- MKT 283 Principles of Management ................................................ (3)
- ACC 201 Financial Accounting OR ................................................ 3
- ACT 101 Fundamentals of Accounting I AND ............................. (3)
- ACT 102 Fundamentals of Accounting II ...................................... (3)
- ACC 202 Managerial Accounting .................................................... 3

Technical ...................................................................................................... 28-31

Core Subtotal ................................................................................................. 46-49

Business Administration Systems Tracks

Accounting Track - 520201701

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

Available Completely Online

Required:

- ACT 279 Computerized Accounting Systems .................................. 3
- ACT 281 Individual Taxation ................................................................. 3
- ACT 286 Financial Accounting Topics ............................................... 3

Choose 6 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Business Administration Systems Program Coordinator.

- ACT 196 Payroll Accounting ............................................................... 3
- ACT 277 Managerial Accounting Topics .......................................... 3
- BAS 212 Introduction to Financial Management .................................. 3
- ACT 290 Selected Topics in Accounting (Topic) .............................. 1-3
- ACT 295 Corporate and Partnership Taxation ...................................... 3
- BAS 120 Personal Finance ................................................................. 3
- CIT 234 Advanced Productivity Software ......................................... 3
- CIT 236 Advanced Data Organization ................................................ 3
- COE 199 Cooperative Education: (Business Administration) OR . . 1-3
- BAS 280 Business Internship ............................................................... (1-3)

Subtotal .......................................................................................................... 15

Total Credits .................................................................................................... 61-64

Equine Business Management Track - 520201718

(Offered at BLC, HZC, HEC, OWC)

Required:

- EQS 101 Introduction to the Thoroughbred .................................... 3
- EQS 103 Racehorse Care ................................................................. 1
- EQS 104 Racehorse Care Lab OR .................................................... 3
- EQS 299 Equine Internship ............................................................... (1-9)
- EQS 118 Equine Bloodstock ............................................................. 3
- EQM 120 Introduction to Commercial Breeding Practices .............. 3
- EQS 130 Introduction to the Racing Industry ..................................... 3
- EQS 240 Equine Legal and Business Principles .............................. 3

Subtotal .......................................................................................................... 19

Total Credits .................................................................................................... 64-67

Finance Track - 520201714

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

Required:

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

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

- BAS 120 Personal Finance ................................................................. 3
- BAS 294 Money and Financial Institutions ....................................... 3
- BAS 295 International Finance .......................................................... 3

Subtotal .......................................................................................................... 15

Total Credits .................................................................................................... 61-64

Business Management Track – 520201717

(Offered at BLC, HZC, HEC, OWC)

Note: Students in this track must take ENG 102, MAT 150 or higher quantitative reasoning and ECO 201 or ECO 202 as part of the core.

Required:

- MGT 200 Small Business Management ........................................... 3
- MGT 256 Operations Management .................................................... 3
- MGT 274 Human Resource Management ....................................... 3
- MGT 287 Supervisory Management ................................................... 3
- MGT 284 Applied Management Skills ............................................. 3
- ENG 203 Business Writing ............................................................... 3
- MGT 101 Quality Management Principles ....................................... 3

Choose a total of 3 hours from the following:

- BAS 120 Personal Finance ................................................................. 3
- BAS 250 Business Employability Seminar ...................................... 3
- BAS 267 Introduction to Business Law ............................................. 3
- BAS 282 Principles of Marketing OR ............................................ 3
- BAS 283 Principles of Management OR ....................................... (3)
- MKT 282 Principles of Marketing ..................................................... 3
- MKT 283 Principles of Management ................................................ (3)
- MKT 284 Principles of Management OR ....................................... (3)
- MGT 287 Supervisory Management ................................................... 3
- MGT 288 Self-Management ............................................................... 3
- MGT 295 Principles of Management ............................................... (3)
- MGT 299 Selected Topics in Business Management: (Topic) ........ 1-3
- MGT 299 Selected Topics in Marketing: (Topic) ............................... 1-3
- IMD 275 Workplace Management .................................................... 3
- COE 199 Cooperative Education .................................................... 1-4
- ECO 202 Principles of Macroeconomics ......................................... 3
- ECO 201 Principles of Microeconomics ......................................... 3
- REA 100 Real Estate Principles ......................................................... 3
- REA 120 Real Estate Marketing ........................................................ 3
- MA 123 Elementary Calculus .......................................................... 3
- STA 291 Statistical Methods ............................................................. 3
- PSY 110 General Psychology OR ..................................................... 3
- SOC 101 Introduction to Sociology .................................................... (3)

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

Total Credits .................................................................................................... 64-67
Choose 9 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses (CIT & BAS) as approved by the Business Administration Systems Program Coordinator.

**Hospitality Management Track - 520201703**

*(Offered at BSC, SMC, WKC)*

**Required:**
- HOS 100 Introduction to Hospitality .................................................. 3
- CUL 100 Culinary Arts Profession ......................................................... 2
- HOS 282 Tourism Marketing ................................................................. 3

Choose 9 hours (not duplicated from the core) from the following Advanced Systems Program Coordinator.

**Human Resource Management Track - 520201715**

*(Offered at ELC, MDC, SKY, WKC)*

**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 Technical Courses with no more than 3 credit hours from IFSM courses to count towards graduation:

**Management Track - 520201708**

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

**Available Completely Online**

**Required:**
- BAS 280 Business Internship OR ......................................................... 1-4
- COE 199 Cooperative Education ........................................................... (1-4)
- BAS 284 Applied Management Skills ................................................... 3
- BAS 288 Management, Ethics & Society ................................................ 3
- BAS 290 Management, Ethics & Society ................................................ 3
- BAS 299 Selected Topics in Management: (Track Topic) ......................... 1-3
- ISX 100 Industrial Safety ................................................................. 3
- OST 275 Office Management ............................................................... 3
- QMS 101 Introduction to Quality Systems ............................................. 3
- QMS 202 Performance Management ................................................... 3
- PSY 180 Human Relations ................................................................. 3
- IFM 128 Principles of Informatics ....................................................... 3
- IFM 111 Client-Side Informatics Software ........................................... 3
- IFM 130 Business Data Communications .............................................. 3
- IFM 211 Collaboration Software .......................................................... 3
- IFM 215 Information Systems Analysis ................................................. 3
- IFM 225 Advanced Informatics ............................................................. 3
- IFM 235 Information Systems and Business Intelligence ....................... 3

**Total Credits 64-67**
Marketing and Retailing Track – 520201719
(Offered at BLC, OWC)

Note: Students in this track must take ENG 102, MAT 150 or higher quantitative reasoning and ECO 201 or ECO 202 as part of the core.

Required:
MKT 155 Personal Selling ..............................................3
MKT 290 Advertising and Promotion ..................................3
MKT 291 Retail Management .............................................3
MKT 293 Buying and Merchandising ....................................3
ENG 203 Business Writing ..............................................3

Choose 3 hours from the following:
BAS 120 Personal Finance ..............................................3
MG 200 Small Business Management ..................................3
MG 285 Project Management .............................................3
MG 288 Self Management ................................................3
MKT 299 Selected Topics in Marketing: (Topic) .......................1-3
ECO 202 Principles of Macroeconomics .................................1-4

Subtotal 17-18
Total Credit 64-67

Office Systems Track – 520201705
(Offered at BSC, GTW, HEC, HZC, MDC, MYC, SMC, WKC)
Available Completely Online

Required:
OST 110 Document Formatting and Word Processing ..................3
OST 210 Advanced Word Processing Applications .....................3
OST 215 Office Procedures ..............................................3
OST 220 Administrative Office Simulations ...............................3

Choose 6 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Office Systems Program Coordinator.
OST 150 Transcription and Office Technology .........................3
OST 160 Records and Database Management ..........................3
OST 216 Selected Topics in Office Systems: (Topic) ......................1-3
OST 235 Business Communications Technology ........................3
OST 295 Office Systems Technology Internship OR ......................1-3
COE 199 Cooperative Education: (Business/Technology) OR .........(1-3)
BAS 280 Business Internship ............................................(1-3)
OST 275 Office Management .............................................3

Subtotal 18
Total Credits 64-67

Real Estate Management Track – 520201706
(Offered at BSC, BLC, ELC, WKC)

Required:
REA 100 Real Estate Principles I .........................................3
REA 121 Appraising ................................................................3
REA 225 Real Estate Finance ..............................................3
REA 230 Real Estate Law ....................................................3

Choose 6 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Real Estate Program Coordinator.
REA 120 Real Estate Marketing .............................................3
REA 122 Construction and Blueprints .................................3
REA 200 Real Estate Principles II ........................................3
REA 201 Property Management ...........................................3
REA 202 Real Estate Investments I .......................................3
REA 203 Commercial and Industrial Property .......................3
REA 204 Land Planning and Development ............................3
REA 205 Farm Brokerage .................................................3
REA 212 Real Estate Investments II .......................................3
REA 220 Real Estate Brokerage Management ..........................3
COE 199 Cooperative Education: (Business Administration) ... 1-4
OR
BAS 280 Business Internship ............................................(1-4)

Subtotal 18
Total Credits 66-67

Telecommunication Systems Management Track – 520201709

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

Choose 3-4 hours (not duplicated from the core) from the following Courses. Students may select other courses (JAT, COM, or CMS) as approved by the Business Administration Program Coordinator.
CIS 150 Doing Business on the Internet ................................1
CIS 151 Introduction to Electronic Commerce ........................3
CIS 152 Introduction to Web Page Design ..............................3
CIS 153 Intermediate Web Page Design OR .........................2
BAS 284 Applied Management Skills ...................................3
BAS 287 Supervisory Management .......................................3
BAS 299 Selected Topics in Management: (Track Topic) .......... 1-3
OST 235 Business Communications Technology OR .............3
ENG 203 Business Writing OR ..........................................(3)
JOU 204 Writing for Mass Media .........................................(3)
COE 199 Cooperative Education: (Business Administration) ... 1-4
OR
BAS 280 Business Internship ............................................(1-4)

Subtotal 18-19
Total Credits 64-68

Turf Grass/Landscaping Management Track - 520201707
(Offered at OWC)

Required:
TGM 140 Turf Grass for Golf and Landscaping ........................3
AGR 125 Introduction to Soils & Fertilizers ............................3
TGM 210 Turf Grass Science .............................................3
HRT 130 Landscape Maintenance .........................................3
HRT 131 Landscape Maintenance Lab ....................................2
Choose 3 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Business Administration Systems Program Coordinator.

**General Education:**

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<tbody>
<tr>
<td>ENG 101</td>
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<tr>
<td>ENG 102</td>
<td>Writing II OR</td>
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<tr>
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<td>OST 235</td>
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<td>HRT 104</td>
<td>Herbaceous Plant Identification</td>
<td>4</td>
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<td>HRT 108</td>
<td>Woody Plant Identification</td>
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<tr>
<td>BAS 280</td>
<td>Business Internship</td>
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**Total Credits:** 17

**Diplomas**

**Accounting - 5202014049**

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

**General Education:**

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<td>HRT 104</td>
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**Required Technical:**

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**Total Credits:** 12

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**General Education Subtotal:** 6

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<td>IFM 128</td>
<td>Principles of Informatics</td>
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<td>IFM 170</td>
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<td>CTT 215</td>
<td>Data Warehouse Design</td>
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**Total Credits:** 6

**Required Technical Subtotal:** 18-24

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<tr>
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<td>Introduction to Business</td>
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</table>

**Total Credits:** 39-45

*No course can be used to fulfill more than one requirement.*
Choose 6 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Business Administration Systems Program Coordinator.

**Required Technical:**
- CIT 105 Introduction to Computers OR ........................................... 3
- BAS 160 Introduction to Business ........................................... 3
- BAS 238 Principles of Management ........................................... 3
- BAS 284 Applied Management Skills ........................................... 3
- BAS 287 Supervisory Management ........................................... 3
- ACC 201 Financial Accounting OR ........................................... 3
- ACT 102 Fundamentals of Accounting II .................................... (3)

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:**
- BAS 212 Introduction to Financial Management .......................... 3
- BAS 260 Professional Development and Protocol .......................... 2
- BAS 267 Introduction to Business Law ........................................... 3
- BAS 274 Human Resource Management .................................... 3
- BAS 282 Principles of Marketing ........................................... 3
- BAS 290 Management, Ethics & Society .................................... 3
- OST 275 Office Management ........................................... 3
- ACC 202 Managerial Accounting ........................................... 3
- CIT 130 Productivity Software OR ........................................... 3
- OST 235 Business Communications Technology .......................... 3
- QMS 101 Introduction to Quality Systems .................................... 3

*Courses as approved by the Business Administration Systems Program Coordinator.*

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**Organizational Leadership - 5202014029**

*Offered at ASC, ELC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC*

**Available Completely Online**

**General Education:**

**Area 1 =**
- ENG 101 Writing I OR ........................................... 3
- COM 181 Basic Public Speaking OR ........................................... (3)
- COM 252 Introduction to Interpersonal Communication .............. (3)

**Area 2 =**
- ECO 101 Contemporary Economics OR .................................... 3
- ECO 201 Principles of Microeconomics OR .............................. (3)
- ECO 202 Principles of Macroeconomics .................................... (3)

General Education Subtotal: 6

**Required Technical:**
- CIT 105 Introduction to Computers OR ........................................... 3
- BAS 170 Entrepreneurship ........................................... 3
- BAS 200 Small Business Management .................................... 3
- BAS 212 Introduction to Financial Management ........................................... 3
- BAS 267 Principles of Management ........................................... 3
- ACC 201 Financial Accounting OR ........................................... 3
- ACT 177 Entrepreneurial Accounting OR .................................... 3
- ACT 101 Fundamentals of Accounting I .................................... (3)
- ACT 102 Fundamentals of Accounting II .................................... (3)

Required Technical Subtotal: 24-27

Choose 6 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Business Administration Systems Program Coordinator.

**Required Technical:**
- BAS 212 Introduction to Financial Management ........................................... 3
- BAS 274 Human Resource Management .................................... 3
- BAS 284 Applied Management Skills .................................... 3
- BAS 287 Supervisory Management ........................................... 3
- BAS 288 Personal and Organizational Leadership .......................... 3
- BAS 290 Management, Ethics & Society .................................... 3
- ACT 196 Payroll Accounting ........................................... 3
- ACC 202 Managerial Accounting ........................................... 3
- CIT 130 Productivity Software OR ........................................... 3
- CIT 234 Advanced Productivity Software OR .................................... 3
- CIT 236 Advanced Data Organization .................................... (3)
- OST 240 Software Integration ........................................... (3)
- QMS 101 Introduction to Quality Systems .................................... (3)

Approved Technical Courses: 6

Total Credits: 36-39

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

**Certificates**

**Accounting - 5202013119**

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

**Available Completely Online**

**Required:**
- ACC 201 Financial Accounting OR ........................................... 3
- ACT 101 Fundamentals of Accounting I .................................... (3)
- ACT 102 Fundamentals of Accounting II .................................... (3)
- ACC 202 Managerial Accounting ........................................... 3
Choose 12 hours from the following Technical Courses. Students may select other courses as approved by the Business Administration Systems Program Coordinator.

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<td>Managerial Accounting Topics</td>
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<td>ACT 279</td>
<td>Computerized Accounting Systems</td>
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<td>ACT 281</td>
<td>Individual Taxation</td>
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<td>ACT 286</td>
<td>Financial Accounting Topics</td>
<td>1-3</td>
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<td>ACT 295</td>
<td>Corporate and Partnership Taxation</td>
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<td>BAS 120</td>
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<td>BAS 212</td>
<td>Introduction to Financial Management</td>
<td>3</td>
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<tr>
<td>CIT 234</td>
<td>Advanced Productivity Software</td>
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<td>CIT 236</td>
<td>Advanced Data Organization</td>
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<td>COE 199</td>
<td>Cooperative Education: (Business Administration)</td>
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<td>BAS 280</td>
<td>Business Internship</td>
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Total Credits: 18-21

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Accounting Recordkeeping Specialist - 5202013429

**Required:**

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<th>Course Title</th>
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<tbody>
<tr>
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<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I AND</td>
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<tr>
<td>ACT 196</td>
<td>Payroll Accounting</td>
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<td>ACT 279</td>
<td>Computerized Accounting Systems</td>
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<td>ACT 281</td>
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<tr>
<td>ACT 286</td>
<td>Financial Accounting Topics</td>
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<tr>
<td>CIT 105</td>
<td>Introduction to Computers OR</td>
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<tr>
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<td>Introduction to Information Systems</td>
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Total Credits: 18-21

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Advanced Business Administration - 5202013129

**Available Completely Online**

**Required:**

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<tr>
<td>BAS 282</td>
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<td>Principles of Management</td>
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<tr>
<td>ACT 276</td>
<td>Introduction to Business Law</td>
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<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
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<td>CIT 130</td>
<td>Productivity Software</td>
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Total Credits: 15

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Basic Business Administration - 5202013139

**Available Completely Online**

**Required:**

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<td>Writing I</td>
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<td>CIT 105</td>
<td>Introduction to Computers OR</td>
<td>3</td>
</tr>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
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<td>ECO 101</td>
<td>Contemporary Economic Issues OR</td>
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<td>ECO 201</td>
<td>Principles of Microeconomics OR</td>
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<td>ECO 202</td>
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Total Credits: 15-18

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Business Transfer - 5202013149

**Available Completely Online**

**Required:**

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<td>ACT 101</td>
<td>Fundamentals of Accounting I AND</td>
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<td>ACT 102</td>
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<td>BAS 170</td>
<td>Entrepreneurship</td>
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<td>BAS 282</td>
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<td>BAS 288</td>
<td>Personal and Organizational Leadership</td>
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Total Credits: 15

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Entrepreneurship – 5202013379

**Available Completely Online**

**Required:**

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<td>Introduction to Commercial Breeding</td>
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<td>EQM 140</td>
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<td>Introduction to Business</td>
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<td>Equine Business Management II</td>
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<td>EQM 242</td>
<td>Equine Law</td>
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<td>EQM 246</td>
<td>Current Trends in the Equine Industry</td>
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<td>PSY 110</td>
<td>General Psychology</td>
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<td>MGT 101</td>
<td>Quality Management Principles</td>
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Total Credits: 12-15

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Equine Business Management – 5202013479

**Available Completely Online**

**Required:**

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<td>BAS 212</td>
<td>Introduction to Financial Management</td>
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Choose 9 hours from the following Technical Courses.

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Financial Perspectives - 5202013159

**Available Completely Online**

**Required:**

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<td>Introduction to Business</td>
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<tr>
<td>BAS 120</td>
<td>Personal Finance</td>
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Total Credits: 9-12
General Business - 5202013169
(Offered at ASC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC,WKC)

Available Completely Online

Required:
BAS 160 Introduction to Business................................. 3
CIT 105 Introduction to Computers OR ......................... 3
OST 105 Introduction to Information Systems.................. 3
ACT 101 Fundamentals of Accounting*............................ 3
ECO 101 Contemporary Economic Issues OR .................. 3
ECO 201 Principles of Microeconomics OR .................... 3
ECO 202 Principles of Macroeconomics ......................... 3
Total Credits 12

Hospitality Management - 5202013179
(Offered at BSC, HZC, SEC, SMC,WKC)

Required:
HOS 100 Introduction to Hospitality.......................... 3
CUL 100 Culinary Arts Profession ................................ 2
HOS 282 Tourism Marketing ...................................... 3
Total Credits 17

Choose 9 hours from the following Technical Courses.
Students may select other courses (HOS or CUL) as approved by the Business Administration Systems Program Coordinator.

BAS 200 Small Business Management.......................... 3
BAS 274 Human Resource Management........................ 3
COE 199 Cooperative Education: Business Administration OR 1-3
BAS 280 Business Internship OR ................................ 1-3
BAS 290 Management, Ethics & Society ....................... 1-3
CUL 200 Sanitation & Safety ..................................... 2
CUL 105 Applied Fundamentals of the Culinary Arts Profession 2
CUL 280 Cost & Control .......................................... 3
HOS 160 Security for the Hospitality Industry ................ 3
HOS 200 Cultural Heritage Tourism ............................. 3
HOS 210 Front Office Operations & Management ............. 3
HOS 220 Housekeeping & Maintenance Management ...... 3
CUL 270 Human Relations Management ....................... 3
Total Credits 17

Human Resource Management - 5202013359
(Offered at ASC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC,WKC)

Required:
BAS 274 Human Resource Management........................ 3
BAS 287 Supervisory Management ................................ 3
ACT 196 Payroll Accounting ...................................... 3
Total Credits 9

Choose 9 hours from the following Technical Courses.
Students may select other courses as approved by the Business Administration Systems Program Coordinator.

BAS 280 Business Internship OR ................................ 1-3
COE 199 Cooperative Education ................................ (1-3)
ISX 101 Introduction to Industrial Safety ....................... 3
BAS 284 Applied Management Skills ........................... 3
BAS 288 Person & Organizational Leadership ................ 3
BAS 290 Management, Ethics & Society ....................... 3
BAS 299 Selected Topics in Management: (Track Topic) .... 1-3
OST 275 Office Management ..................................... 3
QMS 101 Introduction to Quality Systems ..................... 3
QMS 202 Performance Management ............................ 3
PSY 180 Human Relations ........................................ 3
Total Credits 18

Industrial Supervisor - 5202013339
(Offered at ASC, HPC, SEC)

General Education:
ENG 101 Writing I ............................................... 3
MAT 150 College Algebra ......................................... 3
COM 181 Basic Public Speaking OR ............................ 3
COM 252 Interpersonal Communications OR ................ 3
PSY 110 General Psychology ..................................... 3
Total Credits 12

Required Technical:
BAS 287 Supervisory Management .............................. 3
INDT 120 Industrial Safety ....................................... 3
INDT 233 Statistical Process Control ......................... 3
BAS 274 Human Resource Management ...................... 3
OST 105 Introduction to Computers OR ....................... 3
OST 105 Introduction to Information Systems ............... 3
Total Credits 30

Choose 6 hours from the approved Technical Courses:

BAS 160 Introduction to Business .............................. 3
INDT 220 Introduction to Industrial Psychology ............. 3
ENV 101 Fundamentals of Environment Science ............ 3
ENV 132 Environment Management ........................... 2
INDT 250 Team Dynamics & Problem – Solving ............ 3
Total Credits 30

Informatics Fundamentals - 5202013449
(Offered at HEC, MYC, SEC, SMC)

IFM 128 Principles of Informatics .............................. 3
CIT 170 Database Design Fundamentals ...................... 3
IFM 215 Information Systems Analysis ....................... 3
Total Credits 9

Informatics Business Analyst – 5202013459
(Offered at HEC, MYC, SEC, SMC)

Required: Choose 6 hours from the following Courses.

IFM 130 Business Data Communications ..................... 3
IFM 235 Information Systems and Business Intelligence .... 3
IFM 111 Client-Side Informatics Software .................... 3
Total Credits 6

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

Available Completely Online

Required:
BAS 288 Personal and Organizational Leadership .......... 3
BAS 160 Introduction to Business ............................. 3
ECO 101 Contemporary Economic Issues OR .............. 3
ECO 201 Principles of Microeconomics OR ................ 3
ECO 202 Principles of Macroeconomics ....................... 3
COM 181 Basic Public Speaking OR ........................... 3
COM 252 Introduction to Interpersonal Communication .... 3
Total Credits 12

Management - 5202013209
(Offered at ASC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC,WKC)

Available Completely Online

Required:
BAS 283 Principles of Management ........................... 3
BAS 212 Introduction to Financial Management OR ....... 3
QMS 101 Introduction to Quality Systems OR ................ (3)
Second Quantitative Reasoning Course from General Education not duplicative of core math .................. 3
BAS 284 Applied Management Skills .......................... 3
Choose 6 hours from the following Technical Courses.
Students may select other courses as approved by the Business Administration Systems Program Coordinator:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT 277</td>
<td>Managerial Accounting Topics</td>
<td>3</td>
</tr>
<tr>
<td>BAS 200</td>
<td>Small Business Management</td>
<td></td>
</tr>
<tr>
<td>BAS 256</td>
<td>International Business</td>
<td>3</td>
</tr>
<tr>
<td>BAS 260</td>
<td>Professional Development &amp; Protocol</td>
<td>2</td>
</tr>
<tr>
<td>BAS 274</td>
<td>Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 285</td>
<td>Problems in Marketing &amp; Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 287</td>
<td>Supervisory Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 288</td>
<td>Personal &amp; Organizational Leadership</td>
<td>3</td>
</tr>
<tr>
<td>BAS 289</td>
<td>Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 290</td>
<td>Management, Ethics &amp; Society</td>
<td>3</td>
</tr>
<tr>
<td>BAS 291</td>
<td>Retail Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 299</td>
<td>Selected Topics Management: (Track Topic)</td>
<td>1-3</td>
</tr>
<tr>
<td>OST 275</td>
<td>Office Management</td>
<td></td>
</tr>
<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
</tr>
<tr>
<td>QMS 202</td>
<td>Performance Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credit Hours 15

Office Systems - 5202013219
(Offered at BSC, GTW, HEC, HZC, MDC, SEC, SMC, WKC)

Required:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>OST 110</td>
<td>Document Formatting and Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>OST 210</td>
<td>Advanced Word Processing Applications</td>
<td></td>
</tr>
<tr>
<td>OST 215</td>
<td>Office Procedures</td>
<td></td>
</tr>
<tr>
<td>OST 220</td>
<td>Administrative Office Simulations</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>OST 150</td>
<td>Transcription and Office Technology</td>
<td>3</td>
</tr>
<tr>
<td>OST 160</td>
<td>Records and Database Management</td>
<td>3</td>
</tr>
<tr>
<td>OST 216</td>
<td>Selected Topics in Office Systems: (Topic)</td>
<td>1-3</td>
</tr>
<tr>
<td>OST 235</td>
<td>Business Communications Technology</td>
<td>3</td>
</tr>
<tr>
<td>OST 295</td>
<td>Office Systems Technology Internship OR</td>
<td>1-3</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education: (Business Technology) OR (1-3)</td>
<td></td>
</tr>
<tr>
<td>BAS 280</td>
<td>Business Internship</td>
<td>(1-3)</td>
</tr>
<tr>
<td>OST 275</td>
<td>Office Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits 18

Operations Management - 52013369
(Offered at BSC, GTW, HEC, HPC, MYC, SEC, SMC, WKC)

Required:

<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 287</td>
<td>Supervisory Management OR</td>
<td></td>
</tr>
<tr>
<td>BAS 288</td>
<td>Personal &amp; Organizational Leadership OR</td>
<td>(3)</td>
</tr>
<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td></td>
</tr>
<tr>
<td>BAS 289</td>
<td>Operations Management OR</td>
<td></td>
</tr>
<tr>
<td>MGF 256</td>
<td>Production Management</td>
<td>(3)</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td></td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Skills</td>
<td>(3)</td>
</tr>
</tbody>
</table>

Total Credits 12

Payroll Accounting Specialist - 5202013439
(Offered at ASC, BSC, ELC, HEC, MDC, MYC, OW, SEC, SKY, WKC)

Required:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<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>ACT 196</td>
<td>Payroll Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACT 279</td>
<td>Computerized Accounting Systems</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 9-12

Pre-Licensing Real Estate - 5202013239
(Offered at ASC, BSC, HLC, MDC, MYC, OW, SEC, WKC)

Required:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>REA 100</td>
<td>Real Estate Principles I</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose 3 hours from the following Technical Courses.
Students may select other courses as approved by the Business Administration Systems Program Coordinator.

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>REA 120</td>
<td>Real Estate Marketing</td>
<td></td>
</tr>
<tr>
<td>REA 200</td>
<td>Real Estate Principles II</td>
<td></td>
</tr>
<tr>
<td>REA 225</td>
<td>Real Estate Finance</td>
<td></td>
</tr>
<tr>
<td>REA 230</td>
<td>Real Estate Law</td>
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</tr>
</tbody>
</table>

Total Credits 6

Quality Management - 5202013229
(Offered at ASC, OW, SEC)

Required:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
</tr>
<tr>
<td>QMS 240</td>
<td>Statistics for Quality I</td>
<td></td>
</tr>
<tr>
<td>QMS 201</td>
<td>Customer Service Improvement Skills</td>
<td></td>
</tr>
<tr>
<td>QMS 202</td>
<td>Performance Management</td>
<td></td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra</td>
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</tbody>
</table>

Total Credits 15

Real Estate Pre-Brokerage Management - 5202013489
(Offered at BLC, OW, SEC)

Required:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>REA 100</td>
<td>Real Estate Principles I</td>
<td>3</td>
</tr>
<tr>
<td>REA 220</td>
<td>Brokerage Management</td>
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<tr>
<td>REA 230</td>
<td>Real Estate Principles II</td>
<td>3</td>
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</table>

Subtotal 9

Choose 9 hours from the following list:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>REA 120</td>
<td>Real Estate Marketing</td>
<td></td>
</tr>
<tr>
<td>REA 121</td>
<td>Appraising</td>
<td></td>
</tr>
<tr>
<td>REA 122</td>
<td>Construction and Blueprints</td>
<td></td>
</tr>
<tr>
<td>REA 201</td>
<td>Property Management</td>
<td></td>
</tr>
<tr>
<td>REA 202</td>
<td>Real Estate Investments I</td>
<td></td>
</tr>
<tr>
<td>REA 225</td>
<td>Real Estate Finance</td>
<td></td>
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</tbody>
</table>

Subtotal 9

Additional General Education Requirements

Choose 6 hours from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PSY 110</td>
<td>General Psychology</td>
<td></td>
</tr>
<tr>
<td>ECO 201</td>
<td>Principles of Microeconomics</td>
<td></td>
</tr>
<tr>
<td>ACC 201</td>
<td>Financial Accounting</td>
<td></td>
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<tr>
<td>CIT 130</td>
<td>Productivity Software</td>
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</tbody>
</table>

Subtotal 6

Total Credits 24

Residential Real Estate - 5202013249
(Offered at ASC, ELC, MDC, MYC, OW, SEC, WKC)

Required:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>REA 100</td>
<td>Real Estate Principles I</td>
<td>3</td>
</tr>
<tr>
<td>REA 120</td>
<td>Real Estate Marketing</td>
<td></td>
</tr>
</tbody>
</table>

Choose 6 hours from the following Approved Technical Courses.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>REA 121</td>
<td>Appraising</td>
<td></td>
</tr>
<tr>
<td>REA 122</td>
<td>Construction and Blueprints</td>
<td></td>
</tr>
<tr>
<td>REA 200</td>
<td>Real Estate Principles II</td>
<td></td>
</tr>
<tr>
<td>REA 201</td>
<td>Property Management</td>
<td></td>
</tr>
<tr>
<td>REA 225</td>
<td>Real Estate Finance</td>
<td></td>
</tr>
<tr>
<td>REA 230</td>
<td>Real Estate Law</td>
<td></td>
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</tbody>
</table>

Total Credits 12
Sales - 5202013259

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

Required:
BAS 155 Personal Selling ........................................... 3
COM 181 Basic Public Speaking OR ................................... 3
COM 252 Introduction to Interpersonal Communication .......... (3)

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

BAS 291 Retail Management ........................................... 3
CIT 155 Web Page Development ..................................... 3
QMS 201 Customer Service Improvement Skills .................. 3
BAS 260 Professional Development and Protocol .................. 2
COE 199 Cooperative Education OR ................................. (1-3)
BAS 280 Business Internship ........................................... (1-3)

Total Credits 12

Small Business Management - 5202013269

(Offered at ASC, BSC, ELC, HEC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC) Available Completely Online

Required:
BAS 160 Introduction to Business OR .................................. 3
BAS 170 Entrepreneurship .................................................. (3)
BAS 200 Small Business Management .................................. 3
BAS 212 Introduction to Financial Management OR ............... (3)
QMS 101 Introduction to Quality Systems OR .......... Second Quantitative Reasoning Course from General Education ...................... (3)
BAS 282 Principles of Marketing ........................................... 3
ACC 201 Financial Accounting OR ....................................... 3
ACT 177 Entrepreneurial Accounting OR .................................. (3)
ACT 101 Fundamentals of Accounting I AND ......................... (3)
ACT 102 Fundamentals of Accounting II .................................. (3)

Total Credits 15-18

Supervisory Management - 5202013279

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

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

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

BAS 283 Principles of Management .................................. 3
BAS 288 Personal and Organizational Leadership .................. 3
BAS 290 Management, Ethics & Society ............................... 3
OST 275 Office Management ............................................. 3
QMS 101 Introduction to Quality Systems ............................. 3

Total Credits 21

Team Leadership - 5202013309

(Offered at BSC, ELC, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, WKC) Available Completely Online

Required Courses:
OST 105 Introduction to Information Systems OR ..................... 3
CIT 105 Introduction to Computers ...................................... 3
OST 235 Business Communication Technology OR .................. 3
COM 181 Basic Public Speaking OR ....................................... (3)

Total Credits 17

Telecommunication Systems Management - 5202013289

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

Total Credits 18-20

Turf Grass / Landscaping Management - 5202013299

(Offered at OWC, SEC, SMC)

Required:
TGM 140 Turf Grass for Golf and Landscaping ................. Golf Course Maintenance Systems .................. 3
AGR 125 Introduction to Soils & Fertilizers .............. 3
TGM 210 Turf Grass Science ........................................... 3
HRT 130 Landscape Maintenance ..................................... 3
HRT 131 Landscape Maintenance Lab ............................... 2

Choose 3-5 hours from the following Technical Courses.
Students may select other courses as approved by the Business Administration Systems Program Coordinator.

TGM 160 Golf Course Maintenance Systems .................. 3
TGM 220 Golf Course Irrigation ...................................... 3
TGM 230 Golf Course Operations ..................................... 3
AGR 140 Issues in Agriculture ......................................... 3
AGR 165 Agriculture Seminar ........................................... 3
AGR 170 Introduction to Equipment, Machines, & Engines ..... 3
HRT 104 Herbaceous Plant Identification ....................... 4
HRT 108 Woody Plant Identification ................................. 4
HRT 120 Turf Management ............................................. 3
COE 199 Cooperative Education OR .................................... (1-3)
BAS 280 Business Internship ........................................... (1-3)

Total Credits 17
Medical Information Technology graduates prepare medical records and reports, maintain paper and electronic files, order supplies, perform accounting procedures, work with medical insurance and coding, and receive patients in a variety of health care settings. Some of the degree tracks include Medical Administrative Assistant, Medical Insurance Cod-er, and Electronic Medical Records. Students enrolled in the degree or diploma programs are required to do an internship or capstone course.

Progression in the Medical Information Technology program is contingent upon achievement of a grade of “C” or better in each course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

**Associate in Applied Science**

**Medical Information Technology - 5107167019**

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

**General Education:**

- **MAT 105** Business Math OR ................................................. 3
- **MAT 110** Applied Mathematics OR .................................. (3)
- **MAT 150** College Algebra OR ............................................. (3)
- **ENG 101** Writing I .........................................................
- **BIO 135** Basic Anatomy and Physiology with Laboratory** ................................. 4

- Oral Communications .................................................... 3
- **Heritage/Humanities** .................................................... 3
- **Social/Behavioral Sciences** ........................................... 3

**Subtotal** 19

**Technical Core:**

- **OST 105** Introduction to Information Systems OR ................. 3
- **CIT 105** Introduction to Computers .................................. (3)
- **OST 110** Document Formatting and Word Processing .............. 3
- **MIT 230** Medical Information Management ......................... 3
- **OST 240** Software Integration OR ..................................... 3
- **CIT 130** Productivity Software ........................................ (3)
- **MIT 103** Medical Office Terminology OR ............................ 3
- **AHS 115** Medical Terminology OR ................................... (3)
- **CLA 131** Medical Terminology from Greek and Latin ............ (3)
- **MIT 104** Medical Insurance ............................................ 3
- **MIT 217** Medical Office Procedures .................................. 3
- **MIT 224** Medical Practice Management .............................. 3
- **MIT 228** Electronic Medical Records ................................ 3
- **MIT 295** Medical Information Technology Capstone ............. 3

**Subtotal** 30

**Medical Administrative Track - 510716705**

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

**Available Completely Online**

- **ACT 101** Fundamentals of Accounting I OR ....................... 3
- **ACC 201** Financial Accounting I ....................................... (3)
- **OST 225** Introduction to Desktop Publishing ....................... 3
- **OST 235** Business Communications Technology ................ 3
- **OST 210** Advanced Word Processing Application ................. 3

**Subtotal** 15

**Total** 64

**Medical Coding Track - 510716706**

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

**Available Completely Online**

- **ACT 101** Fundamentals of Accounting I OR ....................... 3
- **ACC 201** Financial Accounting I ....................................... (3)
- **OST 210** Advanced Word Processing Application ................. 3
- **OST 235** Business Communications Technology ................ 3

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

**Subtotal** 15

**Total** 64

**Electronic Medical Records Track - 510716707**

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

**Available Completely Online**

- **ACT 101** Fundamentals of Accounting I OR ....................... 3
- **ACC 201** Financial Accounting I ....................................... (3)
- **OST 210** Advanced Word Processing Application ................. 3
- **CIT 170** Introduction to Database Design ......................... 3

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

**Subtotal** 15

**Total** 64

**Medical Office Management Track – 510716709**

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

**Available Completely Online**

- **MIT 106** Medical Coding .................................................. 3
- **MIT 206** Medical Transcription ........................................ 3
- **OST 210** Advanced Word Processing Application ................. 3
- **OST 235** Business Communications Technology ................ 3

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

**Subtotal** 15

**Total** 64

**Medical Transcription Track - 510716708**

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

**Available Completely Online**

- **MIT 106** Medical Coding .................................................. 3
- **MIT 206** Medical Transcription ........................................ 3
- **OST 210** Advanced Word Processing Application ................. 3
- **OST 235** Business Communications Technology ................ 3

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

**Subtotal** 15

**Total** 64

**Diplomas**

**Medical Administrative Assistant - 5107164019**

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

**Available Completely Online**

**General Education/Applied Academics**

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

**Subtotal** 7

**Technical or Support Courses**

- **ACT 101** Fundamentals of Accounting I OR ....................... 3
- **ACC 201** Financial Accounting I ....................................... (3)
- **OST 110** Document Formatting and Word Processing ...................... 3
- **OST 213** Business Calculation for Office Professionals OR .......... 3
- **MAT 105** Business Mathematics OR ................................ (3)
- **Higher Quantitative Reasoning course** ................................ (3)
**Students can fulfill the Biology requirement with both BIO 137 and BIO 139.**

### General Education/Applied Academics

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MIT 228 Medical Information Technology (Capstone)</td>
<td>3</td>
</tr>
<tr>
<td>MIT 103 Medical Office Terminology OR</td>
<td></td>
</tr>
<tr>
<td>AHS 115 Medical Terminology OR</td>
<td></td>
</tr>
<tr>
<td>MIT 295 Medical Information Technology Capstone</td>
<td>3</td>
</tr>
<tr>
<td>MIT 104 Medical Insurance</td>
<td>3</td>
</tr>
<tr>
<td>MIT 217 Medical Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>MIT 228 Electronic Medical Records</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Total 42

| Subtotal | 49 |

### Medical Records Specialist - 5107164069

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

Available Completely Online

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>OST 235 Business Communications Technology</td>
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</tr>
<tr>
<td>MIT 230 Medical Information Management</td>
<td>3</td>
</tr>
<tr>
<td>OST 210 Advanced Word Processing Application</td>
<td>3</td>
</tr>
<tr>
<td>OST 240 Software Integration OR</td>
<td>3</td>
</tr>
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<td>MIT 103 Medical Office Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>AHS 115 Medical Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>CLA 131 Medical Terminology from Greek &amp; Latin</td>
<td>3</td>
</tr>
<tr>
<td>CIT 130 Productivity Software</td>
<td>3</td>
</tr>
<tr>
<td>MIT 104 Medical Insurance</td>
<td>3</td>
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<td>MIT 217 Medical Office Procedures</td>
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Subtotal | 30 |

Total | 37 |

### Technical or Support Courses

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<td>OST 110 Document Formatting and Word Processing</td>
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<td>3</td>
</tr>
<tr>
<td>OST 210 Advanced Word Processing Application</td>
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<tr>
<td>OST 240 Software Integration OR</td>
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<tr>
<td>MIT 103 Medical Office Terminology OR</td>
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<td>AHS 115 Medical Terminology OR</td>
<td>3</td>
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<td>CLA 131 Medical Terminology from Greek &amp; Latin</td>
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<td>MIT 217 Medical Office Procedures</td>
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</table>

Subtotal | 30 |

Total | 37 |

### Medical Coding - 5107163079

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

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<tr>
<td>CIT 105 Introduction to Computers</td>
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<tr>
<td>MIT 230 Medical Information Management</td>
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<td>MIT 103 Medical Office Terminology OR</td>
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<td>AHS 115 Medical Terminology OR</td>
<td>3</td>
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<td>CLA 131 Medical Terminology from Greek &amp; Latin</td>
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<td>MIT 104 Medical Insurance</td>
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Subtotal | 12 |

Total | 22 |

### Medical Transcriptionist – 5107163089

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

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<td>MIT 103 Medical Office Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>AHS 115 Medical Terminology OR</td>
<td>3</td>
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<td>CLA 131 Medical Terminology from Greek &amp; Latin</td>
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<tr>
<td>MIT 106 Introduction to Medical Transcription</td>
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Subtotal | 24 |

**Certificates**

### Medical Unit Coordinator - 5107163019

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

Available Completely Online

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<td>CIT 105 Introduction to Computers</td>
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<td>BIO 135 Basic Anatomy and Physiology with Laboratory**</td>
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<td>ENG 101 Writing I</td>
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Subtotal | 31 |

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

### Medical Reimbursement Specialist - 5107163110

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

Available Completely Online

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<th>Course</th>
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<td>CIT 105 Introduction to Computers</td>
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<td>MIT 230 Medical Information Management</td>
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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>CLA 131 Medical Terminology from Greek &amp; Latin</td>
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<tr>
<td>MIT 217 Medical Office Procedures</td>
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</tr>
</tbody>
</table>

Subtotal | 12 |

Total | 30 |

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

The Supply Chain Management AAS degree incorporates knowledge of the field of logistics, supply chain management, quality management, lean concepts and application, business and operations management, critical communication skills, and digital literacy required for successful employment in the logistics industry. The program will prepare students to perform functions in the modern logistics and supply chain management environment as well as give the preparation to obtain two national industry credentials (CLA and CLT) as a result.

The Supply Chain Specialist Certificate program prepares students for entry-level positions in the field of Logistics. Graduates will also obtain two national industry credentials (CLA and CLT) through successful completion of coursework and a passing score on the respective tests.

The Logistics Quality Technician Certificate program prepares students with quality management knowledge and strategic concepts of planning as a proactive catalyst for organizational and quality improvement in the logistics industry. Graduates will also obtain two national industry credentials (CLA and CLT) through successful completion of coursework and a passing score on the respective tests.

The Logistics Operations Certificate program provides students with knowledge in business, operations, and project management leading to a variety of positions in the logistics industry. Graduates will also obtain two national industry credentials (CLA and CLT) through successful completion of coursework and a passing score on the respective tests.

---

### Associate in Applied Science

#### Supply Chain Management – 5202037029

(Offered at GTW)

<table>
<thead>
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<th>Title</th>
<th>Credits</th>
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<tr>
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<td>COM</td>
<td>Basic Public Speaking OR</td>
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<td>COM</td>
<td>Introduction to Interpersonal Communications</td>
<td>3</td>
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<tr>
<td>ECO</td>
<td>Contemporary Economic Issues OR</td>
<td>3</td>
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<tr>
<td>ECO</td>
<td>Principles of Microeconomics OR</td>
<td>3</td>
</tr>
<tr>
<td>ECO</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>MAT</td>
<td>Applied Mathematics or Higher Quantitative Reasoning</td>
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<tr>
<td>ENG</td>
<td>Heritages/ Humanities</td>
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<td>MGT</td>
<td>Lean for Logistics</td>
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<td>QMS</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
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<td>CIT</td>
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<td>BAS</td>
<td>Introduction to Business</td>
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<td>BAS</td>
<td>International Business</td>
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<tr>
<td>BAS</td>
<td>Personal and Organization Leadership</td>
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<td>BAS</td>
<td>Operations Management</td>
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<td>LOM</td>
<td>Transportation</td>
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<td>QMS</td>
<td>Customer Improvement Skills</td>
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<td>QMS</td>
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<td>Project Management OR</td>
<td>3</td>
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<td>QMS</td>
<td>Strategic Quality Planning</td>
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<td>BAS</td>
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Subtotal: 18

### Certificate

#### Supply Chain Specialist – 5202033059

(Offered at GTW)

<table>
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<td>CIT</td>
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</tr>
<tr>
<td>LOM</td>
<td>Introduction to Logistics Management</td>
<td>3</td>
</tr>
<tr>
<td>LOM</td>
<td>Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>LOM</td>
<td>Lean for Logistics</td>
<td>3</td>
</tr>
<tr>
<td>QMS</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
</tr>
<tr>
<td>QMS</td>
<td>Strategic Quality Planning</td>
<td>3</td>
</tr>
<tr>
<td>QMS</td>
<td>Business Communications OR</td>
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<td>QMS</td>
<td>Interpersonal Communications</td>
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Total Credits: 15

#### Logistics Quality Technician – 5202033069

(Offered at GTW)

<table>
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<td>CIT</td>
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<td>LOM</td>
<td>Introduction to Logistics Management</td>
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<td>Supply Chain Management</td>
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<tr>
<td>LOM</td>
<td>Lean for Logistics</td>
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<tr>
<td>QMS</td>
<td>Introduction to Quality Systems</td>
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<tr>
<td>QMS</td>
<td>Interpersonal Communications</td>
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</table>

Total Credits: 21
Business Communication

The certificate in business communication will prepare students for a career in the rapidly evolving and expanding community of global enterprise. Students will learn both theoretical and applied lessons concerning effective management, team building, evaluation, message construction, effective listening, and standards for establishing mentorships through networking and workplace integration and socialization. They will complete a 5 course, 15 credit hour sequence with 2 courses selected from among class options in business and 3 courses selected from among class options in communication. There is no definitive time frame for a student to complete the certificate and they may choose to incorporate it as part of their broader degree attainment.

Certificate

Business Communication – 5202013469
(Offered at ASC, BSC, OWC, SEC)

Complete 2 (two) course from the list below.
BAS 160 Introduction to Business ........................................... 3
BAS 274 Human Resource Management .................................... 3
BAS 282 Principles of Marketing ............................................. 3
BAS 283 Principles of Management ......................................... 3
BAS 287 Supervisory Management .......................................... 3

Subtotal 6

Complete 3 (three) course from the list below.
COM 181 Basic Public Speaking ............................................. 3
COM 252 Introduction to Interpersonal Communication ............ 3
COM 254 Introduction to Intercultural Communication ............ 3
COM 281 Communication in Small Groups ............................. 3
COM 287 Persuasive Speaking .............................................. 3

Subtotal 9

Total Credit Hours 15

Business Foundations

The Business Foundations certificate incorporates foundational knowledge of finance, quality systems, and external environmental factors that affect businesses today. The certificate will prepare students to perform functions in an integrated business environment and better understand organizational strategies.

Certificate

Business Foundations – 5201013029
(Offered at ASC, BSC, HZC, GTW, SEC)

QMS 101 Introduction to Quality Systems .............................. 3
ACC 201 Financial Accounting OR ...................................... 3
ACT 101 Fundamentals of Accounting I AND .......................... (3)
ACT 102 Fundamentals of Accounting II .............................. (3)

Total Credits 21

Business Management and Marketing

The Business Management and Marketing program prepares students for a variety of careers in business. A core curriculum provides students with a foundation of knowledge applicable to any business career. The curriculum is designed for those who seek entry-level jobs, as well as for currently employed individuals wishing to enhance their skills. A student specializes by choosing from one of the following options:

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

The Marketing and Retailing Option leads to employment in sales, merchandise management, buying, department supervising, or retail management.

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

The Equine Business Management Option provides the knowledge and skills needed to manage the business functions and other business activities within the horse industry.

Associate in Applied Science

Business Management and Marketing Core – 5202017139
Currently in teach out at Bluegrass Community and Technical College

General Education

COM 181 Basic Public Speaking* OR ...................................... 3
COM 252 Introduction to Interpersonal Communications* ........ (3)
ENG 101 Writing I* .......................................................... 3
ENG 102 Writing II* .......................................................... 3
ENG 203 Business Writing .................................................. 3
ECO 201 Principles of Microeconomics* ............................... 3
ECO 202 Principles of Macroeconomics ............................... (3)
ENG 203 Business Writing .................................................. 3
ECO 201 Principles of Microeconomics* ............................... 3
ECO 202 Principles of Macroeconomics ............................... (3)
ENG 203 Business Writing .................................................. 3
ECO 201 Principles of Microeconomics* ............................... 3
ECO 202 Principles of Macroeconomics ............................... (3)
ENG 203 Business Writing .................................................. 3
ECO 201 Principles of Microeconomics* ............................... 3
ECO 202 Principles of Macroeconomics ............................... (3)
ENG 203 Business Writing .................................................. 3
Total Credit Hours 24

* Satisfies General Education requirement for AAS degree

Technical Core

MGT 101 Quality Management Principles .................................. 3
MGT 160 Introduction to Business ........................................... 3
MGT 240 Business Ethics and Self-Management .......................... 3
MKT 282 Principles of Marketing .......................................... 3
MKT 283 Principles of Management ...................................... 3
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<td>ECO 202</td>
<td>Principles of Macroeconomics</td>
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<td>COE 199</td>
<td>Cooperative Education: Business Management</td>
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</tr>
<tr>
<td>MKT 299</td>
<td>Selected Topics in Management: (Track Topic)</td>
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<td>MKT 299</td>
<td>Selected Topics in Marketing: (Track Topic)</td>
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<tr>
<td>IMD 275</td>
<td>Workplace Management</td>
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<tr>
<td>COE 199</td>
<td>Cooperative Education: Business Technology</td>
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<td>ECO 202</td>
<td>Principles of Macroeconomics</td>
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<td>REA 100</td>
<td>Real Estate Principles I</td>
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<td>REA 121</td>
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<td>REA 230</td>
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**Management Track - 520201711**

**Required:**

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<td>MGT 256</td>
<td>Operations Management</td>
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<tr>
<td>MGT 274</td>
<td>Human Resource Management OR</td>
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<td>MGT 287</td>
<td>Supervisory Management</td>
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<td>MGT 288</td>
<td>Self-Management</td>
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<td>MKT 290</td>
<td>Advertising and Promotion</td>
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<td>MKT 291</td>
<td>Retail Management</td>
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</tr>
<tr>
<td>MKT 293</td>
<td>Buying and Merchandising</td>
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<td>MKT 299</td>
<td>Selected Topics in Marketing: (Track Topic)</td>
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<tr>
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<td>COE 199</td>
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<tr>
<td>ECO 202</td>
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**Choose a total of 6 hours from the following:**

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<td>MGT 256</td>
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<td>MGT 258</td>
<td>Project Management</td>
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<td>MGT 274</td>
<td>Human Resource Management OR</td>
<td>3</td>
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<td>MGT 287</td>
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<tr>
<td>MGT 288</td>
<td>Self-Management</td>
<td>3</td>
</tr>
<tr>
<td>MKT 155</td>
<td>Personal Selling</td>
<td>3</td>
</tr>
<tr>
<td>MKT 290</td>
<td>Advertising and Promotion</td>
<td>3</td>
</tr>
<tr>
<td>MKT 291</td>
<td>Retail Management</td>
<td>3</td>
</tr>
<tr>
<td>MKT 293</td>
<td>Buying and Merchandising</td>
<td>3</td>
</tr>
<tr>
<td>MKT 299</td>
<td>Selected Topics in Management: (Track Topic)</td>
<td>1</td>
</tr>
<tr>
<td>MKT 299</td>
<td>Selected Topics in Marketing: (Track Topic)</td>
<td>1</td>
</tr>
<tr>
<td>IMD 275</td>
<td>Workplace Management</td>
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</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education: Business Technology</td>
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</tr>
<tr>
<td>ECO 202</td>
<td>Principles of Macroeconomics</td>
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**Total**

**Marketing and Retailing Track - 520201712**

**Required:**

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<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>MKT 155</td>
<td>Personal Selling</td>
<td>3</td>
</tr>
<tr>
<td>MKT 290</td>
<td>Advertising and Promotion</td>
<td>3</td>
</tr>
<tr>
<td>MKT 291</td>
<td>Retail Management</td>
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<td>MKT 293</td>
<td>Buying and Merchandising</td>
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<td>MGT 200</td>
<td>Small Business Management</td>
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<td>MGT 258</td>
<td>Project Management</td>
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<tr>
<td>MGT 288</td>
<td>Self-Management</td>
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<tr>
<td>MKT 299</td>
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</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education: Business Management and Marketing (Track Topic)</td>
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<tr>
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**Subtotal**

**Total**

**Real Estate Management Track – 520201713**

**Required:**

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<td>Real Estate Principles I</td>
<td>3</td>
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<tr>
<td>REA 121</td>
<td>Appraising</td>
<td>3</td>
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<td>REA 225</td>
<td>Real Estate Finance</td>
<td>3</td>
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<td>REA 230</td>
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<td>3</td>
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<td>REA 122</td>
<td>Construction and Blueprints</td>
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<td>REA 200</td>
<td>Real Estate Principles II</td>
<td>3</td>
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<tr>
<td>REA 201</td>
<td>Property Management</td>
<td>3</td>
</tr>
<tr>
<td>REA 202</td>
<td>Real Estate Investments I</td>
<td>3</td>
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<tr>
<td>REA 220</td>
<td>Real Estate Brokerage Management</td>
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<tr>
<td>COE 199</td>
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**Subtotal**

**Total**

**Real Estate Pre-Brokerage Management – 5202013409**

**Required:**

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<td>Real Estate Principles I</td>
<td>3</td>
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<td>Brokerage Management</td>
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<td>REA 230</td>
<td>Real Estate Law</td>
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**Subtotal**

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<td>3</td>
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<tr>
<td>REA 121</td>
<td>Appraising</td>
<td>3</td>
</tr>
<tr>
<td>REA 122</td>
<td>Construction and Blueprints</td>
<td>3</td>
</tr>
<tr>
<td>REA 201</td>
<td>Property Management</td>
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<td>REA 202</td>
<td>Real Estate Investments I</td>
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**Subtotal**

**Additional General Education Requirements:**

**Choose 6 hours:**

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<td>3</td>
</tr>
<tr>
<td>ECO 201</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ACC 201</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>CIT 130</td>
<td>Productivity Software</td>
<td>3</td>
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**Subtotal**

**Total**

**Equine Business Management Track – 520201714**

**Required:**

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<thead>
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<th>Course Title</th>
<th>Hours</th>
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<tr>
<td>EQS 101</td>
<td>Introduction to Thoroughbred</td>
<td>3</td>
</tr>
<tr>
<td>EQS 103</td>
<td>Racehorse Care</td>
<td>1</td>
</tr>
<tr>
<td>EQS 104</td>
<td>Racehorse Care Lab OR</td>
<td>3</td>
</tr>
<tr>
<td>EQS 299</td>
<td>Equine Internship</td>
<td>1-9</td>
</tr>
<tr>
<td>EQS 118</td>
<td>Equine Bloodstock</td>
<td>3</td>
</tr>
<tr>
<td>EQM 120</td>
<td>Introduction to Commercial Breeding Practices</td>
<td>3</td>
</tr>
<tr>
<td>EQS 130</td>
<td>Introduction to Racing Industry</td>
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<tr>
<td>EQS 240</td>
<td>Equine Legal and Business Principles</td>
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**Subtotal**

**Total**

**Equine Management – 5202013399**

**Required:**

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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>EQM 100</td>
<td>Introduction to Equine Studies</td>
<td>3</td>
</tr>
<tr>
<td>EQM 120</td>
<td>Introduction to Commercial Breeding</td>
<td>3</td>
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<td>EQM 140</td>
<td>Equine Business Management I</td>
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<tr>
<td>MGT 160</td>
<td>Introduction to Business</td>
<td>3</td>
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<td>EQM 240</td>
<td>Equine Business Management II</td>
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</tr>
<tr>
<td>EQM 242</td>
<td>Equine Law</td>
<td>3</td>
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<td>EQM 246</td>
<td>Current Trends in the Equine Industry</td>
<td>1</td>
</tr>
<tr>
<td>PSY 110</td>
<td>General Psychology</td>
<td>3</td>
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<tr>
<td>MGT 101</td>
<td>Quality Management Principles</td>
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**Total**

**Real Estate Pre-Brokerage Management – 5202013409**

**Required:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>REA 100</td>
<td>Real Estate Principles I</td>
<td>3</td>
</tr>
<tr>
<td>REA 220</td>
<td>Brokerage Management</td>
<td>3</td>
</tr>
<tr>
<td>REA 230</td>
<td>Real Estate Law</td>
<td>3</td>
</tr>
</tbody>
</table>

**Subtotal**

**Choose 9 hours from the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>REA 120</td>
<td>Real Estate Marketing</td>
<td>3</td>
</tr>
<tr>
<td>REA 121</td>
<td>Appraising</td>
<td>3</td>
</tr>
<tr>
<td>REA 122</td>
<td>Construction and Blueprints</td>
<td>3</td>
</tr>
<tr>
<td>REA 201</td>
<td>Property Management</td>
<td>3</td>
</tr>
<tr>
<td>REA 202</td>
<td>Real Estate Investments I</td>
<td>3</td>
</tr>
<tr>
<td>REA 225</td>
<td>Real Estate Financing</td>
<td>3</td>
</tr>
</tbody>
</table>

**Subtotal**

**Additional General Education Requirements:**

**Choose 6 hours:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
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<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>ECO 201</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ACC 201</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>CIT 130</td>
<td>Productivity Software</td>
<td>3</td>
</tr>
</tbody>
</table>

**Subtotal**

**Total**

**Certificates**
Certified Medical Technician

The program bundles the current classes of NAA100, PHB152, PHB170 and CPR100. Once all of these classes are completed successfully the graduate will be eligible to receive the certified medical technician certificate. The program allows the graduate to either enter the healthcare field with a varied technical skill set and/or enter a healthcare program.

Certificates

Certified Medical Technician - 5108993039

(Offered at MDC, SMC)

CPR 100 CPR for Healthcare Professionals ........................................ 1
NAA 100 Nursing Assistant Skills I .................................................... 3
PHB 152 Phlebotomy: Clinical Experience ...................................... 1
PHB 170 Applied Phlebotomy ....................................................... 3
Total 8

Civil Engineering Technology

The Civil Engineering Technology program is an Associates of Applied Science program designed to offer students the training necessary to establish careers in civil engineering technology fields. Career options include materials testing, commercial, residential and highway surveying; highway construction management; construction management; construction estimation; construction documentation; construction site design and waste-water management.

The Civil Engineering Technology Program will focus on the field tasks and hands on aspects of construction.

Associate in Applied Science

Civil Engineering Technology - 1502017019

(Offered at BLC, BSC)

Required

ENG 101 Writing I* ................................................................. 3
ENG 102 Writing II* ............................................................... 3
CAD 100 Introduction to Computer-Aided Design OR ................. 3
ACH 185 Computer-Aided Drafting I .......................................... (3)
MA 109 College Algebra* ....................................................... 3
PHY 211 General Physics* ..................................................... 5
ACH 160 Building Materials and Construction I ............................ 3
ACH 225 Structures ............................................................. 3
CE 211 Surveying ................................................................. 4
CET 150 Civil Engineering Graphics ........................................... 3

Total 33

Elective

ACH 150 Construction Documents II .......................................... 3
ACH 161 Building Materials and Construction II ......................... 3
ACH 295 Estimating Techniques ................................................ 3
ACH 298 Computer 3D Modeling ............................................. 3
CAD 200 Intermediate Computer-Aided Design ......................... 3
CET 280 Highway Design ....................................................... 3
CET 295 Independent Problems ................................................ 1-4
COE 199 Cooperative Education: CET ....................................... 3
GIS 110 Spatial Data Analysis and Map Interpretation ................ 3
GIS 120 Introduction to Geographic Information Systems .......... 3
GIS 210 Advanced Topics in GIS ............................................ 3
GLY 220 Principles of Physical Geology .................................. 4

Total 6

Total 67

Subtotal 6

Technical Electives**

ACH 100 Construction Documents I .......................................... 3
ACH 150 Construction Documents II ......................................... 3
ACH 161 Building Materials and Construction II ....................... 3
ACH 285 Computer-Aided Drafting II ...................................... 3
ACH 290 Building Codes I ...................................................... 3
ACH 291 Construction Management .......................................... 3
ACH 292 Building Codes II .................................................... 3
ACH 294 Specification Writing ................................................ 3
ACH 297 Estimating Techniques .............................................. 3
ACH 298 Computer 3D Modeling ............................................ 3
CAD 200 Intermediate Computer-Aided Design ......................... 3
CET 280 Highway Design ....................................................... 3
CET 295 Independent Problems ................................................ 1-4
COE 199 Cooperative Education: CET ....................................... 3
GIS 110 Spatial Data Analysis and Map Interpretation ................ 3
GIS 120 Introduction to Geographic Information Systems .......... 3
GIS 210 Advanced Topics in GIS ............................................ 3
GLY 220 Principles of Physical Geology .................................. 4

Total 60

Subtotal 40

Total 67

Collision Repair Technology

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

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

Diploma

Collision Repair Technician - 4706034019

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

General Education Courses:

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

Technical Courses:

CRT 100 Introduction to Collision Repair ................................... 0-3
CRT 130 Non-Structural Analysis and Damage Repair ............... 6
CRT 131 Non-Structural Analysis and Damage Repair Lab ........ 6
CRT 150 Painting and Refinishing ............................................ 6
CRT 151 Painting and Refinishing Lab .................................... 6
CRT 230 Structural Analysis and Damage Repair ....................... 6
CRT 231 Structural Analysis and Damage Repair Lab ................. 6

Total 6

* Satisfies General Education requirement for AAS degree
** Other course(s) approved by program coordinator
Computer Aided Drafting and Design

A computer aided drafter and designer is a technical specialist with broad-based skills for architectural, civil, mechanical, and manufacturing fields. In this program, the students are taught manual drafting techniques, 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 Program

A computer aided drafter and designer is a technical specialist with broad-based skills for architectural, civil, mechanical, and manufacturing fields. In this program, the students are taught manual drafting techniques, 2D and 3D CAD, and 3D printing. Specific skills taught include, but are not limited to, lettering, geometric construction, orthographic projections, dimensioning and tolerancing, and related technical processes. These skills are required to transform specifications and instructions of architects, designers, and engineers into complete and precise drawings. The drafter is a skilled technician with a thorough understanding of the graphic language and is an indispensable contributor to the engineering design team.

Progression in the Computer Aided Drafting and Design program is contingent upon achievement of a grade of “C” or greater in each technical and mathematics course with maintenance of a 2.0 cumulative grade point average or above (on a 4 scale).

Associate in Applied Science

Computer Aided Drafting and Design - 1513017029

(Offered at BLC, BSC, ELC)

General Education:

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<td>Natural Sciences</td>
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<td>Social/Behavioral Sciences</td>
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<td>Heritage/Humanities</td>
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Technical Core:

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<td>CAD 112</td>
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<td>CAD 200</td>
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<td>CAD 201</td>
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Technical Electives:

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<td>CAD 150</td>
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<td>Industrial Drafting Processes</td>
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<td>CAD 216</td>
<td>Building Information Modeling</td>
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<td>CAD 222</td>
<td>Mechanical Design</td>
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<td>CAD 220</td>
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<td>CAD 262</td>
<td>Working Drawings</td>
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<tr>
<td>CAD 292</td>
<td>Industrial Applications</td>
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<td>CAD 293</td>
<td>Special Problems</td>
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Diploma

Computer Aided Drafting and Design - 1513014049

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

Available Completely Online

General Education:

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Subtotal Credits: 60-64
**Technical Core:**

- CAD 100 Introduction to Computer Aided Design OR CAD 103 CAD Fundamentals ... 3
- CAD 102 Drafting Fundamentals ... 4
- CAD 112 Engineering Graphics ... 4
- CAD 200 Intermediate Computer Aided Design ... 4
- CAD 201 Parametric Modeling ... 4
- Technical Electives (Choose from the Technical Elective List) ... 19

**Subtotal** 38-42

**Total Credit** 44-48

**Technical Electives:** (Choose from the Technical Elective List)

- CAD 200 Intermediate CAD
- CAD 103 CAD Fundamentals
- CAD 100 Introduction to Computer Aided Design OR Digital Literacy course OR Quantitative Reasoning (MAT 105 excluded)

**Technical Core:**

- CAD 201 Parametric Modeling
- CAD 200 Intermediate Computer Aided Design
- Digital Literacy course OR Quantitative Reasoning (MAT 105 excluded)

**Subtotal** 19-23

**Total Credits** 29-33

**Civil Drafter – 1513013049**

*Available Completely Online*

**General Education:**

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

**Subtotal** 6

**Technical Core:**

- CAD 100 Introduction to Computer Aided Design OR CAD 103 CAD Fundamentals ... 3
- CAD 102 Drafting Fundamentals ... 4
- CAD 112 Engineering Graphics ... 4

**Subtotal** 7-11

**Total Credits** 13-17

**3D Modeler – 1513013099**

*Available Completely Online*

**General Education:**

- Written Communication, Oral Communications, or Humanities/Heritage ... 3

**Subtotal** 3

**Technical Core:**

- CAD 100 Introduction to Computer Aided Design OR CAD 103 CAD Fundamentals ... 3
- CAD 102 Drafting Fundamentals ... 4
- CAD 201 Parametric Modeling ... 4

**Subtotal** 9-12

**Total Credits** 23-30

**Detailer - 1513013089**

*Available Completely Online*

**General Education:**

- Written Communication, Oral Communications, or Humanities/Heritage ... 3

**Subtotal** 6

**Technical Core:**

- CAD 100 Introduction to Computer Aided Design OR Digital Literacy course ... 0-3
- CAD 103 CAD Fundamentals ... 4
- CAD 102 Drafting Fundamentals ... 4
- CAD 112 Engineering Graphics ... 4
- CAD 200 Intermediate Computer Aided Design ... 4
- Technical Elective ... 4

**Subtotal** 23-27

**Total Credits** 29-33

**Notes:**

- Computer/Digital Literacy must be demonstrated by competency exam or by completing a computer/digital literacy course.
- Technical Electives: (This list is not all inclusive, other courses may be taken as approved by the program coordinator such as courses with prefix ACH, BRX, CAR, SMT, and PLW.)

**Computer Assisted Drafter - 1513013059**

*Available Completely Online*

**General Education:**

- Written Communication, Oral Communications, or Humanities/Heritage ... 3

**Subtotal** 6

**Technical Core:**

- CAD 100 Introduction to Surveying ... 3
- CAD 102 Drafting Fundamentals OR CAD 103 CAD Fundamentals (Digital Literacy course) ... 4
- CAD 100 Introduction to Computer Aided Design OR Digital Literacy course OR Quantitative Reasoning (MAT 105 excluded) ... 3

**Subtotal** 38-42

**Total Credits** 44-48

**Certificates**

**Computer Assisted Drafter - 1513013059**

*Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MYC, OWC, SEC, WKC*

**Civil Drafter - 1513013049**

*Offered at ASC, BLC, BSC, HZC, OWC, SEC, WKC*

**Detailer - 1513013089**

*Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MYC, OWC, SEC, WKC*
Computer & Information Technologies

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

This program includes tracks in Applications, Information Security, Internet Technologies, Network Administration, Networking Technologies, Programming, Computer Science and Video Game Design with a core of courses common to all. The core includes a general education component essential to a collegiate education and a technical component giving students an introduction to information systems, computer applications, program development, system maintenance, networking, security, Internet technologies, database design, and collaborative system development. In addition to core courses, students take specialty courses for their selected track.

- Students graduating with a degree or certificate in Computer & Information Technologies may only use a course with a grade of “C” or higher (or a “Pass” for Pass/Fail courses) to fulfill a core or track graduation requirement.

- The Computer & Information Technologies department does not accept non-Gen Ed courses older than 5 years from returning or transfer students without consent from the local program coordinator.

- Students may not use one course to fulfill multiple requirements.

The Applications track emphasizes several aspects of application software. It includes such productivity applications as: word processing, spreadsheets, database management, presentation, geographic information systems, website development/maintenance, and help desk tracking systems. Completion of this track will prepare students to work with computer-based systems in business and industry.

- Business Software Specialist - Designed to train students to operate a wide variety of software packages and to assist businesses in developing and maintain databases, producing financial statements, and developing applications using various software packages.
- Computer Support - Provides an in-depth knowledge of application software, computer system configurations, Help Desk Tools/Software, end-user documentation, user training, and other user support skills.
- Geographic Information Systems - Provides students with practical GIS skills and a solid foundation for geographical manipulation through developing and implementing GIS Applications.
- Software Support - Provides an in-depth knowledge of application software, computer system configurations, and data driven websites.

The Information Security track will provide a solid background in information security. Fundamentals of information security, offensive and defensive techniques, and security topics such as operating system security, network security design, or other security topics are covered. This track will help prepare students for entry-level positions of network security, auditing and penetration testing, firewall configuration, and computer crime investigation.

The Internet Technologies track prepares students to design, program, and maintain Internet-based services. With specializations in web programming and web server administration, this track will help prepare students for positions developing and maintaining interactive web sites.

The Network Administration track provides the concepts and skills needed to design, set-up, maintain and expand network and telecommunications systems. The curriculum provides specific training in Cisco, and/or Microsoft network systems. Upon completion of the track, the graduate will be qualified to take industry designed and recognized certification examinations. Employment opportunities include entry-level positions in installation and administration of local and wide area networks in medium to large businesses and organizations, and computer network administration positions in small businesses.

The Network Technologies track provides the concepts and skills needed to set up, maintain, and expand networked computer systems. This track requires sequences in Microsoft Windows, Cisco, and UNIX/Linux as well as courses providing deeper insight into Internet protocols and network security. Employment opportunities include entry-level positions in installation and administration of local area networks in medium to large organizations and as computer network administrators in small 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.

- Information Systems - This track is designed with an emphasis on programming for a business environment. Students completing the Information Systems track study basic business concepts, one programming language at an advanced level, and two programming languages at an introductory level.
- Software Development - This track emphasizes computer software development. Students completing the Software Development track study a minimum of two computer programming languages at an advanced level and additional programming language(s) at an introductory level. Flexibility within this track allows students to focus on a specific area of software development by means of the programming languages they choose to study (object-oriented programming, database programming, game development, etc.).

The Computer Science track prepares students interested in an advanced study of computer programming. The curriculum couples the study of programming with computer science concepts such as computational complexity, advanced data structures, and proof techniques. The curriculum may also be used to prepare students for entry into bachelor-level programs in computer science.

The Video Game Design track prepares students to design, develop, and market digital games and simulations. This track focuses on game development with an emphasis on game programming.

Computer Technician Certificate

The Computer Technician Certificate offers students the opportunity to earn a credential demonstrating computer technician competencies. This certificate consists of the core skills that students need to achieve the industry A+ and Security+ certifications. In addition, this certificate will provide a way for professionals currently in the industry to update their technician skills and for new students to show progress in the CIT program.

CIT Fundamentals Certificate

The CIT Fundamentals Certificate offers students the opportunity to earn a credential demonstrating basic competency in the area of computers. The certificate consists of a natural progression of classes that are required for the Associate in Applied Science degree in Computer & Information Technologies. It gives those who are unable, or do not need, to complete a degree a way of demonstrating their level of computer proficiency.
Productivity Software Specialist Certificate
The Productivity Software Specialist Certificate offers students the opportunity to earn a credential demonstrating productivity software competencies. This certificate consists of the core skills that students need to effectively use various productivity software products. In addition, this certificate will provide a way for professionals currently in the industry to update their productivity software skills and for new students to show progress in the CIT program.

Computer Tech Basic Certificate
The Computer Tech Basic Certificate offers students the opportunity to earn a credential demonstrating basic competency in the area of computer information technology. The certificate consists of a natural progression of classes that are required for the Associate in Applied Science degree in Computer & Information Technologies. It gives those who are unable, or do not need, to complete a degree a way of demonstrating their level of computer proficiency. The Computer Tech Basic Certificate prepares students for the CompTIA A+ and Net+ certification exams which are recognized by the computer industry around the world.

Computer Support Technician Certificate
The Computer Support Technician Certificate offers students the opportunity to earn a credential demonstrating computer support technician competencies. The certificate consists of the core skills that students need for computer and end-user support. In addition, this certificate will provide a way for professionals currently in the industry to update their computer support technician skills and for new students to show progress in the CIT program.

Information Security Specialist Certificate
The Information Security Specialist Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of information security. This certificate consists of the core skills that students need to effectively build and maintain information security systems. In addition, this certificate will provide a way for professionals currently in the industry to update their information security skills and for new students to show progress in the CIT program.

Microsoft Network Administrator Certificate
The Microsoft Network Administrator Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of computer networking. This certificate consists of the core skills that students need to effectively build and maintain computer networks. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program.

CISCO Networking Associate Certificate
The CISCO Networking Associate Certificate offers students the opportunity to earn a credential demonstrating computer networking skills. 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.

A+ Certificate
The A+ Certificate offers students the opportunity to earn a credential demonstrating basic competency in the area of computer hardware and software. The certificate consists of one course that prepares students for the CompTIA A+ certification exams which are recognized by the computer industry around the world. It gives those who are unable, or do not need, to complete a degree a way of demonstrating their level of proficiency.

Microsoft Enterprise Administrator Certificate
The Microsoft Enterprise Administrator certificate offers students the opportunity to earn a credential demonstrating skills in the administration and design of Microsoft enterprise networks. This certificate consists of the core skills that students need to effectively plan, build, and maintain a Microsoft network. In addition, this certificate will provide a way for professionals currently in the industry to update their Microsoft network administrator skills.

Programming Certificate
The Software Developer Certificate offers students the opportunity to earn a credential demonstrating programming competencies. This certificate consists of the core skills that students need to effectively develop programs using multiple computer languages. In addition, this certificate...
will provide a way for professionals currently in the industry to update their programming skills and for new students to show progress in the CIT program.

**Web Programming Certificate**

The Web Programming Certificate offers students the opportunity to earn a credential demonstrating web development competencies. This certificate consists of the core skills that students need to effectively develop websites using web programming. In addition, this certificate will provide a way for professionals currently in the industry to update their web programming skills and for new students to show progress in the CIT program.

**Web Administration Certificate**

The Web Administration Certificate offers students the opportunity to earn a credential demonstrating web administration competencies. This certificate consists of the core skills that students need to effectively maintain websites through network and web server administration. In addition, this certificate will provide a way for professionals currently in the industry to update their web administration skills and for new students to show progress in the CIT program.

**Social Media Specialist Certificate**

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

**Digital Forensics Certificate**

The Digital Forensics Certificate offers students the opportunity to earn a credential demonstrating skills in digital forensics. Digital forensics covers the retrieval and investigation of material found in digital devices. Digital material refers to all methods of electronic data storage and transfer devices, including computers, laptops, cell phones, tablets, gaming consoles, and portable storage devices. The goal of digital forensics is to ensure the integrity of that digital material while thoroughly examining it. Digital forensics requires in-depth knowledge of the understanding of the legal as well as the technical aspects of cyber-crime. This certificate consists of the core skills that students need to demonstrate in basic digital forensic skills. It provides an introduction to information security and incident response, forensic preparation and data recovery and analysis. The goal of this certificate is to focus on the principles and techniques used to identify, search, seize, and analyze digital media, and to conduct cyber investigations. In addition, this certificate will provide a way for professionals currently in the industry to update their digital forensic skills and for new students to show progress in the CIT program.

**Mobile Apps Development Certificate**

The Mobile Apps Development Certificate offers students the opportunity to earn a credential demonstrating mobile app 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.

### Associate in Applied Science

**Computer and Information Technologies - 1101017089**

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

**General Education**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>MAT 126</td>
<td>Technical Algebra and Trigonometry (or higher)</td>
<td>3</td>
</tr>
<tr>
<td>MAT 174</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MAT 253</td>
<td>General University Physics</td>
<td>4</td>
</tr>
<tr>
<td>PHY 241</td>
<td>General University Physics Laboratory</td>
<td>4</td>
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</tbody>
</table>

**Web Programming Certificate**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>CIT 111</td>
<td>Computer Hardware and Software</td>
<td>4</td>
</tr>
<tr>
<td>CIT 120</td>
<td>Computational Thinking</td>
<td>3</td>
</tr>
<tr>
<td>CIT 150</td>
<td>Internet Technologies OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 155</td>
<td>Web Page Development OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 170</td>
<td>Database Design Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>CIT 180</td>
<td>Security Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>CIT 291</td>
<td>CIT Capstone</td>
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</table>

**Social Media Specialist Certificate**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 130</td>
<td>Productivity Software</td>
<td>3</td>
</tr>
<tr>
<td>CIT 236</td>
<td>Advanced Data Organization</td>
<td>3</td>
</tr>
<tr>
<td>CIT 171</td>
<td>SQL I</td>
<td>3</td>
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**General Education for Computer Science Track**

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<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ENGR 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>MAT 126</td>
<td>Technical Algebra and Trigonometry (or higher)</td>
<td>3</td>
</tr>
<tr>
<td>PHY 231</td>
<td>General University Physics</td>
<td>4</td>
</tr>
<tr>
<td>PHY 241</td>
<td>General University Physics Laboratory</td>
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**Core Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>CIT 105</td>
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<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 170</td>
<td>Database Design Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>CIT 180</td>
<td>Security Fundamentals</td>
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</table>

**Applications Track – 110101711**

*(Offered at ASC, BLC, BSC, HZC, HEC, HPC, JFC, MDC, MYC, OWC, SEC, WKC)*

**Business Software Specialist**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIT 120</td>
<td>Computational Thinking</td>
<td>3</td>
</tr>
<tr>
<td>CIT 150</td>
<td>Internet Technologies OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 171</td>
<td>SQL I</td>
<td>3</td>
</tr>
<tr>
<td>CIT 291</td>
<td>CIT Capstone</td>
<td>3</td>
</tr>
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}

**Computer Support**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 232</td>
<td>Help Desk Operations</td>
<td>3</td>
</tr>
<tr>
<td>CIT 234</td>
<td>Advanced Productivity Software</td>
<td>3</td>
</tr>
<tr>
<td>CIT 236</td>
<td>Advanced Data Organization</td>
<td>3</td>
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</table>

**Geographic Information Systems**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CIT 125</td>
<td>Introduction to GIS</td>
<td>3</td>
</tr>
<tr>
<td>CIT 225</td>
<td>GIS Software Tools</td>
<td>3</td>
</tr>
<tr>
<td>CIT 229</td>
<td>Selected Topics in GIS</td>
<td>3</td>
</tr>
<tr>
<td>CIT 253</td>
<td>Data-Driven Web Pages: Topic</td>
<td>3</td>
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</table>

**Subtotal**

12

**Total**

65

**Applications Track Course Sequences:**

**Core Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
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<td>Computational Thinking</td>
<td>3</td>
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<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 170</td>
<td>Database Design Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>CIT 180</td>
<td>Security Fundamentals</td>
<td>3</td>
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**Applications Track**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 130</td>
<td>Productivity Software</td>
<td>3</td>
</tr>
<tr>
<td>CIT 150</td>
<td>Internet Technologies OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 171</td>
<td>SQL I</td>
<td>3</td>
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<tr>
<td>CIT 291</td>
<td>CIT Capstone</td>
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**Subtotal**

21

**Total**

65

**OR**

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>GIS 110</td>
<td>Spatial Data Analysis and Map Interpretation</td>
<td>3</td>
</tr>
<tr>
<td>GIS 120</td>
<td>Introduction to Geographic Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>GIS 210</td>
<td>Advanced Geographic Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIT 253</td>
<td>Data-Driven Web Pages: Topic</td>
<td>3</td>
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**Subtotal**

12

**Subtotal**

12

**Subtotal**

12
**Software Support**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CIT 234</td>
<td>Advanced Productivity Software</td>
<td>3</td>
</tr>
<tr>
<td>CIT 236</td>
<td>Advanced Data Organization</td>
<td>3</td>
</tr>
<tr>
<td>CIT 237</td>
<td>Data-Driven Web Pages: Topic</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II OR</td>
<td>3</td>
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<tr>
<td></td>
<td>Oral Communications</td>
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<tr>
<td><strong>Subtotal</strong></td>
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**Computer Science Track - 110101714**

(Offered at BLC, BSC, HPC, HZC, MYC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENG 102</td>
<td>Writing II</td>
<td>3</td>
</tr>
<tr>
<td>MAT 184</td>
<td>Calculus II</td>
<td>3</td>
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<tr>
<td></td>
<td>Approved Computer Science Sequence*</td>
<td>(One course in the sequence is taken as part of the core)</td>
</tr>
<tr>
<td><strong>Track Subtotal</strong></td>
<td></td>
<td><strong>15-17</strong></td>
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**Total** 62-64

**Computer Science Track Course Sequences:**

Offerings vary per college.

**University of Kentucky Computer Science Track Sequence**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CS 215</td>
<td>Introduction to Program Design, Abstraction, and Problem Solving</td>
<td>4</td>
</tr>
<tr>
<td>CS 216</td>
<td>Introduction to Software Engineering</td>
<td>3</td>
</tr>
<tr>
<td>CS 275</td>
<td>Discrete Mathematics</td>
<td>3</td>
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<tr>
<td></td>
<td><strong>Sequence Subtotal</strong></td>
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</tbody>
</table>

**Information Security Track - 110101712**

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<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 Course</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Approved Security Elective Course</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Approved CIT Technical Course(s)</td>
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<tr>
<td><strong>Track Subtotal</strong></td>
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</table>

**Total** 68

**Internet Technologies Track - 110101710**

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

Complete two of the following not taken in the program core:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 150</td>
<td>Internet Technologies</td>
<td>3</td>
</tr>
<tr>
<td>CIT 155</td>
<td>Web Page Development</td>
<td>3</td>
</tr>
<tr>
<td>CIT 157</td>
<td>Web Site Design and Production</td>
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<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td><strong>6</strong></td>
</tr>
<tr>
<td>CIT 253</td>
<td>Data-Driven Web Pages: Topic</td>
<td>3</td>
</tr>
<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>
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<tr>
<td></td>
<td>Completion of Internet Technologies Specialization Sequence*</td>
<td>12</td>
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<tr>
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**Total** 68

*Internet Technologies Track Specialization Sequences:

**Web Programming Specialization Sequence:**

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<th>Course Title</th>
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<tr>
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<td>SQL I</td>
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**Web Administration Specialization Sequence:**

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<td>CIT 255</td>
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<tr>
<td>CIT 214</td>
<td>Microsoft Server Configuration AND</td>
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<tr>
<td>CIT 215</td>
<td>Microsoft Server Administration</td>
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</tr>
<tr>
<td></td>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>CIT 214</td>
<td>Microsoft Server Configuration AND</td>
<td>(3)</td>
</tr>
<tr>
<td>CIT 216</td>
<td>Microsoft Server Advanced Services</td>
<td>(3)</td>
</tr>
<tr>
<td>CIT 217</td>
<td>UNIX/Linux Net Infrastructure AND</td>
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<td>CIT 218</td>
<td>UNIX/Linux Net Infrastructure</td>
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**Network Administration Track - 110101708**

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

Network Administration Specialization Sequence …………….. | 12

**Total** 64-68

**Network Administration Specialization Sequences:**

Microsoft Windows Administration Specialization Sequence

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tr>
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<td>Microsoft Client Configuration</td>
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<td>CIT 214</td>
<td>Microsoft Server Configuration</td>
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<td>CIT 215</td>
<td>Microsoft Server Administration</td>
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<td>CIT 216</td>
<td>Microsoft Server Advanced Series</td>
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Cisco Networking Associate –Specialization Sequence

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<td>CIT 209</td>
<td>Scaling Networks</td>
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<td>CIT 212</td>
<td>Connecting Networks</td>
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**Network Technologies Track - 110101713**

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

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<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>CIT 219</td>
<td>Internet Protocols</td>
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<tr>
<td>CIT 288</td>
<td>Network Security</td>
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<tr>
<td></td>
<td>Approved Level I, Level II, or Level III Network Technologies Specialization Sequence</td>
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**Total** 66-68

Approved Level I Network Technologies Specialization Sequences*

**Microsoft Windows Sequence I**

Any 6 credit hours of course work from the Approved Microsoft Windows Network Specialization Course list …………….. | 6

**UNIX/Linux Sequence I**

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<td>CIT 218</td>
<td>UNIX/Linux Net Infrastructure</td>
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**Cisco Sequence I**

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<tr>
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<th>Course Title</th>
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<td>CIT 167</td>
<td>Routing &amp; Switching Essentials</td>
<td>4</td>
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</table>

**Security Sequence I**

Any 6 credit hours of course work from the Approved Security Specialized Sequence Course list which is not taken as part of another sequence. …………….. | 6

**Sequence Subtotal** | | **4 - 6** |
Academic Curricula

Approved Level II Network Technologies Specialization Sequences*

Microsoft Windows Sequence II
Any 6 credit hours of course work from the Approved Microsoft Windows Network Specialization Course list (after completing the requirements for the Microsoft Windows Specialization Sequence I), or other courses as approved by the CIT Program Coordinator ... 6

UNIX/Linux Sequence II
Choose two:
CIT 255 Web Server Administration OR ... 3
CIT 286 UNIX/Linux OS Security ... (3)

Choose one of the following:
CIT 140 JavaScript I ... 3
CIT 141 PHP I ... 3
CIT 142 C++ I ... 3
CIT 144 Python I ... 3
CIT 145 Perl I ... 3
CIT 149 Java I ... 3
CIT 255 Web Server Administration ... 3
CIT 286 UNIX/Linux OS Security, OR ... 3
University Level I programming languages as approved by local Program Coordinator ... 3-4

Cisco Sequence II
CIT 209 Scaling Networks ... 4
CIT 212 Connecting Networks ... 4
Sequence Subtotal 8

Approved Level III Network Technologies Specialization Sequences*

Internet Servers Administration Sequence
CIT 255 Web Server Administration ... 3
CIT 265 MS Applications Servers ... 3

Microsoft Windows Sequence III
Any 6 credit hours of course work from the Approved Microsoft Windows Network Specialization Course list (after completing the requirements for the Microsoft Windows Sequence II), or other courses as approved by the CIT Program Coordinator ... 6
Sequence Subtotal 6

Programming Track - 110101709
(Offered at BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)
CIT 130 Productivity Software ... 3
Approved CIT Technical Course(s) ... 6
Programming Track Specialization Sequence ... 15
Track Subtotal 24
Total 68

Programming Track Specialization Sequences:

Programming Information Systems Specialization Sequence
CIT 171 SQL I ... 3
Approved Level I, II or III Programming Language ... 3
Approved Programming Management Course ... 3
Approved Programming Business Course ... 3
Subtotal 15

Programming Software Development Specialization Sequence
Approved Level I Programming Language ... 3
Approved Level II Programming Language ... 3
Approved Level II Programming Language ... 3
Approved Level I, II, or III Programming Language ... 3
CIT 253 Data-Driven Web Pages; Topic ... 3
Subtotal 15

Video Game Design Track - 110101715
(Offered at)
CIT/IMD124 Introduction to Game Development ... 3
CIT/IMD272 Game Design Theory ... 3
CIT/IMD274 Seminar in Game Development ... AND
CIT/IMD 221 Computer Graphics AND ... 3
CIT/IMD222 3D Modelling AND ... 3
CIT/IMD223 3D Animation AND ... 3
CIT/IMD273 Game Production AND ... 3
Video Game Design Elective ... 3

Approved Business Courses*
ACT 101 Fundamentals of Accounting ... 3
ACC 201 Financial Accounting I ... 3
BAS 160 Introduction to Business ... 3
IFM 128 Principles of Informatics ... 3
IFM 211 Collaboration Software ... 3
Any business or informatics course approved by Program Coordinator ... 3

Approved Management Courses*
BAS 200 Small Business Management ... 3
BAS 274 Human Resource Management ... 3
BAS 283 Principles of Management ... 3
BAS 287 Supervisory Management ... 3
BAS 288 Personal and Organizational Leadership ... 3
MFG 256 Production Management ... 3
OST 275 Office Management ... 3
QMS 101 Introduction to Quality Systems ... 3
QMS 201 Customer Service Improvement Skills ... 3
Any management course approved by Program Coordinator ... 3

Approved Level I Networking Courses*
CIT 160 Intro to Networking Concepts ... 4
CIT 161 Introduction to Networks ... 4

Approved Network Elective Courses*
CIT 167 Routing & Switching Essentials ... 4
CIT 209 Scaling Networks ... 4
CIT 212 Connecting the Networks ... 4
CIT 214 Microsoft Server Configuration ... 3
CIT 215 Microsoft Server Administration ... 3
CIT 216 Microsoft Server Advanced Services ... 3
CIT 218 UNIX/Linux Net Infrastructure ... 3
CIT 219 Internet Protocols ... 3
CIT 260 Network Hardware Installation and Troubleshooting ... 3
CIT 263 Advanced Microsoft Topics ... 3
Or other Microsoft networking courses as approved by the CIT Program Coordinator ... 3

Approved Security Elective Courses*
CIT 284 Computer Forensics ... 3
CIT 285 Windows OS Security ... 3
CIT 286 UNIX/Linux OS Security ... 3
CIT 287 Cisco OS Security ... 3
CIT 288 Network Security ... 3
Approved Microsoft Windows Network Specialization Courses*
CIT 213  Microsoft Client Configuration ........................................... 3
CIT 214  Microsoft Server Configuration ........................................... 3
CIT 215  Microsoft Server Administration .......................................... 3
CIT 216  Microsoft Server Advanced Services .................................... 3
CIT 265  MS Applications Servers ..................................................... 3
CIT 266  MS Enterprise Administration .............................................. 3

Approved Security Sequence Courses*
CIT 182  Perimeter Defense and Countermeasures ................................ 3
CIT 184  Attacks and Exploits ............................................................ 3
CIT 284  Computer Forensics ............................................................. 3
CIT 285  Windows OS Security ............................................................ 3
CIT 286  UNIX/Linux OS Security ....................................................... 3

Approved Level I Programming Language Courses*
CIT 140  JavaScript I ........................................................................ 3
CIT 141  PHP I .................................................................................. 3
CIT 142  C++ I .................................................................................. 3
CIT 143  C# I .................................................................................... 3
CIT 144  Python I ............................................................................... 3
CIT 145  Perl I ................................................................................... 3
CIT 147  Programming I: Language .................................................... 3
CIT 148  Visual Basic I ...................................................................... 3
CIT 149  Java I .................................................................................. 3
CIT 171  SQL I ................................................................................... 3

Approved Level II Programming Language Courses*
CIT 241  PHP II ................................................................................. 3
CIT 242  C++ II ................................................................................ 3
CIT 243  C# II .................................................................................... 3
CIT 244  Python II .............................................................................. 3
CIT 246  2D Game Development: Language ........................................ 3
CIT 247  Programming II: Language ................................................... 3
CIT 248  Visual Basic II ..................................................................... 3
CIT 249  Java II .................................................................................. 3
CIT 271  SQL II ................................................................................... 3

Approved Level III Programming Language Courses*
CIT 276  3D Game Development: Language ........................................ 3
CIT 277  Programming III: Language ................................................... 3
CIT 278  Visual Basic III .................................................................... 3

Approved Level I Web Programming Language Courses*
CIT 141  PHP I .................................................................................. 3
CIT 148  Visual Basic I ..................................................................... 3
CIT 149  Java I .................................................................................. 3

Approved Level II Web Programming Language Courses*
CIT 241  PHP II ................................................................................. 3
CIT 248  Visual Basic II .................................................................... 3
CIT 249  Java II .................................................................................. 3

Approved Social Media Courses*
CIT 151  Social Media I ..................................................................... 3
CIT 152  Social Media Tools and Technologies .................................... 3
CIT 251  Social Media II .................................................................... 3

Approved Mobile Apps Programming Courses*
CIT 140  JavaScript I ........................................................................ 3
CIT 143  C# I .................................................................................... 3
CIT 149  Java I .................................................................................. 3

Approved Video Game Design Electives*
Level II Programming Language ...................................................... 3
CIT 246  2-D Game Development: [Language TBA] ............................ 3
CIT 276  3-D Game Development: [Language TBA] ............................ 3

Approved CIT Technical Courses*
Additional CIT Course(s) EXCEPT CIT 103 ................................. 1-3
*Or other courses approved by Computer & Information Technologies Program Coordinator

Note: Students may not use one course to fulfill multiple requirements. Students may choose CIT 290 or COE 199 for a maximum of 3 credit hours.

Certificates

Computer Technician - 1101013289
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMG, WKC)
CIT 105  Introduction to Computing .................................................. 3
CIT 111  Computer Hardware and Software ....................................... 4
CIT 180  Security Fundamentals .......................................................... 4
Total 14

CIT Fundamentals - 1101013309
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMG, WKC)
CIT 105  Introduction to Computing .................................................. 3
CIT 111  Computer Hardware and Software ....................................... 4
CIT 120  Computational Thinking ....................................................... 3
CIT 150  Internet Technologies OR .................................................... 3
CIT 155  Web Page Development OR ................................................ 3
CIT 157  Web Site Design and Production .......................................... 3
CIT 170  Database Design Fundamentals .......................................... 3
CIT 180  Security Fundamentals .......................................................... 3
Total 26

Productivity Software Specialist - 1101013299
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, 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

Computer Tech Basic - 1101013319
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMG, WKC)
CIT 105  Introduction to Computers .................................................. 3
CIT 111  Computer Hardware and Software ....................................... 4
Total 11

Computer Support Technician - 1101013329
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, WKC)
CIT 130  Productivity Software ............................................................. 3
CIT 111  Computer Hardware and Software ....................................... 4
CIT 232  Help Desk Operations ............................................................ 3
CIT 234  Advanced Productivity Software .......................................... 3
CIT 236  Advanced Data Organization Software ................................ 3
Total 16

Certificates

Total 16
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<tr>
<th>Information Security Specialist - 1101013339</th>
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<td>CTT 180 Security Fundamentals ................</td>
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<td>CTT 182 Perimeter Defense .....................</td>
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<td>CTT 216 Microsoft Server Advanced Services ........</td>
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<td>Internet Protocols ................................</td>
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<td>CTT 288 Approved Level I and Level II Network Technologies ........</td>
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<td>Microsoft Windows Course Sequence OR ..........</td>
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<tr>
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<tr>
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<td>CTT 214 Microsoft Server Configuration ..........</td>
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<td>CTT 216 Microsoft Server Advanced Services ..........</td>
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<tr>
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Computerized Manufacturing 
and Machining

Work activities in machine shop involve applying knowledge of machine capabilities, the properties of materials, and shop practices to set-up and operate various machines. The skills needed to position work pieces, adjust machines, and verify the accuracy of machine functions and finished 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, HEC, HPC, HZC, MDC, MYC, OWC, SEC, SMC, WKC)

General Education:

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Technical:

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<td>CMM 118 Metrology/Control Charts</td>
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<td>CMM 120 Applied Machining I AND</td>
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<td>CMM 122 Applied Machining II OR</td>
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<tr>
<td>CMM 124 Applied Machining</td>
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<td>CMM 130 Manual Programming AND</td>
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<tr>
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<td>BRX 110 Basic Blueprint Reading for Machinist AND</td>
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<td>BRX 112 Blueprint Reading for Machinist</td>
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</table>

Total Credits: 65-68

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

Diploma

CNC Machinist - 4805034069

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

General Education:

Area 1:

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Area 2:

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<td>MAT 126</td>
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Technical:

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<td>CMM 114 Fundamentals of Machine Tools</td>
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<td>CMM 118 Metrology/Control Charts</td>
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<td>CMM 120 Applied Machining I AND</td>
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</tr>
<tr>
<td>CMM 122 Applied Machining II OR</td>
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</tr>
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<td>CMM 124 Applied Machining</td>
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<td>CMM 130 Manual Programming AND</td>
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<tr>
<td>CMM 132 CAD/CAM/CNC OR</td>
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<tr>
<td>CMM 138 Intro to Programming &amp; CNC Machines</td>
<td>6</td>
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<tr>
<td>CMM 210 Industrial Machining I AND</td>
<td>3</td>
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<td>CMM 212 Industrial Machining II OR</td>
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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 AND ............. 2
BRX 210 Mechanical Blueprint Reading for Machinist OR ........ 2
BRX 112 Blueprint Reading for Machinist ................................ (4)  
Subtotal: 49-52
Total Credits: 56-59

Machinist - 4805034079
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

General Education:

Area 1:
Written Communication, Oral Communications, or Heritage/ Humanities ............................................. 3

Area 2:
MAT 116 Technical Mathematics OR .................................. 3
MAT 126 Technical Algebra and Trigonometry or Higher ........ (3)  
Subtotal 6
Technical:
Computer/Digital Literacy* ............................................. 0-3
CMM 110 Fundamentals of Machine Tools A AND .................. 3
CMM 112 Fundamentals of Machine Tools B OR .................... 4
CMM 114 Fundamentals of Machine Tools ................................ (7)
CMM 118 Metrology/Control Charts ..................................... 2
CMM 120 Applied Machining I AND .................................... 3
CMM 122 Applied Machining II OR ..................................... 3
CMM 124 Applied Machining ............................................. (6)
CMM 130 Manual Programming OR .................................... 3
CMM 134 Manual Programming/CAD/CAM/CNC OR ................ (6)
CMM 138 Intro to Programming & CNC Machines ................ (6)
CMM 210 Industrial Machining I AND .................................... 3
CMM 212 Industrial Machining II OR .................................... 3
CMM 214 Industrial Machining ............................................. (6)
CMM 220 Advanced Industrial Machining I AND .................. 4
CMM 222 Advanced Industrial Machining II OR .................... 2
CMM 224 Advanced Industrial Machining ................................ (6)
BRX 110 Basic Blueprint Reading for Machinist AND ............. 2
BRX 210 Mechanical Blueprint Reading for Machinist OR ........ 2
BRX 112 Blueprint Reading for Machinist ................................ (4)  
Subtotal: 34-40
Total Credits: 41-47

Certificates

Exploratory Machining I - 4805033199
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

CMM 110 Fundamentals of Machine Tools A AND .................. 3
CMM 112 Fundamentals of Machine Tools B AND .................... 4
CMM 114 Fundamentals of Machine Tools AND ........................ (7)
CMM 130 Manual Programming AND .................................... 3
CMM 132 CAD/CAM/CNC AND ........................................... (3)
CMM 134 Manual Programming/CAD/CAM/CNC AND .......... (3)
CMM 136 Intro to Programming & CNC Machines ................ (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)
BRX 110 Basic Blueprint Reading for Machinist OR ............... 2
BRX 112 Blueprint Reading for Machinist .............................. 2
MAT 116 Technical Mathematics OR .................................... 3
MAT 126 Technical Algebra and Trigonometry or Higher .......... (3)  
Total Credits: 26-31

Machine Tool Operator I - 4805033109
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

CMM 110 Fundamentals of Machine Tools A AND .................. 3
CMM 112 Fundamentals of Machine Tools B OR .................... 4
CMM 114 Fundamentals of Machine Tools ................................ (7)
CMM 118 Metrology/Control Charts ..................................... 2
CMM 120 Applied Machining I AND .................................... 3
CMM 122 Applied Machining II OR ..................................... 3
CMM 124 Applied Machining ............................................. (6)
CMM 130 Manual Programming OR .................................... 3
CMM 134 Manual Programming/CAD/CAM/CNC OR ................ (6)
CMM 138 Intro to Programming & CNC Machines ................ (6)
BRX 110 Basic Blueprint Reading for Machinist OR ............. 2
BRX 112 Blueprint Reading for Machinist ................................ (4)  
Total Credits: 15-20

Machine Tool Operator II - 4805033119
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

CMM 110 Fundamentals of Machine Tools A AND .................. 3
CMM 112 Fundamentals of Machine Tools B OR .................... 4
CMM 114 Fundamentals of Machine Tools ................................ (7)
CMM 118 Metrology/Control Charts ..................................... 2
CMM 120 Applied Machining I AND .................................... 3
CMM 122 Applied Machining II OR ..................................... 3
CMM 124 Applied Machining ............................................. (6)
CMM 130 Manual Programming OR .................................... 3
CMM 134 Manual Programming/CAD/CAM/CNC OR ................ (6)
CMM 138 Intro to Programming & CNC Machines ................ (6)
BRX 110 Basic Blueprint Reading for Machinist OR ............. 2
BRX 112 Blueprint Reading for Machinist ................................ (4)  
Total Credits: 23-31

CNC Operator - 4805033129
(Offered at BLC, HPC, JFC, SEC, SMC, WKC)

CMM 110 Fundamentals of Machine Tools A AND .................. 3
CMM 112 Fundamentals of Machine Tools B OR .................... 4
CMM 114 Fundamentals of Machine Tools ................................ (7)
CMM 118 Metrology/Control Charts ..................................... 2
CMM 130 Manual Programming AND .................................... 3
CMM 132 CAD/CAM/CNC OR ........................................... (3)
CMM 134 Manual Programming/CAD/CAM/CNC OR .............. (6)
CMM 138 Intro to Programming & CNC Machines ................ (6)
CMM 2301 Intro to Conversational Programming AND ............ 3
CMM 2302 Conversational Editing and Subroutines OR .......... 3
CMM 230 Conversational Programming OR ............................. (6)
CMM 234 CNC Machines and Coding Practices ....................... (6)
BRX 110 Basic Blueprint Reading for Machinist OR ............... 2
BRX 112 Blueprint Reading for Machinist .............................. 2
MAT 116 Technical Mathematics OR .................................... 3
MAT 126 Technical Algebra and Trigonometry or Higher .......... (3)  
Total Credits: 26-31

129
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 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 - 4602014019
(Offered at ASC, BLC, BSC, ELC, JFC, SEC, MYC, OWC, SEC, SMC, WKC)

General Education Requirements:
Area 1: Written Communication, Oral Communications, or Humanities/Heritage 3
Area 2: Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning 3
Subtotal 6

Technical Requirements:
Digital Literacy course OR demonstrated competency 0-3
BRX 220 Blueprint Reading for Construction 3
BRX 120 Basic Blueprint Reading 3
CAR 150 Construction Formwork 3
CAR 150 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
Total 18

Subtotal 42-47

Total 60-65

Note: Digital Literacy must be demonstrated either by competency exam or by completing an approved digital literacy course.

*Technical Electives: (This list is not all inclusive. Other courses [technical or general education] may be taken as approved by Construction Technology instructor.)
BRX 120 Basic Blueprint Reading 3
BRX 220 Blueprint Reading for Construction 3
BRX 120 Basic Blueprint Reading 3
Total Credits 18

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

Diploma
Construction Carpenter - 4602014019
(Offered at ASC, BLC, BSC, ELC, JFC, SEC, MYC, OWC, SEC, SMC, WKC)

General Education Requirements:
Area 1: Written Communication, Oral Communications, or Humanities/Heritage 3
Area 2: Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning 3
Subtotal 6

Technical Requirements:
Digital Literacy course OR demonstrated competency 0-3
BRX 220 Blueprint Reading for Construction 3
BRX 120 Basic Blueprint Reading 3
BRX 120 Basic Blueprint Reading 3
Total Credits 18

Subtotal 42-47

Total 48-53

Note: WPP200 or EFM 100 may be taken for 3 credit hours of Social/Behavioral Sciences to meet the Diploma General Education requirements.
**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>Title</th>
<th>Credits</th>
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<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>1-6</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>
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**Finish Carpenter - 4602014029**  
*(Offered at JFC)*

**General Education Requirements:** (6-9 credit hours)

<table>
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<tr>
<th>Area 2: Social/Behavioral Sciences, Natural Sciences or Quantitative Reasoning</th>
<th>Credits</th>
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<tbody>
<tr>
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**Subtotal** 6

Note: WPP 200 or EFM 100 may be taken for 3 credit hours of Social/Behavioral Sciences to meet the Diploma General Education requirements.

**Technical Requirements:**

- Digital Literacy course OR demonstrated competency: 0-3
- INF 105 Introduction to Painting: 2
- INF 111 Advanced Painting: 2
- INF 115 Introduction to Wall covering: 2
- INF 121 Advanced Wall Covering: 2
- INF 125 Introduction to Drywall: 2
- INF 131 Advanced Drywall: 2
- INF 205 Introduction to Acoustical Carpentry: 3
- INF 211 Advanced Acoustical Carpentry: 2
- INF 220 Customer Relations: 2
- INF 298 Practicum (or): 2
- CAR 299 Cooperative Education in Construction: 2-4

**Subtotal** 24-29

**Total Credits** 30-35

Note: Digital Literacy must be demonstrated either by competency exam or by completing an approved digital literacy course.

**Certificates**

**Carpenter Helper - 4602013109**  
*(Offered at ASC, BLC, BSC, ELC, HPC, JFC, MYC, OW, SEC, SMC, WKC)*

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<td>Intro to Construction</td>
<td>3</td>
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<td>CAR 127</td>
<td>Intro to Construction-Lab</td>
<td>1</td>
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<tr>
<td>CAR 140</td>
<td>Surveying &amp; Foundations</td>
<td>3</td>
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<td>CAR 141</td>
<td>Surveying &amp; Foundations-Lab</td>
<td>2</td>
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<tr>
<td>CAR 190</td>
<td>Light Frame Construction I – Floors and Walls</td>
<td>3</td>
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<tr>
<td>CAR 191</td>
<td>Light Frame Construction I – Floors and Walls (Lab)</td>
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**Total Credits** 17

**Construction Forms Helper - 4602013029**  
*(Offered at ASC, BLC, BSC, ELC, HPC, JFC, MYC, OW, SEC, SMC, WKC)*

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<tr>
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<td>CAR 126</td>
<td>Intro to Construction</td>
<td>3</td>
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<tr>
<td>CAR 127</td>
<td>Intro to Construction-Lab</td>
<td>1</td>
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<tr>
<td>CAR 150</td>
<td>Construction Formwork</td>
<td>3</td>
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<tr>
<td>CAR 151</td>
<td>Construction Formwork - Lab</td>
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**Total Credits** 18

**Suggested Technical Electives:**

(This list is not all inclusive. Other courses [technical or general education] may be taken as approved by Construction Technology Program Coordinator.)

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**Residential Carpenter - 4602013059**  
*(Offered at ASC, BLC, BSC, ELC, HPC, JFC, MYC, OW, SEC, SMC, WKC)*

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<td>BRX 220</td>
<td>Blueprint Reading for Construction</td>
<td>3</td>
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<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>CAR 140</td>
<td>Surveying &amp; Foundations</td>
<td>3</td>
</tr>
<tr>
<td>CAR 141</td>
<td>Surveying &amp; Foundations-Lab</td>
<td>2</td>
</tr>
<tr>
<td>CAR 190</td>
<td>Light Frame Construction I – Floors and Walls</td>
<td>3</td>
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<tr>
<td>CAR 191</td>
<td>Light Frame Construction I – Floors and Walls (Lab)</td>
<td>2</td>
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<tr>
<td>CAR 196</td>
<td>Light Frame Construction II – Ceilings and Roofs</td>
<td>3</td>
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<tr>
<td>CAR 197</td>
<td>Light Frame Construction II – Ceilings and Roofs (Lab)</td>
<td>2</td>
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<tr>
<td>CAR 200</td>
<td>Light Frame Construction III – Exterior and Interior Finish</td>
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<td>CAR 201</td>
<td>Light Frame Construction III – Exterior and Interior Finish (Lab)</td>
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<tr>
<td>CAR 240</td>
<td>Light Frame Construction IV – Cabinetry and Trim Carpentry Techniques</td>
<td>3</td>
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<tr>
<td>CAR 241</td>
<td>Light Frame Construction IV – Cabinetry and Trim Carpentry Techniques (Lab)</td>
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**Total Credits** 32

**Residential Roofer - 4602013069**  
*(Offered at ASC, BLC, BSC, ELC, HPC, JFC, MYC, OW, SEC, SMC, WKC)*

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<td>3</td>
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<tr>
<td>CAR 127</td>
<td>Intro to Construction-Lab</td>
<td>1</td>
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<tr>
<td>CAR 196</td>
<td>Light Frame Construction II – Ceilings and Roofs</td>
<td>3</td>
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<tr>
<td>CAR 197</td>
<td>Light Frame Construction II – Ceilings and Roofs (Lab)</td>
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**Total Credits** 12

**Residential Site Layout Assistant - 4602013079**  
*(Offered at ASC, BLC, BSC, ELC, HPC, JFC, MYC, OW, SEC, SMC, WKC)*

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<td>Intro to Construction</td>
<td>3</td>
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<tr>
<td>CAR 127</td>
<td>Intro to Construction-Lab</td>
<td>1</td>
</tr>
<tr>
<td>CAR 140</td>
<td>Surveying &amp; Foundations</td>
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</tr>
<tr>
<td>CAR 141</td>
<td>Surveying &amp; Foundations-Lab</td>
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**Total Credits** 15
*Suggested Technical Electives:  
(This list is not all inclusive. Other courses (technical or general education) may be taken as approved by Construction Technology Program Coordinator.)

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</tr>
<tr>
<td>BRX 220</td>
<td>Blueprint Reading for Construction</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 190</td>
<td>Light Frame Construction I-Floors and Walls</td>
<td>2</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 Walls</td>
<td>3</td>
</tr>
<tr>
<td>CAR 197</td>
<td>Light Frame Construction II-Ceilings and Walls</td>
<td>2</td>
</tr>
<tr>
<td>CAR 198</td>
<td>Special Topics in Construction</td>
<td>1-6</td>
</tr>
<tr>
<td>CAR 200</td>
<td>Light Frame Construction III-Exterior and Interior Finish</td>
<td>3</td>
</tr>
<tr>
<td>CAR 201</td>
<td>Light Frame Construction III-Exterior and Interior Finish-Lab</td>
<td>2</td>
</tr>
<tr>
<td>CAR 240</td>
<td>Light Frame Construction IV-Cabinetry and Trim Carpenter Techniques</td>
<td>3</td>
</tr>
<tr>
<td>CAR 241</td>
<td>Light Frame Construction IV-Cabinetry and Trim Carpenter Techniques-Lab</td>
<td>2</td>
</tr>
<tr>
<td>DLC 100</td>
<td>Digital Literacy</td>
<td>3</td>
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</table>

*Suggested General Education Electives:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEC 200</td>
<td>Technical Communications</td>
<td>3</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>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>
</tr>
<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.

---

**Rough Carpenter - 4602013089**  
(Offered at ASC, BLC, BSC, ELC, HPC, JFC, MYC, OWC, SEC, SMC, WKC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BRX 220</td>
<td>Blueprint Reading for Construction</td>
<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 - 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>Total Credits</td>
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<td>22</td>
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</table>

**Basic Carpenter - 4602013139**  
(Offered at ASC, BLC, BSC, ELC, HPC, JFC, MYC, OWC, SEC, SMC, WKC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAR 126</td>
<td>Intro to Construction Lab.</td>
<td>3</td>
</tr>
<tr>
<td>CAR 127</td>
<td>Electives: Any five [5] additional credits, program or otherwise</td>
<td>5</td>
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<tr>
<td>Total Credits</td>
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**Acoustical Carpenter - 4602013119**  
(Offered at ASC, BLC, ELC, JFC, SEC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</tr>
</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>
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<tr>
<td>Total Credits</td>
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**Dry Waller - 4602013039**  
(Offered at ASC, ELC, JFC, SEC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<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>Electives: *Technical Electives</td>
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<td>Total Credits</td>
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**Painter, Interior Finish - 4602013049**  
(Offered at BSC, JFC, SEC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</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>Electives: *Technical Electives</td>
<td>2</td>
<td></td>
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<tr>
<td>Total Credits</td>
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**Painter, Paper Hanger - 4602013129**  
(Offered at BSC, JFC, SEC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</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 Wallcovering</td>
<td>2</td>
</tr>
<tr>
<td>INF 121</td>
<td>Advanced Wallcovering</td>
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<tr>
<td>Total Credits</td>
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**Green Building Technology - 4602013159**  
(Offered at ASC, JFC, OWC, SEC, WKC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRX 220</td>
<td>Blueprint Reading for Construction</td>
<td>3</td>
</tr>
<tr>
<td>CAR 270</td>
<td>Green Building</td>
<td>3</td>
</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>
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<tr>
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<td>Total Credits</td>
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**NCCER Skills Standard Level I - 4602013169**  
(Offered at HZC, OWC, SEC, WKY)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRX 220</td>
<td>Blueprint Reading for Construction OR</td>
<td>3</td>
</tr>
<tr>
<td>BRX 2201</td>
<td>Basic Construction Prints AND</td>
<td>1</td>
</tr>
<tr>
<td>BRX 2202</td>
<td>Construction Blueprints</td>
<td>2</td>
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<tr>
<td>CAR 126</td>
<td>Introduction to Construction</td>
<td>3</td>
</tr>
<tr>
<td>CAR 127</td>
<td>Introduction to Construction Lab</td>
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<tr>
<td>CAR 190</td>
<td>Light Frame Construction I - Floors and Walls</td>
<td>3</td>
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<tr>
<td>CAR 191</td>
<td>Light Frame Construction I - Floors and Walls Lab</td>
<td>2</td>
</tr>
<tr>
<td>CAR 196</td>
<td>Light Frame Construction II - Ceilings and Roofs</td>
<td>3</td>
</tr>
<tr>
<td>CAR 197</td>
<td>Light Frame Construction II - Ceilings and Roofs Lab</td>
<td>2</td>
</tr>
<tr>
<td>CAR 2001</td>
<td>Light Frame Construction III - Interior AND</td>
<td>1</td>
</tr>
<tr>
<td>CAR 211</td>
<td>Light Frame Construction III - Lab Interior OR</td>
<td>1</td>
</tr>
<tr>
<td>CAR 2002</td>
<td>Light Frame Construction III - Exterior AND</td>
<td>1</td>
</tr>
<tr>
<td>CAR 2012</td>
<td>Light Frame Construction III - Lab Exterior OR</td>
<td>1</td>
</tr>
<tr>
<td>CAR 200</td>
<td>Light Frame Construction III AND</td>
<td>3</td>
</tr>
<tr>
<td>CAR 2101</td>
<td>Light Frame Construction III-Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>CAR 299</td>
<td>Cooperative Education in Construction</td>
<td>2</td>
</tr>
<tr>
<td>ISX 100</td>
<td>Industrial Safety OR Approved Safety course by Program Coordinator</td>
<td>3</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>24-29</td>
</tr>
</tbody>
</table>
Knowledge of the theories of hair, skin, and nail care is coupled with practice of the various techniques used in salons.

Any person enrolling in a cosmetology program shall meet KCTCS admission requirements and complete an application for enrollment provided by the Board of Hairdressers and Cosmetologists. As required by the Board of Hairdressers and Cosmetologists, the applicant shall furnish proof that he or she has earned a high diploma or its equivalent.

Documentation of digital literacy as defined by KCTCS is required prior to graduation for the diploma credential.

Progression in the Cosmetology program is contingent upon achievement of a grade of "C" or better in each technical course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

After successful completion of the prescribed 1800 hours of instruction and the six-month apprenticeship, program graduates are eligible to take the examination administered by the Kentucky Board of Hairdressers and Cosmetology to become licensed cosmetologists.

After successful completion of the prescribed 1000 hours of instruction, program graduates are eligible to take the examination administered by the Kentucky Board of Hairdressers and Cosmetology to become licensed cosmetology instructors.

After successful completion of the prescribed 600 hours of instruction, program graduates are eligible to take the examination administered by the Kentucky Board of Hairdressers and Cosmetology to become licensed nail technicians.

After successful completion of the prescribed 1000 hours of instruction, program graduates are eligible to take the examination administered by the Kentucky Board of Hairdressers and Cosmetology to become licensed estheticians.

## Diploma

---

### Cosmetologist - 1204014019

*(Offered at ASC, BLC, BSC, GTW, HZC, JFC, MYC, SMC, WKC)*

<table>
<thead>
<tr>
<th>General Education:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Area 1 = Written Communication, Oral Communications, or Humanities/Heritage</td>
<td>3</td>
</tr>
<tr>
<td>Area 2 = Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>6</strong></td>
</tr>
</tbody>
</table>

**NOTE:** Documentation of digital literacy as defined by KCTCS is required prior to graduation.

### Technical Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>COS 114</td>
<td>Cosmetology I</td>
<td>14</td>
</tr>
<tr>
<td>COS 116</td>
<td>Cosmetology II</td>
<td>14</td>
</tr>
<tr>
<td>COS 218</td>
<td>Cosmetology III</td>
<td>14</td>
</tr>
<tr>
<td>COS 220</td>
<td>Cosmetology IV</td>
<td>12</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>54</strong></td>
<td></td>
</tr>
</tbody>
</table>

### Electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>COS 135</td>
<td>Individual Requirements I</td>
<td>1-8</td>
</tr>
<tr>
<td>COS 235</td>
<td>Individual Requirements II</td>
<td>1-8</td>
</tr>
</tbody>
</table>

| Total Credits | 60 |

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### Criminal Justice

The Criminal Justice Program prepares the student for entry level work in the fields of law enforcement, corrections, court systems, loss safety and prevention, and other related occupations. The Criminal Justice vocations evolved from jobs with minimal requirements to employment positions that require complex knowledge and skills. Criminal Justice Program Curriculum provides the student with a foundation of theory, principles, and techniques employed by the criminal justice agencies. Graduates who complete an AAS Criminal Justice Degree may seek job opportunities on the federal, state, county, municipal levels of government, and private sectors of the criminal justice field.

Progression in the Criminal Justice Program is contingent upon the achievement of a grade of "C" or better in each CRJ course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).
The grading scale for criminal justice courses with a Pass/Fail scale, the grade of “P or Pass” meets the requirement for the Criminal Justice Program.

Criminal Justice Program Certificates are embedded in the Criminal Justice AAS Degree. The certificates are not stand alone certificates; therefore a student cannot receive financial aid for just a certificate. The student must be a Criminal Justice AAS Degree seeker in order to obtain program certificates.

Criminal background checks are currently not required for the Criminal Justice AAS Program; however students should understand that certain disqualifiers may hinder employment in the field of criminal justice.

Such disqualifiers include, but are not limited to the following: criminal convictions, substance abuse, offensive social media activities, excessive traffic related offenses, and visible tattoos and body piercings. Students seeking employment in the criminal justice field or related field should research the requirements and disqualifiers of their desired areas or agencies of employment.

## Associate in Applied Science

### Criminal Justice - 4301037039

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

**Available Completely Online**

**General Education:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II</td>
<td>3</td>
</tr>
<tr>
<td>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>POL 101</td>
<td>American Government OR</td>
<td>3</td>
</tr>
<tr>
<td>PSY 110</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 101</td>
<td>Introduction to Sociology</td>
<td>3</td>
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</table>

**Technical Elective**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRJ 201</td>
<td>Introduction to Criminalistics</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 202</td>
<td>Issues and Ethics in Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 204</td>
<td>Criminal Investigations</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 216</td>
<td>Criminal Law</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 217</td>
<td>Criminal Procedures</td>
<td>3</td>
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<tr>
<td>CRJ 295</td>
<td>Criminal Justice Capstone</td>
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</table>

**Subtotal:** 33

**Technical Core Requirements:**

<table>
<thead>
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<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CRJ 100</td>
<td>Introduction to Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 203</td>
<td>Community Corrections/Probation &amp; Parole</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 208</td>
<td>Delinquency and the Juvenile Justice System</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 210</td>
<td>Physical Security Technology and Systems</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 211</td>
<td>Liability and Legal Issues</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 215</td>
<td>Introduction to Law Enforcement</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 218</td>
<td>Police Supervision</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 219</td>
<td>Police Recruiting Defensive Tactics</td>
<td>4</td>
</tr>
<tr>
<td>CRJ 220</td>
<td>Introduction to Computer Forensics</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 222</td>
<td>Prison and Jail Administration</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 224</td>
<td>Basic Traffic Investigation</td>
<td>4</td>
</tr>
<tr>
<td>CRJ 225</td>
<td>Driving and Traffic Enforcement for Law Enforcement</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 230</td>
<td>Criminal Justice Courtroom Procedures</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 231</td>
<td>Legal Aspects of Corrections</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 240</td>
<td>Introduction to Corporate and Industrial Security</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 245</td>
<td>Introduction to Business and Financial Fraud</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 277</td>
<td>Introduction to Criminology</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 279</td>
<td>Terrorism and Political Violence</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 290</td>
<td>Internship in Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 299</td>
<td>Selected Topics in Criminal Justice</td>
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</tr>
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**Subtotal:** 9

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### Law Enforcement Track - 430103702

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

**Available Completely Online**

**Required Course:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRJ 215</td>
<td>Introduction to Law Enforcement</td>
<td>3</td>
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</table>

**Subtotal:** 3

**Track Electives: (Choose 6 credit hours from the following courses)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CRJ 108</td>
<td>Advanced Firearms and Less Than Lethal Weapons</td>
<td>4</td>
</tr>
<tr>
<td>CRJ 201</td>
<td>Introduction to Criminalistics</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 208</td>
<td>Delinquency and the Juvenile Justice System</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 218</td>
<td>Police Supervision</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 219</td>
<td>Police Recruiting Defensive Tactics</td>
<td>4</td>
</tr>
<tr>
<td>CRJ 220</td>
<td>Introduction to Computer Forensics</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 224</td>
<td>Basic Traffic Investigation</td>
<td>4</td>
</tr>
<tr>
<td>CRJ 225</td>
<td>Driving and Traffic Enforcement for Law Enforcement</td>
<td>4</td>
</tr>
<tr>
<td>CRJ 230</td>
<td>Criminal Justice Courtroom Procedures</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 277</td>
<td>Introduction to Criminology</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 279</td>
<td>Terrorism and Political Violence</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 290</td>
<td>Internship in Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 299</td>
<td>Selected Topics in Criminal Justice</td>
<td>1</td>
</tr>
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</table>

**Subtotal:** 9

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### Corrections Track - 430103703

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

**Required:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CRJ 102</td>
<td>Introduction to Corrections</td>
<td>3</td>
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**Subtotal:** 3

**Track Electives: (Choose 6 credit hours from the following courses)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRJ 203</td>
<td>Community Corrections/Probation &amp; Parole</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 208</td>
<td>Delinquency and the Juvenile Justice System</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 220</td>
<td>Introduction to Computer Forensics</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 222</td>
<td>Prison and Jail Administration</td>
<td>3</td>
</tr>
</tbody>
</table>
CRJ 231 Legal Aspects of Corrections ........................................... 3
CRJ 277 Introduction to Criminology ............................................ 3
CRJ 290 Internship in Criminal Justice ........................................ 3
CRJ 299 Selected Topics in Criminal Justice .................................. 1-3
Subtotal ................................................................. 9
Technical Elective ......................................................... 0-3
Subtotal ................................................................. 0-3
Total Credits ......................................................... 61-64

Security and Loss Prevention Track - 430103704
(Offered at ASC, BLC, ELC, GTW, HPC, HZC, JFC, MYC, OWC, SEC, SMC, WKC)
Available Completely Online

Required course:
CRJ 110 Principles of Asset Protection ........................................ 3
Subtotal ................................................................. 3

Track Electives: (Choose 6 credit hours from the following courses)
CRJ 210 Physical Security Technology and Systems ................................ 3
CRJ 211 Liability and Legal Issues ............................................. 3
CRJ 220 Introduction to Computer Forensics ................................... 3
CRJ 240 Introduction to Corporate and Industrial Security .................... 3
CRJ 245 Introduction to Business and Financial Fraud ......................... 3
CRJ 290 Internship in Criminal Justice ........................................ 3
CRJ 299 Selected Topics in Criminal Justice .................................. 1-3
Subtotal ................................................................. 9
Technical Elective ......................................................... 0-3
Subtotal ................................................................. 0-3
Total Credits ......................................................... 61-64

NOTE: CRJ 107 Introduction to Firearms may be used as a technical elective only. Course will not substitute for track elective.

Certificates

Computer Forensics - 4301033019
(Offered ASC, BLC, ELC, GTW, HPC, HZC, MDC, MYC, OWC, SMC, WKC)

CRJ 100 Introduction to Criminal Justice OR .................................. 3
CRJ 204 Criminal Investigations ....................................................... (3)
CRJ 220 Introduction to Computer Forensics for Criminal Justice .............. 3
CRJ 230 Criminal Justice Courtroom Procedures ................................... 3
CIT 105 Introduction to Computers ..................................................... 3
CIT 111 Computer Hardware and Software ....................................... 4
CIT 160 Introduction to Networking Concepts OR .................................. 4
CIT 161 Introduction to Networks ........................................................ (4)
CIT 180 Security Fundamentals ......................................................... 3
Total: ......................................................................................... 23

Criminal Justice Core – 4301033029
(Offered ASC, BLC, ELC, GTW, HPC, MDC, MYC, SEC, SMC, WKC)

CRJ 100 Introduction to Criminal Justice ........................................ 3
CRJ 202 Issues and Ethics in Criminal Justice .................................... 3
CRJ 204 Criminal Investigations ......................................................... 3
CRJ 216 Criminal Law ................................................................. 3
CRJ 217 Criminal Procedures ......................................................... 3
Total: ......................................................................................... 15

Corrections - 430103309
(Offered ASC, BLC, ELC, GTW, HPC, MDC, MYC, SEC, SMC, WKC)

CRJ 102 Introduction to Corrections .................................................... 3
CRJ 203 Community Corrections: Probation and Parole ......................... 3
CRJ 208 Delinquency and the Juvenile Justice System ............................ 3
CRJ 222 Prison and Jail Administration ............................................. 3
CRJ 231 Legal Aspects of Corrections ................................................ 3
Total: ......................................................................................... 15

Law Enforement – 4301033049
(Offered ASC, BSC, BLC, ELC, GTW, HPC, MDC, MYC, SEC, SMC, WKC)

CRJ 201 Introduction to Criminalistics OR ........................................ 3
CRJ 204 Criminal Investigations ......................................................... (3)
CRJ 208 Delinquency and Juvenile Justice System ................................. 3
CRJ 211 Liability and Legal Issues ..................................................... 3
CRJ 215 Introduction to Law Enforcement ........................................... 3
CRJ 218 Police Supervision ............................................................ 3
Total: ......................................................................................... 15

Security and Loss Prevention – 4301033059
(Offered ASC, BSC, BLC, ELC, GTW, HPC, MYC, SEC, SMC, WKC)

CRJ 110 Principles of Asset Protection .............................................. 3
CRJ 210 Physical Security Technology & Systems ................................. 3
CRJ 211 Liability and Legal Issues ..................................................... 3
CRJ 220 Introduction to Computer Forensics ....................................... 3
CRJ 240 Introduction to Corporate Security ......................................... 3
Total: ......................................................................................... 15

Advanced Law Enforcement – 4301033069
(Offered ASC, BSC, BLC, ELC, GTW, HPC, MDC, MYC, OWC, SEC, SMC)

CRJ 107 Introduction to Firearms ...................................................... 1
CRJ 108 Advanced Firearms and Less Than Lethal Weapons .................. 4
CRJ 204 Criminal Investigations ......................................................... 3
CRJ 215 Introduction to Law Enforcement ........................................... 3
CRJ 219 Police Recruit Defensive Tactics ............................................ 4
CRJ 224 Basic Traffic Collision Investigation ....................................... 4
CRJ 225 Driving and Traffic Enforcement for Law Enforcement ............ 4
Total: ......................................................................................... 23

Culinary Arts

The KCTCS Culinary Arts program is designed to prepare students for careers in the Culinary Arts, Food and Beverage Management, Restaurant Management, Catering, Institutional Food Service, and as Professional Chefs. Course work covers a broad spectrum: the preparation of basic and specialized foods, catering and special event planning, international cuisine, baking and pastry arts, nutrition, sanitation, management techniques and functions, cost control, purchasing and culinary fundamentals. Students work in commercial kitchen/laboratory and dining room through the course of study. The program uses the teaching philosophy of the American Culinary Federation, the Academy of Chefs, the National Restaurant Association Education Foundation, and the American Personal Chef Association. The program competencies are those of the American Culinary Federation.

Progression in the Culinary Arts program is contingent upon achievement of a grade of “C” or better in each CUL and NFS courses.

Associate in Applied Science

Culinary Arts - 1205037029
(Offered at ASC, ELC, JFC, MYC, SMC, WKC)

General Education
Quantitative Reasoning ................................................................. 3
Natural Sciences ............................................................................. 3
Social/Behavioral Sciences ............................................................. 3
Heritage/Humanities ...................................................................... 3
Written Communication .................................................................. 3
Oral Communications ...................................................................... 3
Required General Education Hours ................................................. 18
Culinary Arts Technical Core

CUL 100 Introduction to Culinary Arts OR ................................................. 2
CUL 105 Applied Introduction to Culinary Arts .................................... (2)
CUL 111 Garde Manger ............................................................................. 4
CUL 200 Sanitation and Safety ................................................................. 2
CUL 211 Basic Food Production .............................................................. 4
CUL 215 Basic Baking ................................................................................. 4
CUL 230 Basic Nutrition OR ................................................................. (3)
NFS 101 Human Nutrition and Wellness .............................................. (3)
CUL 240 Meats, Seafood, and Poultry .................................................. 4
CUL 270 Human Relations Management ................................................ 3
CUL 280 Cost and Control ......................................................................... 3
CUL 285 Front of the House OR ............................................................ (4)
CUL 290 Front of the House/Catering ..................................................... (4)
CUL 298 Culinary Arts Practicum Experience OR ............................... 2-3
CUL 299 Culinary Arts Cooperative Education Experience ............... (2-3)

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

Culinary Arts Degree Track - 120503702

(Offered at ASC, ELC, JFC, MYC, SKY, SMC, WKC)

General Education .............................................................. 18
Technical Core ................................................................................. 32-36
CUL 220 Advanced Baking and Pastry Arts ....................................... 4
CUL 260 International Cuisine .......................................................... 4
CUL 298 Culinary Arts Practicum Experience OR ............................... 2-3
CUL 299 Culinary Arts Cooperative Education Experience ............... (2-3)

Total Hours .......................... 60-65

Food and Beverage Management Degree Track - 120503703

(Offered at ASC, ELC, JFC, MYC, SKY, SMC, WKC)

General Education .............................................................. 18
Technical Core ................................................................................. 32-36
BAS 160 Introduction to Business ....................................................... 3
BAS 170 Entrepreneurship OR .............................................................. 3
BAS 283 Principles of Management ..................................................... (3)
BAS 282 Principles of Marketing ......................................................... 3
CUL 298 Culinary Arts Practicum Experience OR ............................... 2-3
CUL 299 Culinary Arts Cooperative Education Experience ............... (2-3)

Total Hours ................................ 61-66

Catering and Personal Chef Degree Track - 120503701

(Offered at ASC, ELC, JFC, MYC, SKY, SMC, WKC)

General Education .............................................................. 18
Technical Core ................................................................................. 32-36
BAS 160 Introduction to Business ....................................................... 3
BAS 170 Entrepreneurship OR .............................................................. 3
BAS 283 Principles of Management ..................................................... (3)
BAS 282 Principles of Marketing ......................................................... 3
CUL 298 Culinary Arts Practicum Experience OR ............................... 2-3
CUL 299 Culinary Arts Cooperative Education Experience ............... (2-3)

Total Hours ................................ 62-67

Diplomas

Culinary Arts - 1205034029

(Offered at ASC, BSC, ELC, MYC, SKY, SMC, WKC)

General Education*

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

Subtotal ........................................ 6

* If a diploma is sought, two of the three following courses may be used for the six (6) hours general education. These courses will not count toward the AAS degree:

WPP 200 Workplace Principles (Area 2) OR ........................................ 3
EFM 100 Personal Financial Management (Area 2) ............................... (3)
TEC 200 Technical Communications (Area 1) ....................................... 3

Technical or Support Courses

Technical Core ................................................................................. 32-36
CUL 220 Advanced Baking and Pastry Arts ....................................... 4
BAS 160 Introduction to Business ....................................................... 3
BAS 170 Entrepreneurship OR .............................................................. 3
CUL 298 Culinary Arts Practicum Experience OR ............................... 2-3
CUL 299 Culinary Arts Cooperative Education Experience ............... (2-3)

Technical/Support Total .......................................................... 42-47

Total Hours for Culinary Arts Diploma ........................................ 48-53

Food and Beverage Management - 1205034039

(Offered at ASC, BSC, ELC, MYC, SKY, SMC, WKC)

General Education*

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

Subtotal ........................................ 6

* If a diploma is sought, two of the three following courses may be used for the six (6) hours general education. These courses will not count toward the AAS degree:

WPP 200 Workplace Principles (Area 2) OR ........................................ 3
EFM 100 Personal Financial Management (Area 2) ............................... (3)
TEC 200 Technical Communications (Area 1) ....................................... 3

Technical or Support Courses

Technical Core ................................................................................. 32-36
BAS 160 Introduction to Business ....................................................... 3
BAS 170 Entrepreneurship OR .............................................................. 3
BAS 283 Principles of Management ..................................................... (3)
BAS 282 Principles of Marketing ......................................................... 3
CUL 298 Culinary Arts Practicum Experience OR ............................... 2-3
CUL 299 Culinary Arts Cooperative Education Experience ............... (2-3)

Technical/Support Total .......................................................... 43-48

Total Hours ............................................................................. 49-54

Catering and Personal Chef - 1205034019

(Offered at ASC, BSC, ELC, MYC, SKY, SMC, WKC)

General Education*

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

Subtotal ........................................ 6

* If a diploma is sought, two of the three following courses may be used for the six (6) hours general education. These courses will not count toward the AAS degree:

WPP 200 Workplace Principles (Area 2) OR ........................................ 3
EFM 100 Personal Financial Management (Area 2) ............................... (3)
TEC 200 Technical Communications (Area 1) ....................................... 3

Technical or Support Courses

Technical Core ................................................................................. 32-36
BAS 160 Introduction to Business ....................................................... 3
BAS 170 Entrepreneurship OR .............................................................. 3
BAS 283 Principles of Management ..................................................... (3)
BAS 282 Principles of Marketing ......................................................... 3
CUL 298 Culinary Arts Practicum Experience OR ............................... 2-3
CUL 299 Culinary Arts Cooperative Education Experience ............... (2-3)

Technical Support Total .......................................................... 44-49

Total Hours ............................................................................. 50-55
### Certificates

**Fundamentals of Culinary Arts - 1205033029**

*(Offered at ASC, BSC, ELC, JFC, MYC, SKY, SMC, WKC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUL 100</td>
<td>2</td>
</tr>
<tr>
<td>CUL 105</td>
<td>2</td>
</tr>
<tr>
<td>CUL 111</td>
<td>4</td>
</tr>
<tr>
<td>CUL 200</td>
<td>2</td>
</tr>
<tr>
<td>CUL 211</td>
<td>4</td>
</tr>
<tr>
<td>CUL 215</td>
<td>4</td>
</tr>
<tr>
<td>Total Hours</td>
<td>16</td>
</tr>
</tbody>
</table>

**Catering - 1205033059**

*(Offered at ASC, BSC, ELC, JFC, MYC, SKY, SMC, WKC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUL 100</td>
<td>2</td>
</tr>
<tr>
<td>CUL 105</td>
<td>2</td>
</tr>
<tr>
<td>CUL 111</td>
<td>4</td>
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<tr>
<td>CUL 200</td>
<td>2</td>
</tr>
<tr>
<td>CUL 215</td>
<td>4</td>
</tr>
<tr>
<td>CUL 290</td>
<td>4</td>
</tr>
<tr>
<td>Total Hours</td>
<td>16</td>
</tr>
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</table>

**Advanced Catering - 1205033079**

*(Offered at ASC, BSC, ELC, JFC, MYC, SKY, SMC, WKC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CUL 211</td>
<td>4</td>
</tr>
<tr>
<td>CUL 220</td>
<td>4</td>
</tr>
<tr>
<td>CUL 240</td>
<td>4</td>
</tr>
<tr>
<td>CUL 260</td>
<td>4</td>
</tr>
<tr>
<td>CUL 270</td>
<td>3</td>
</tr>
<tr>
<td>CUL 280</td>
<td>3</td>
</tr>
<tr>
<td>BAS 170</td>
<td>3</td>
</tr>
<tr>
<td>BAS 160</td>
<td>3</td>
</tr>
<tr>
<td>BAS 283</td>
<td>3</td>
</tr>
<tr>
<td>Total Hours</td>
<td>41-44</td>
</tr>
</tbody>
</table>

**Culinary Arts - 1205033049**

*(Offered at ASC, ELC, JFC, MYC, SKY, SMC, WKC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culinary Arts Technical Core</td>
<td>32-36</td>
</tr>
<tr>
<td>Total Hours</td>
<td>32-36</td>
</tr>
</tbody>
</table>

**Advanced Culinary Arts - 1205033069**

*(Offered at ASC, BSC, ELC, JFC, MYC, SKY, SMC, WKC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culinary Arts Technical Core</td>
<td>32-36</td>
</tr>
<tr>
<td>Culinary Arts Degree Track</td>
<td>10-11</td>
</tr>
<tr>
<td>Total Hours</td>
<td>42-47</td>
</tr>
</tbody>
</table>

**Food and Beverage Management - 1205033039**

*(Offered at ASC, BSC, ELC, JFC, MYC, SKY, SMC, WKC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUL 100 Introduction to Culinary Arts OR</td>
<td>2</td>
</tr>
<tr>
<td>CUL 105 Applied Fundamentals of the Culinary Arts Profession</td>
<td>2</td>
</tr>
<tr>
<td>CUL 200 Sanitation and Safety</td>
<td>2</td>
</tr>
<tr>
<td>CUL 211 Basic Food Production</td>
<td>4</td>
</tr>
<tr>
<td>CUL 215 Basic Baking</td>
<td>4</td>
</tr>
<tr>
<td>CUL 240 Meats, Seafood, and Poultry</td>
<td>4</td>
</tr>
<tr>
<td>CUL 270 Human Relations Management OR</td>
<td>4</td>
</tr>
<tr>
<td>CUL 280 Sanitation and Safety</td>
<td>4</td>
</tr>
<tr>
<td>BAS 160 Principles of Management</td>
<td>4</td>
</tr>
<tr>
<td>Total Hours</td>
<td>31-34</td>
</tr>
</tbody>
</table>

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

**Advanced Food and Beverage Management - 1205033089**

*(Offered at ASC, BSC, ELC, JFC, MYC, SKY, SMC, WKC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUL 100 Introduction to Culinary Arts OR</td>
<td>2</td>
</tr>
<tr>
<td>CUL 105 Applied Fundamentals of the Culinary Arts Profession</td>
<td>2</td>
</tr>
<tr>
<td>CUL 111 Garde Manger</td>
<td>4</td>
</tr>
<tr>
<td>CUL 200 Sanitation and Safety</td>
<td>2</td>
</tr>
<tr>
<td>CUL 211 Basic Food Production</td>
<td>4</td>
</tr>
<tr>
<td>CUL 215 Basic Baking</td>
<td>4</td>
</tr>
<tr>
<td>CUL 230 Basic Nutrition OR</td>
<td>3</td>
</tr>
<tr>
<td>NFS 101 Human Nutrition and Wellness</td>
<td>3</td>
</tr>
<tr>
<td>CUL 240 Meats, Seafood, and Poultry</td>
<td>4</td>
</tr>
<tr>
<td>CUL 270 Human Relations Management</td>
<td>3</td>
</tr>
<tr>
<td>CUL 280 Cost and Control</td>
<td>3</td>
</tr>
<tr>
<td>CUL 285 Front of the House OR</td>
<td>3</td>
</tr>
<tr>
<td>CUL 290 Front of the House/Catering</td>
<td>4</td>
</tr>
<tr>
<td>BAS 160 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BAS 170 Entrepreneurship OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 283 Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 285 Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>CUL 298 Culinary Arts Practicum Experience OR</td>
<td>3</td>
</tr>
<tr>
<td>CUL 299 Culinary Arts Cooperative Education Experience</td>
<td>3</td>
</tr>
<tr>
<td>Total Hours</td>
<td>43-45</td>
</tr>
</tbody>
</table>

**Culinary Arts Professional Development - 1205033099**

*(Offered at SKY, SMC, WKC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUL</td>
<td>12</td>
</tr>
</tbody>
</table>

*Prerequisites apply

### Dental Hygiene

This program prepares students to function as dental hygienists on a dental team under the general supervision of a dentist. The curriculum includes courses in general education and in dental hygiene as required by the Commission on Dental Accreditation and Kentucky state dental practice act. The program provides comprehensive educational experiences through lectures, clinical and related study in order that students may apply scientific knowledge in the performance of dental hygiene procedures. Students enrolled in the Dental Hygiene program must achieve a minimum grade of “C” in each Dental Hygiene and approved science course. Documentation of computer literacy as defined by KCTCS and Cardiopulmonary resuscitation (CPR) are required prior to admission to DHP courses.

**Associate in Applied Science**

### Dental Hygiene - 5106027019

*(Offered at BLC)*

**General Education Core**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>BIO 137 Human Anatomy &amp; Physiology</td>
<td>4</td>
</tr>
<tr>
<td>BIO 139 Human Anatomy &amp; Physiology</td>
<td>4</td>
</tr>
<tr>
<td>BIO 226 Principles of Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 110 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 101 Introduction to Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>
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.

### Recommended Electives (Not Required)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DHP 229</td>
<td>Local Anesthesia (2)</td>
</tr>
<tr>
<td>DHP 299</td>
<td>Independent Study Dental Hygiene (1-4)</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II (3)</td>
</tr>
<tr>
<td>NFS 101</td>
<td>Human Nutrition and Wellness (3)</td>
</tr>
</tbody>
</table>

**The Dental Hygiene Program at BCTC requires that BIO 137 & BIO 139 or their equivalents be successfully completed with a grade of C or higher prior to beginning DHP 120.**

**Documentation of computer/digital literacy as defined by KCTCS is required prior to admission to DHP courses. CPR certification for the healthcare provider must be obtained prior to enrolling in DHP 120 and certification must be kept current throughout the Program.**

### Dental Assisting/Dental Hygiene Integrated Program

The Dental Assisting/Dental Hygiene Integrated Program prepares graduates to function as dental auxiliary.

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 (DAH) course, Dental Assisting/Hygiene (DAH) course, and approved science courses.

The Dental Hygiene Program prepares the student to function as a dental hygienist on a dental auxiliary team under the supervision of a dentist. The curriculum includes content areas in general studies, biomedical sciences, dental sciences, clinical sciences, radiography, periodontology, and dental hygiene clinical experience. The program provides comprehensive educational experiences through lectures, clinical, and related study in order that graduates may apply scientific knowledge in the performance of dental hygiene procedures. Students must achieve a minimum grade of “C” in each Dental Hygiene (DHG) course, Dental Assisting/Hygiene (DAH) course, and approved science courses. Upon completion, graduates are eligible to apply to take the Dental Hygiene National Board Examination. As the only licensed dental auxiliaries, dental hygienists may be employed in dental offices, clinics, dental schools, public health and government agencies.

The programs are accredited by the Commission on Dental Accreditation, a specialized accrediting body of the American Dental Association. The commission is nationally recognized by the U.S. Department of Education to accredit dental and dental related educational programs at the post-secondary level.

### Associate in Applied Science

#### Dental Hygiene - 5106027040

(Offered in West Consortium – Credential granted by Henderson CC but also taught at West KY CTC)

(Offered in East Consortium – Credential granted by Big Sandy CTC but also taught at Somerset CC)

#### General Education Classes:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I (3)</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II (3)</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I (4)</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II (4)</td>
</tr>
<tr>
<td>BIO 225</td>
<td>Medical Microbiology (4)</td>
</tr>
<tr>
<td>PSY 110</td>
<td>General Psychology (3)</td>
</tr>
<tr>
<td>SOC 101</td>
<td>Introductory Sociology (3)</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra and Functions (3)</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics OR (3)</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II (3)</td>
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#### Integrated Classes:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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<tbody>
<tr>
<td>DAH 101</td>
<td>Infection Control and Medical Emergencies (2)</td>
</tr>
<tr>
<td>DAH 121</td>
<td>Dental Sciences (3)</td>
</tr>
<tr>
<td>DAH 124</td>
<td>Materials in Dentistry (2)</td>
</tr>
<tr>
<td>DAH 131</td>
<td>Oral Pathology (3)</td>
</tr>
<tr>
<td>DAH 135</td>
<td>Oral Radiology (2)</td>
</tr>
<tr>
<td>DAH 235</td>
<td>Practice Management (1)</td>
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#### Dental Hygiene Only Classes:

<table>
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<tbody>
<tr>
<td>DHG 120</td>
<td>Pre-Clinical Dental Hygiene (3)</td>
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<tr>
<td>DHG 130</td>
<td>Clinical Dental Hygiene I (3)</td>
</tr>
<tr>
<td>DHG 132</td>
<td>Pharmacology (2)</td>
</tr>
<tr>
<td>DHG 134</td>
<td>Dental Nutrition (2)</td>
</tr>
<tr>
<td>DHG 136</td>
<td>Periodontology (1)</td>
</tr>
<tr>
<td>DHG 220</td>
<td>Clinical Dental Hygiene II (4)</td>
</tr>
<tr>
<td>DHG 226</td>
<td>Advanced Periodontology (2)</td>
</tr>
<tr>
<td>DHG 230</td>
<td>Clinical Dental Hygiene III (3)</td>
</tr>
<tr>
<td>DHG 238</td>
<td>Community Dental Health Issues (2)</td>
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#### Elective

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<tr>
<td>DHG 221</td>
<td>Local Anesthesia and Nitrous Oxide Sedation (2)</td>
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</table>
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.
A total of 17 credit hours must be completed from the following clinical courses:

<table>
<thead>
<tr>
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<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>DMS 126</td>
<td>Clinical Education I</td>
<td>(3-4)</td>
</tr>
<tr>
<td>DMS 230</td>
<td>Clinical Education II</td>
<td>(5-8)</td>
</tr>
<tr>
<td>DMS 240</td>
<td>Clinical Education III</td>
<td>(5-8)</td>
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<td><strong>43</strong></td>
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<td><strong>Total</strong></td>
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<td><strong>62-67</strong></td>
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**Vascular Sonography Track – 510910707**

(Offered at JFC)

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<tr>
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<th>Course Name</th>
<th>Credits</th>
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<tr>
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<td>Medical Terminology</td>
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<tr>
<td>DMS 117</td>
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<td>7</td>
</tr>
<tr>
<td>DMS 118</td>
<td>Vascular Sonography II</td>
<td>6</td>
</tr>
<tr>
<td>DMS 121</td>
<td>Sonography Physics and Instrumentation</td>
<td>6</td>
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<tr>
<td>DMS 136</td>
<td>Vascular Clinical Education I</td>
<td>4</td>
</tr>
<tr>
<td>DMS 199</td>
<td>Online Physics Review</td>
<td>1</td>
</tr>
<tr>
<td>DMS 204</td>
<td>Online Vascular Review</td>
<td>2</td>
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<tr>
<td>DMS 206</td>
<td>Online Vascular Sonography III</td>
<td>3</td>
</tr>
<tr>
<td>DMS 236</td>
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<td>8</td>
</tr>
<tr>
<td>DMS 237</td>
<td>Vascular Clinical Education III</td>
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<td><strong>Subtotal</strong></td>
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<td><strong>43</strong></td>
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<td><strong>Total</strong></td>
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**Cardiac Sonography Track – 510910708**

(Offered at ASC, JFC)

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<tr>
<td>AHS 120</td>
<td>Medical Terminology</td>
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<td>DMS 105</td>
<td>Introduction to Cardiology</td>
<td>13</td>
</tr>
<tr>
<td>DMS 145</td>
<td>Cardiac Sonography I</td>
<td>12</td>
</tr>
<tr>
<td>DMS 205</td>
<td>Cardiac Sonography II</td>
<td>6</td>
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<tr>
<td>DMS 215</td>
<td>Cardiac Sonography III</td>
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<tr>
<td>DMS 245</td>
<td>Cardiac Sonography IV</td>
<td>6</td>
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<td><strong>Subtotal</strong></td>
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**Certificates**

**Basic Vascular Sonography Technology – 5109103069**

(Offered at SKY, WKC)

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<tr>
<td>DMS 280</td>
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**Cardiac Sonography – 5109103079**

(Offered at JFC)

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<tr>
<td>DMS 105</td>
<td>Introduction to Cardiology</td>
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<tr>
<td>DMS 145</td>
<td>Cardiac Sonography I</td>
<td>12</td>
</tr>
<tr>
<td>DMS 205</td>
<td>Cardiac Sonography II</td>
<td>6</td>
</tr>
<tr>
<td>DMS 215</td>
<td>Cardiac Sonography III</td>
<td>6</td>
</tr>
<tr>
<td>DMS 245</td>
<td>Cardiac Sonography IV</td>
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<td><strong>Total</strong></td>
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**General Sonography -5109103089**

(Offered at JFC)

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<tr>
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<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>DMS 111</td>
<td>Abdominal Sonography</td>
<td>7</td>
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<tr>
<td>DMS 116</td>
<td>OB/GYN Sonography</td>
<td>6</td>
</tr>
<tr>
<td>DMS 121</td>
<td>Sonography Physics and Instrumentation</td>
<td>6</td>
</tr>
<tr>
<td>DMS 199</td>
<td>Online Physics Review</td>
<td>1</td>
</tr>
<tr>
<td>DMS 201</td>
<td>Online Abdomen Review</td>
<td>1</td>
</tr>
<tr>
<td>DMS 202</td>
<td>Online OB/GYN Review</td>
<td>1</td>
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<td><strong>Total</strong></td>
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A total of 17 credit hours must be completed from the following clinical courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMS 117</td>
<td>Vascular Sonography I</td>
<td>7</td>
</tr>
<tr>
<td>DMS 118</td>
<td>Vascular Sonography II</td>
<td>6</td>
</tr>
<tr>
<td>DMS 121</td>
<td>Sonography Physics and Instrumentation</td>
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<tr>
<td>DMS 136</td>
<td>Vascular Clinical Education I</td>
<td>4</td>
</tr>
<tr>
<td>DMS 199</td>
<td>Online Physics Review AND</td>
<td>1</td>
</tr>
<tr>
<td>DMS 204</td>
<td>Online Vascular Review</td>
<td>2</td>
</tr>
<tr>
<td>DMS 206</td>
<td>Online Vascular Sonography III</td>
<td>3</td>
</tr>
<tr>
<td>DMS 236</td>
<td>Vascular Clinical Education II</td>
<td>8</td>
</tr>
<tr>
<td>DMS 237</td>
<td>Vascular Clinical Education III</td>
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**Basic Cardiac Ultrasound Technology - 5109103059**

(Offered at SKY)

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<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>DMS 217</td>
<td>Basic Cardiac Ultrasound Technology</td>
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<tr>
<td><strong>Total</strong></td>
<td></td>
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**Diesel Technology**

Emphasizes the skills needed to analyze malfunctions and repair, rebuild and maintain construction equipment, agriculture equipment, or medium and heavy trucks in this program of study. Provides instruction and experience in systems such as diesel engines, fuel injection, onboard computers, transmissions, steering and suspension, and brakes.

A student must receive a grade of “C” or better to receive credit for successful completion of courses in the diesel technology curriculum.

**Associate in Applied Science**

**Diesel Technology - 4706057039**

(Offered at ELC, HPC, OWI, SEC)

**General Education:**

<table>
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<th>Category</th>
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<td>Quantitative Reasoning</td>
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<td>Natural Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Heritage/Humanities</td>
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**Technical Core:**

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<tr>
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<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BEX 100</td>
<td>Basic Electricity for Non-Majors AND</td>
<td>3</td>
</tr>
<tr>
<td>BEX 101</td>
<td>Basic Electricity Lab for Non-Majors OR</td>
<td>2</td>
</tr>
<tr>
<td>ADX 120</td>
<td>Basic Automotive Electricity AND</td>
<td></td>
</tr>
<tr>
<td>ADX 121</td>
<td>Basic Automotive Electricity Lab OR</td>
<td></td>
</tr>
<tr>
<td>ELT 100</td>
<td>Circuits I</td>
<td></td>
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<tr>
<td>ADX 170</td>
<td>Climate Control</td>
<td>3</td>
</tr>
<tr>
<td>ADX 171</td>
<td>Climate Control Lab</td>
<td>1</td>
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<tr>
<td>DIT 103</td>
<td>Preventive Maintenance Lab</td>
<td>2</td>
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<tr>
<td>DIT 110</td>
<td>Introduction to Diesel Engines</td>
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<tr>
<td>DIT 111</td>
<td>Introduction to Diesel Engines Lab OR</td>
<td></td>
</tr>
<tr>
<td>ADX 150</td>
<td>Engine Repair AND</td>
<td></td>
</tr>
<tr>
<td>ADX 151</td>
<td>Engine Repair Lab</td>
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<tr>
<td>DIT 112</td>
<td>Diesel Engine Repair</td>
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<tr>
<td>DIT 113</td>
<td>Diesel Engine Repair Lab</td>
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<tr>
<td>DIT 140</td>
<td>Hydraulics AND</td>
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</tr>
<tr>
<td>DIT 141</td>
<td>Hydraulics Lab OR</td>
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A student must receive a grade of “C” or better to receive credit for successful completion of courses in the diesel technology curriculum.
NOTE: Computer/Digital Literacy must be demonstrated either by competency exam or by completing a computer/digital literacy course. If demonstrated by a competency exam, an additional three credit hour class must be taken.

**Agriculture Diesel Technician Track - 470605701**  
*(Offered at HPC, OWC, SEC)*

<table>
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<tr>
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<th>Course Title</th>
<th>Credits</th>
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<td>Powertrain for Construction Equipment</td>
<td>3</td>
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<td>DIT 153</td>
<td>Powertrain for Construction Equipment Lab</td>
<td>2</td>
</tr>
<tr>
<td>DIT 121</td>
<td>Introduction to Maintenance Welding Lab OR</td>
<td>3</td>
</tr>
<tr>
<td>IMT 100</td>
<td>Welding for Maintenance AND</td>
<td>(3)</td>
</tr>
<tr>
<td>IMT 101</td>
<td>Welding for Maintenance Lab OR</td>
<td>(2)</td>
</tr>
<tr>
<td>WLD 120</td>
<td>Shielded Metal Arc-Welding (SMAW) AND</td>
<td>(3)</td>
</tr>
<tr>
<td>WLD 121</td>
<td>Shielded Metal Arc-Welding (SMAW) Lab</td>
<td>(2)</td>
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**Construction Equipment Technician Track - 470605702**  
*(Offered at OWC, SEC)*

<table>
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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>DIT 121</td>
<td>Introduction to Maintenance Welding Lab OR</td>
<td>3</td>
</tr>
<tr>
<td>IMT 100</td>
<td>Welding for Maintenance AND</td>
<td>(3)</td>
</tr>
<tr>
<td>IMT 101</td>
<td>Welding for Maintenance Lab OR</td>
<td>(2)</td>
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<tr>
<td>WLD 120</td>
<td>Shielded Metal Arc-Welding (SMAW) AND</td>
<td>(3)</td>
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<tr>
<td>WLD 121</td>
<td>Shielded Metal Arc-Welding (SMAW) Lab</td>
<td>(2)</td>
</tr>
<tr>
<td>DIT 123</td>
<td>Undercarriage Lab</td>
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</tr>
<tr>
<td>DIT 152</td>
<td>Powertrain for Construction Equipment</td>
<td>3</td>
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<tr>
<td>DIT 153</td>
<td>Powertrain for Construction Equipment Lab</td>
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**Medium and Heavy Truck Technician Track - 470605703**  
*(Offered at ELI, OWC, SEC)*

<table>
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<tbody>
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<td>Brakes</td>
<td>3</td>
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<tr>
<td>DIT 181</td>
<td>Brakes Lab</td>
<td>2</td>
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<tr>
<td>DIT 160</td>
<td>Steering and Suspension</td>
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<td>DIT 161</td>
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**Recommended Technical Electives (Program Coordinator Approval required)**

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<td>Brakes</td>
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<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>
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<tr>
<td>DIT 121</td>
<td>Introduction to Maintenance Welding Lab OR</td>
<td>3</td>
</tr>
<tr>
<td>IMT 100</td>
<td>Welding for Maintenance AND</td>
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<tr>
<td>IMT 101</td>
<td>Welding for Maintenance Lab OR</td>
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</tr>
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<td>WLD 120</td>
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<td>(3)</td>
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<td>WLD 121</td>
<td>Shielded Metal Arc-Welding (SMAW) Lab</td>
<td>(2)</td>
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<tr>
<td>DIT 123</td>
<td>Undercarriage Lab</td>
<td>1</td>
</tr>
<tr>
<td>DIT 152</td>
<td>Powertrain for Construction Equipment</td>
<td>3</td>
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<td>DIT 153</td>
<td>Powertrain for Construction Equipment Lab</td>
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<tr>
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<td>PMX 100</td>
<td>Precision Measurement</td>
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<td>DIT 193</td>
<td>Special Problems I</td>
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<td>Special Problems II</td>
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<td>Special Problems III</td>
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<tr>
<td>DIT 198</td>
<td>Practicum</td>
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<td>DIT 298</td>
<td>Practicum II</td>
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<td>DIT 299</td>
<td>Cooperative Education II</td>
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<td><em>(Or other courses as approved by the Program Coordinator that will prepare the student for entry into the workforce)</em></td>
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**Diplomas**

**Agriculture Equipment Technician - 4706054039**  
*(Offered at ASC, BSC, HPC, MYC, OWC, SEC, SMC, WKC)*

**General Education**

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<tr>
<th>Area</th>
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<th>Credits</th>
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<td>1</td>
<td>Written Communication, Oral Communications, or Humanities/Heritage</td>
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</tr>
<tr>
<td>2</td>
<td>Social /Behavioral Science, Natural Sciences or Quantitative Reasoning</td>
<td>3</td>
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**Technical Courses**

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<th>Course Title</th>
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</thead>
<tbody>
<tr>
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<td>Climate Control</td>
<td>3</td>
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<tr>
<td>ADX 171</td>
<td>Climate Control Lab</td>
<td>1</td>
</tr>
<tr>
<td>BEX 100</td>
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**Construction Equipment Technician - 4706054019**  
*(Offered at ASC, BSC, HZC, MYC, OWC, SEC)*

**General Education**

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**Recommended Technical Electives (Program Coordinator Approval required)**

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**Certificate**

**Agriculture Equipment Mechanic Helper - 4706053109**

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**Construction Equipment Mechanic Helper - 4706053019**

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

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### Diesel Mechanics Assistant - 4706053189
(Offered at BSC, ELC, HZC, MYC, OWC, SEC, SMC, WKC)

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### Diesel Steering & Suspension Mechanic - 4706053179
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### Electrical/Electronics Systems Mechanic - 4706053059
(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC, WKC)

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### Fluid Power Mechanic - 4706053119
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### Heavy Duty Brake Mechanic - 4706053039
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### Heavy Duty Drive Train Mechanic - 4706053089
(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC, WKC)

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### Medium and Heavy Truck Mechanic Helper - 4706053149
(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC, WKC)

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### Mobile Air Conditioning Mechanic - 4706053169
(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC, WKC)

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<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ADX 170</td>
<td>3</td>
</tr>
<tr>
<td>ADX 171</td>
<td>1</td>
</tr>
<tr>
<td>Electives (Diesel Courses/Industrial Education Core)</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

### Preventive Maintenance Mechanic - 4706053199
(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
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<td>DIT 103</td>
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<tr>
<td>Electives (Diesel Courses/Industrial Education Core)</td>
<td>11</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>13</strong></td>
</tr>
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</table>

### Undercarriage Mechanic - 4706053099
(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIT 123</td>
<td>3</td>
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<tr>
<td>Electives (Diesel Courses/Industrial Education Core)</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>
Digital Game and Simulation Design

Provides students with a thorough understanding of techniques for designing advanced 3D games and simulations. Courses will cover 2D and 3D graphics, animation, character development, texturing, rigging, scripting and game setup using state-of-the-art software development tools.

Completing students will have developed the skills necessary to create sophisticated 3D graphics and a simple application that can be used for games and simulations.

Certificate

Digital Game and Simulation Design - 1108033029
(Offered at JFC, MYC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DGD 131</td>
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<tr>
<td>DGD 132</td>
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<td>DGD 231</td>
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<td>DGD 237</td>
<td>3</td>
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<tr>
<td>Total</td>
<td>27-30</td>
</tr>
</tbody>
</table>

Education

The Associate in Applied Science Degree (AAS) – Education: Educator Preparation is a pathway designed for students who wish to begin coursework at a community and technical college and then apply for transfer to a four-year college or university.

Associate in Applied Science

Education - 1315017019
Educator Preparation Track - 131501703
(Offered at BLC, EL, GTW, JFC, SEC, SMC)

General Education

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENG 101</td>
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</tr>
<tr>
<td>ENG 102</td>
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</tr>
<tr>
<td>COM 181</td>
<td>3</td>
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<tr>
<td>COM 252</td>
<td>3</td>
</tr>
<tr>
<td>HIS 108</td>
<td>3</td>
</tr>
<tr>
<td>HIS 109</td>
<td>3</td>
</tr>
<tr>
<td>MAT 146</td>
<td>3</td>
</tr>
<tr>
<td>MAT 150</td>
<td>3</td>
</tr>
<tr>
<td>MA 109</td>
<td>3</td>
</tr>
<tr>
<td>MA 111</td>
<td>3</td>
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<tr>
<td>PSY 110</td>
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<tr>
<td>Subtotal</td>
<td>34-35</td>
</tr>
</tbody>
</table>

Technical Core or Support Core (Common)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital Literacy</td>
<td>3</td>
</tr>
<tr>
<td>EDU 201 An Introduction to American Education</td>
<td>3</td>
</tr>
<tr>
<td>EDP 202 Human Development and Learning</td>
<td>3</td>
</tr>
<tr>
<td>EDP 203 Teaching Exceptional Learners in Regular Classrooms</td>
<td>3</td>
</tr>
<tr>
<td>Total Common</td>
<td>12</td>
</tr>
</tbody>
</table>

Technical or Support Courses

Technical or Support Electives | 15

Total Credit Hours | 61-62

1At least one course must be selected from the identified Cultural Studies course list.
2Must include at least one Natural Science course with a laboratory experience.
3Students must fulfill the Digital Literacy requirement by means specified in the KCTCS Catalog. A student who fulfills the Digital Literacy requirement by a means other than earning credit for an approved KCTCS digital literacy course must take three (3) credit hours of coursework approved by the program coordinator.

Emergency Medical Services - Paramedic

Provides a comprehensive course of study that prepares the graduate for licensure as a Paramedic (EMTP). The curriculum is structured based on the National EMS Education Standards and regulations set forth by the Kentucky Board of Emergency Medical Services (KBEMS). The three-phase curriculum is designed to provide the student with the cognitive knowledge, psychomotor skills, and affective behaviors necessary to competently perform as a Paramedic. The EMS program prepares students to function in the emergency medical profession as a Paramedic in a variety of environments. Graduates primarily provide pre-hospital emergency care to acutely ill and/or injured individuals while working on an ambulance, mobile advanced life support unit, industrial on-site unit, fire department, emergency department, and other agencies.

Graduates are eligible to apply to take the National Registry Paramedic Exam. Students may earn either a Certificate or Associate in Applied Science Degree at the Paramedic level. Credit may be awarded to currently practicing paramedics towards the Associate in Applied Science Degree. Enrollment in this program is limited; therefore, a selective admissions process is followed. Students are required to hold current unrestricted certification as an EMT in Kentucky or hold current unrestricted registration with the National Registry EMT as an EMT to be eligible for paramedic program admission.

Acceptance into the EMS-Paramedic Program is based upon a selective admissions process. In order to be considered for admission, applicants must comply with college and program admission requirements. Applicants must present current, unrestricted state certification or proof of National Registry of EMT eligibility to become state certified. Licensed paramedics may receive credit towards the Associate of Applied Science in Emergency Medical Services – Paramedic. When eligible, the licensed paramedic will be awarded thirty-eight (38) semester credit hours upon the completion of: a) applying to the college of choice; b) submitting a letter of intent and a copy of the required licensure/certification document to the program coordinator with subsequent validation by the Registrar; and c) completing at least nine (9) credit hours from the degree-granting institution. Credit will be awarded as follows: 4 credit hours/EMS 200 Introduction to Paramedicine; 3 credit hours/EMS 210 Emergency Pharmacology; 3 credit hours/EMS 220 Cardiovascular Emergencies; 4 credit hours/EMS 230 Traumatic Emergencies; 3 credit hours/EMS 240 Medical Emergencies I; 3 credit hours/EMS 250 Medical Emergencies II; 3 credit hours/EMS 260 Special Populations; 1 credit hour/EMS 270 EMS Operations; 1 credit hour/EMS 275 Seminar in ALS; 5 credit hours/EMS 285 Field Internship & Summation; 2 credit hours/EMS 211 Fundamentals Lab; 1 credit hour/EMS 221 Cardiac & Trauma Lab; 1 credit hour/EMS 231 Medical Lab; 1 credit hour/EMS 215 Clinical Experience I; 1 credit hour/EMS 223 Clinical Experience
II; 2 credit hours/EMS 235 Clinical Experience III. Students must meet the twenty-five percent (25%) residency requirements of the degree-granting institution.

Students select their career option preference, certificate or degree, either during advising or upon admission to the program, but may choose to change their career path while in the program without reapplying for admission to the college.

Student can receive a certificate as an Electrocardiogram Technician by completing EMS 150. EMS 150 will prepare students to perform and interpret electrocardiograms in a hospital or clinical setting.

**Associate in Applied Science**
Emergency Medical Services - Paramedic - 5109040029
(Offered at ASC, GTW, JFC, MDC, OWC, SMC, WKC)

**General Education:**
ENG 101 Writing I ........................................... 3
PSY 110 General Psychology ................................ 3
BIO 135 Basic Anatomy and Physiology with Laboratory* .......................... 4
PSY 110 Quantitative Reasoning .................................. 3
CL 134 Oral Communications ................................... 3
EMS 200 HERITAGE or Humanities .......................... 3
EMS 231 Medical Terminology OR* .......................... 3
EMS 235 Digital Literacy ........................................ 3
EMS 240 Introduction to Paramedicine ..................... 4
EMS 250 Emergency Pharmacology .......................... 3
EMS 251 Fundamentals Lab ..................................... 2
EMS 252 Clinical Experience I ................................ 1
EMS 253 Cardiovascular Emergencies ........................ 3
EMS 254 Cardiac and Trauma Lab ............................... 1
EMS 255 Clinical Experience II ................................ 1
EMS 256 Traumatic Emergencies ............................... 4
EMS 257 Medical Lab ............................................. 1
EMS 258 Clinical Experience III ............................... 2
EMS 259 Medical Emergencies I ............................... 3
EMS 260 Medical Emergencies II ............................... 3
EMS 261 Special Populations ..................................... 3
EMS 262 EMS Operations ........................................ 0-3
EMS 275 Seminar in Advanced Life Support (ALS) ........ 1
EMS 275 Field Internship & Summation ..................... 5-6
EMS 285 Management Principles for Allied Health Providers .......................... 3

**Total Credits** 63-67

*BIO 137 & BIO 139 may be substituted for BIO 135

**Certificate**
Emergency Medical Services - Paramedic - 5109040040
(Offered at ASC, BLC, HZC, GTW, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

BIO 135 Basic Anatomy and Physiology with Laboratory* .................................. 4
AHS 115 Medical Terminology OR* .................................. 3
CL 134 Medical Terminology from Greek and Latin (3) ................................ 3
FHM 100 Digital Literacy ............................................. 3
MAT 110 Applied Mathematics ..................................... 3
EMS 200 Introduction to Paramedicine .......................... 4
EMS 210 Emergency Pharmacology ................................ 3
EMS 211 Fundamentals Lab ......................................... 2
EMS 215 Clinical Experience I ...................................... 1
EMS 220 Cardiovascular Emergencies ............................ 3
EMS 221 Cardiac and Trauma Lab ................................ 1
EMS 225 Clinical Experience II ..................................... 1
EMS 230 Traumatic Emergencies .................................. 4
EMS 231 Medical Lab ................................................ 1
EMS 235 Clinical Experience III ................................... 2
EMS 240 Medical Emergencies I .................................... 3
EMS 250 Medical Emergencies II ................................... 3
EMS 260 Special Populations ......................................... 3
EMS 270 EMS Operations ............................................. 1
EMS 275 Seminar in Advanced Life Support (ALS) ........ 1
EMS 275 Field Internship & Summation ..................... 5-6
EMS 285 Management Principles for Allied Health Providers .......................... 3

**Total Credits** 47-49

*BIO 137 & BIO 139 may be substituted for BIO 135

**Energy Management**

The Energy Management (EM) degree is designed to give students the skills and national certifications required to receive employment in the rapidly growing field of energy management and positions in the energy industry. The embedded certificates include: the Center for Energy Workforce Development (CEWD) Energy Industry Fundamental Certificate, the Building Performance Institute’s Building Specialist certificate, and the Energy Management program’s Design’s Green Associate certification, and the Environmental Protection Agency’s Article 608 certification. The program is designed to meet the needs of non-traditional and working students by having courses absent of pre-requisites. The program has several embedded certificates that will give many exit points to employment. Graduates of the EM program will be qualified to recommend improvements to commercial and residential buildings by analyzing subsystems that contribute to higher energy usage.

Documentation of digital literacy as defined by KCTCS is required prior to enrolling in the first Energy Management course.

**Associate in Applied Science**
Energy Management - 1505037039
(Offered at MDC)

**General Education:**
Quantitative Reasoning ........................................ 3
Natural Science ...................................................... 3
Social/Behavioral Science ........................................ 3
Heritage/Humanities ................................................ 3
Written Communication .......................................... 3

**Subtotal** 15

**Technical Core**
ENM 101 Energy Industry Fundamentals ................................. 9
ENM 111 Sustainability Management OR ............................. 3
ENM 121 Solar Design and Applications ............................... 3
ENM 200 Commercial Energy Analysis .............................. 3
ENM 210 Smart Grid Applications ................................... 3
AIT 220 The Integrated Power Grid .................................. 3
ENM 230 Building Automation ....................................... 3
EGY 240 Energy Analysis and Efficiency ............................ 4
ENM 250 Regulatory and Environmental Issues .................. 3
ENM 260 Air Conditioning and Refrigeration Regulations ........ 3
BRX 120 Basic Blueprint Reading .................................... 3
BAS 160 Introduction to Business ..................................... 3
BAS 283 Principles of Management OR ............................ 3
BAS 284 Applied Management Skills ............................... (3)

**Subtotal** 46

**Total Credits** 61

Academic Curricula
## Diploma
### Energy Management - 1505034019
*(Offered at MDC)*

<table>
<thead>
<tr>
<th>General Education</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences</td>
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</tr>
<tr>
<td>Written/Oral Communications</td>
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<tr>
<td><strong>Subtotal</strong></td>
<td><strong>6</strong></td>
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</table>

<table>
<thead>
<tr>
<th>Technical Core</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENM 101 Energy Industry Fundamentals</td>
<td>9</td>
</tr>
<tr>
<td>ENM 111 Sustainability Management OR</td>
<td>3</td>
</tr>
<tr>
<td>One Study Abroad/Overseas Experience course (HRS 200,(3) IES 235 Or other Study Abroad course from a non-KCTCS accredited higher education institution approved by the Energy Management program coordinator).</td>
<td></td>
</tr>
<tr>
<td>ENM 121 Solar Design and Applications</td>
<td>3</td>
</tr>
<tr>
<td>ENM 200 Commercial Energy Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ENM 210 Smart Grid Applications</td>
<td>3</td>
</tr>
<tr>
<td>AIT 220 The Integrated Power Grid</td>
<td>3</td>
</tr>
<tr>
<td>ENM 230 Building Automation</td>
<td>3</td>
</tr>
<tr>
<td>EGY 240 Energy Analysis and Efficiency</td>
<td>4</td>
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<tr>
<td>ENM 250 Regulatory and Environmental Issues</td>
<td>3</td>
</tr>
<tr>
<td>ENM 260 Air Conditioning and Refrigeration Regulations</td>
<td>3</td>
</tr>
<tr>
<td>BRX 120 Basic Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>BAS 160 Introduction to Business</td>
<td>3</td>
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<tr>
<td>BAS 283 Principles of Management OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 284 Applied Management Skills</td>
<td>(3)</td>
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<tr>
<td><strong>Subtotal</strong></td>
<td><strong>46</strong></td>
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</table>

**Total Credits 52**

## Certificates
### Fundamentals of Energy Production – 1505033089
*(Offered at MDC)*

<table>
<thead>
<tr>
<th>General Education</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MAT 116 Technical Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101 Writing I</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>6</strong></td>
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</tbody>
</table>

### Commercial Energy Analysis – 1505033099
*(Offered at MDC)*

<table>
<thead>
<tr>
<th>General Education</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ESP 101 Introduction to Energy Systems</td>
<td>3</td>
</tr>
<tr>
<td>ESP 211 Power Plant Operations I</td>
<td>3</td>
</tr>
<tr>
<td>ISX 101 Introduction to Industrial Safety</td>
<td>3</td>
</tr>
<tr>
<td>ELT 102 Blueprint Reading</td>
<td>2</td>
</tr>
<tr>
<td>ESP 220 Power Plant Thermodynamics OR</td>
<td>3</td>
</tr>
<tr>
<td>ELT 208 Thermodynamic Applications</td>
<td>(3)</td>
</tr>
<tr>
<td>ENV 110 Introduction to Environmental Technology</td>
<td>4</td>
</tr>
<tr>
<td>ESP 110 Petroleum Based Fuels</td>
<td>3</td>
</tr>
<tr>
<td>ESP 280 Capstone in Energy Systems or</td>
<td>3</td>
</tr>
<tr>
<td>ISM 210 Fundamentals of Process Control</td>
<td>(3)</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>24-27</strong></td>
</tr>
</tbody>
</table>

### Sustainable Energy - 1505033109
*(Offered at MDC)*

<table>
<thead>
<tr>
<th>General Education</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COE** 199 Cooperative Education</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>21</strong></td>
</tr>
</tbody>
</table>

**Total Credits 63-66**

**COE** 199 requirement can be met by relevant work experience approved by the program coordinator.

## Energy Systems

The Energy Systems degree is designed to prepare its graduates for entry level positions across the entire range of energy technologies. The initial track will prepare students to work safely and effectively as operators in fossil-fueled electricity generating power plants. The curriculum will also provide a background in other types of energy production and distribution, including solar, wind, geothermal, and petroleum-based as well as emerging technologies such as ethanol, biodiesel, and clean coal technologies. Graduates will have an understanding of the financial, societal, and environmental impacts of the various energy production technologies, and will be able to operate and troubleshoot the machinery and systems used in energy production.

## Associate in Applied Science
### Energy Systems - 1505037019
*(Offered at MDC)*

<table>
<thead>
<tr>
<th>General Education</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MAT 116 Technical Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101 Writing I</td>
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</tr>
<tr>
<td>PHY 151 Introductory Physics I or higher</td>
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<tr>
<td><strong>Subtotal</strong></td>
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### Technical Core

<table>
<thead>
<tr>
<th>Technical Core</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESP 101 Introduction to Energy Systems</td>
<td>3</td>
</tr>
<tr>
<td>ESP 211 Power Plant Operations I</td>
<td>3</td>
</tr>
<tr>
<td>ESL 102 Blueprint Reading</td>
<td>2</td>
</tr>
<tr>
<td>ESP 220 Power Plant Thermodynamics OR</td>
<td>3</td>
</tr>
<tr>
<td>ESC 280 Thermodynamic Applications</td>
<td>(3)</td>
</tr>
<tr>
<td>ENV 110 Environmental Technology</td>
<td>4</td>
</tr>
<tr>
<td>ESP 110 Petroleum Based Fuels</td>
<td>3</td>
</tr>
<tr>
<td>ESP 280 Capstone in Energy Systems or</td>
<td>3</td>
</tr>
<tr>
<td>ISM 210 Fundamentals of Process Control</td>
<td>(3)</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>24-27</strong></td>
</tr>
</tbody>
</table>

**Total Credits 63-66**

**COE** 199 requirement can be met by relevant work experience approved by the program coordinator.

## Certificate
### Power Plant Operations - 1505033019
*(Offered at MDC)*

<table>
<thead>
<tr>
<th>General Education</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 116 Technical Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>PHY 151 Introductory Physics I or higher</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>6</strong></td>
</tr>
</tbody>
</table>

**Total Credits 63-66**
### Core
- **ELT 102** Blueprint Reading .................................................. 2
- **ESP 220** Power Plant Thermodynamics OR .......................... 3
- **ESP 208** Thermodynamic Applications .............................. (3)
- **ESP 211** Power Plant Operations I ...................................... 3
- **ESP 120** Power Plant Chemistry .......................................... 3
- **ISX 101** Introduction to Industrial Safety ............................ 3
- **ESP 212** Power Plant Operations II ..................................... 3
- **ESP 213** Power Plant Operations III ................................... 3
- **ESP 130** Electrical Concepts ............................................. 3
- **COE** 199 Cooperative Education ...................................... 3

**Subtotal** 26

**Total Credits** 32

**COE** 199 requirement can be met by relevant work experience approved by the program coordinator.

### Energy Technologies
Offers an option for students to build a career in the energy field. The degree incorporates multiple tracks for certificates associated with different energy careers, allowing students to match their strengths and interests with an appropriate plan of study. It is focused on preparing graduates to enter the workforce in positions such as an entry-level utility apprentice, line maintenance technician, transformer/relay technician, fiber optic technician, outside plant fiber optic technician, network communications technician, voice and data wiring technician, or renewable energy and energy efficiency specialist. The degree provides a broad foundation across many facets of utility and communications technologies, resulting in a multi-skilled technician valued by the workforce. Hands-on instruction is used to teach students aspects of smart grid technology, fiber optics installation, utility operation, line maintenance, underground operations, substation operations, transmission distribution, solar/photovoltaic systems installation, design and placement of wind energy systems, energy efficiency analysis, electrical energy efficiency control technologies, and job safety. The technical certificate tracks are complemented by an operations management certificate, which provides background knowledge of business operations.

### Associate in Applied Science

**Energy Technologies - 1505037029**
*(Offered at GTW)*

<table>
<thead>
<tr>
<th>General Education</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ENG 101</strong> Writing I .................................................. 3</td>
</tr>
<tr>
<td><strong>MAT 110</strong> Applied Mathematics OR ................................ 3</td>
</tr>
<tr>
<td><strong>PHY 171</strong> Applied Physics OR ........................................ 4</td>
</tr>
<tr>
<td><strong>Heritage / Humanities</strong> ........................................... 3</td>
</tr>
<tr>
<td><strong>Oral Communications</strong> ............................................ 3</td>
</tr>
<tr>
<td><strong>Social/Behavioral Sciences</strong> .................................... 3</td>
</tr>
</tbody>
</table>

**Subtotal** 18-19

<table>
<thead>
<tr>
<th>Technical Electives</th>
</tr>
</thead>
<tbody>
<tr>
<td>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</td>
</tr>
<tr>
<td><strong>COE 199</strong> Cooperative Education (up to 8 credit hours) .............. 16</td>
</tr>
<tr>
<td><strong>DFT 122</strong> Introduction to Computer Aided Drafting .................. 16</td>
</tr>
</tbody>
</table>

**Subtotal** 26

**Total Credits** 60-64

### Certificate

**Energy Efficiency Electrical Controls Technician – 1505033049**
*(Offered at GTW)*

| **EET 154** Electrical Construction I .................................. 2 |
| **EET 155** Electrical Construction I Lab ................................ 2 |
| **EET 250** National Electric Code ..................................... 4 |
| **EET 252** Electrical Construction II ................................... 2 |
| **EET 253** Electrical Construction II Lab ............................ 2 |
| **ELT 110** Circuits I ...................................................... 5 |
| **EGY 220** Energy Efficiency Electrical Controls ................... 4 |

**Total** 21

**Outside Plant Technician – 1505033039**
*(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 |
| **Computer/Digital Literacy** (NOTE: Computer/Digital literacy must be demonstrated either by competency exam or by successfully completing a computer/digital literacy course.) ........................................... 0-3 |

**Total** 16-19

**Energy Utility Technician – 1505033029**
*(Offered at GTW)*

| **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 |
| **Computer/Digital Literacy** (NOTE: Computer/Digital literacy must be demonstrated either by competency exam or by successfully completing a computer/digital literacy course.) ........................................... 0-3 |

**Total** 15-18

**Wind System Technologies – 1505033059**
*(Offered at BSC, BLC, GTW)*

| **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

**Solar/Photovoltaic Technologies – 1505033069**
*(Offered at BSC, BLC, GTW)*

| **EET 154** Electrical Construction I .................................. 2 |
| **EET 155** Electrical Construction I Lab ................................ 2 |
| **ELT 110** Circuits I ...................................................... 5 |
| **EGY 230** Solar / Photovoltaic Technologies ............................ 4 |

**Total** 13

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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

**CoE** 199 Cooperative Education (up to 8 credit hours) .............. 16

**Total Credits** 60-64
Energy Efficiency and Analysis – 1505033079
(Offered at BSC, BLC, GTW)

ACR 170 Heat Load / Duct Design 3
EGY 240 Energy Efficiency and Analysis 4
Computer/Digital Literacy (NOTE: Computer/Digital literacy must be demonstrated either by competency exam or by successfully completing a computer/digital literacy course.) 0-3
Total 7-10

Engineering and Electronics Technology

The Engineering and Electronics Technology program provides course work, competencies and experiences to prepare the students for success in the areas of Engineering technology, electronics, computer maintenance, mechanical, industrial, computer aided design, robotics and automation, communications, instrumentation, medical equipment, and telephony.

Progress in the Engineering and Electronics Technology program is contingent upon achievement of a grade of “C” or better in each technical course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Associate in Applied Science

Engineering and Electronics Technology - 1503997019
(Offered at BLC, ELC, HPC, JFC, MYC, OWC, SKY, SMC)

General Education
MAT 150 College Algebra OR 3
MAT 126 Technical Algebra and Trigonometry (3)
PHY 171 Applied Physics OR 4
Other Natural Sciences with Consent of Program Coordinator (3)
ENG 101 Writing I 3
Social/Behavioral Sciences 3
Oral Communications 3
Heritage/Humanities 3
Subtotal: 18-19

Core:
ELT 110 Circuits I 5
ELT 114 Circuits II 5
ELT 210 Devices I 4
ELT 120 Digital I 3
CAD 100 Introduction to Computer Aided Design OR 3
Equivalent Course with Consent of Program Coordinator (3-4)
Computer/Digital Literacy 3
Subtotal: 24-25

Electronics Track – 150399707
(Offered at BLC, ELC, HPC, JFC, MYC, OWC, SMC)

ELT 214 Devices II 4
ELT 220 Digital II 3
Technical Electives * 13
Subtotal: 20
Total 62-64

*Technical Electives: Any EET, ET, ELT, IMT, CIS, CIT, NIS, IT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Computer Maintenance Track – 150399703
(Offered at BLC, ELC, JFC, SMC)

ELT 234 Computer Hardware Maintenance OR 3
IT 105 Computer Maintenance Essentials OR 3
IT 105 Computer Maintenance Essentials (3)
ELT 232 Computer Software Maintenance OR 3
IT 205 Advanced Computer Maintenance OR 3
ELT 205 Advanced Computer Maintenance (3)
ELT 220 Digital II 3
NIS 160 Networking Core Technologies OR 3
IT 120 Cisco Internetworking I OR 4
CIT 160 Data Communications and Networking (4)
Technical Electives * 9
Subtotal: 21-22
Total 63-66

*Technical Electives: Any EET, ET, ELT, IMT, CIS, CIT, NIS, IT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Apprenticeship Track – 150399701
(Offered at JFC)

APS 201 Apprenticeship Studies 24
Total 66-68

*Technical Electives: Any EET, ET, ELT, IMT, CIS, CIT, NIS, IT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Mechanical Track – 150399706
(Offered at JFC, OWC)

ELT 122 Mechanical Power Transmission Systems AND 3
ELT 124 Mechanical Power Transmission Systems Lab OR 1
IMT 150 Maintaining Industrial Equipment I AND 3
IMT 151 Maintaining Industrial Equipment I Lab 2
ELT 265 Applied Fluid Power 3
BRX 120 Basic Blueprint Reading 3
CAD 200 Intermediate Computer Aided Drafting 4
Technical Electives * 8
Subtotal: 22-23
Total 64-67

*Technical Electives: Any EET, ET, ELT, IMT, CIS, CIT, NIS, IT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Industrial Track – 150399704
(Offered at BLC, HPC, JFC, MYC, OWC)

ELT 214 Devices II 4
ELT 220 Digital II 3
ELT 244 Electrical Machinery and Controls OR 4
EET 270 Electrical Motor Controls I AND 2
EET 271 Electrical Motor Controls I Lab 2
EET 250 Programmable Logic Controllers OR 4
EET 276 Programmable Logic Controllers AND 4
EET 277 Programmable Logic Controllers Lab (2)
Technical Electives * 9
Subtotal: 24
Total 66-68

*Technical Electives: Any EET, ET, ELT, IMT, CIS, CIT, NIS, IT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Computer Aided Design Track – 150399702
(Offered at HPC, JFC)

CAD 150 Programming in CAD OR 4
ELT 290 Selected Topics in Engineering Technology OR (3-4)
ADFT 130 Introduction to Architecture (3-4)
### General Education:

**Area 1:** Written Communication or Oral Communications ............ 3

**Area 2:**
- MAT 150 College Algebra OR ........................................... 3
- MAT 126 Technical Algebra and Trigonometry ...................... (3)

**Subtotal:** 6

**Core:**
- ELT 110 Circuits I ..................................................... 5
- ELT 114 Circuits II ...................................................... 5
- ELT 210 Digital I .......................................................... 4
- ELT 120 Digital II ......................................................... 3
- CAD 100 Introduction to Computer Aided Design OR ............ 3
- MAT 150 College Algebra OR ........................................... 3
- MAT 126 Technical Algebra and Trigonometry ...................... (3)

**Subtotal:** 20

**Total:** 52-54

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### Apprenticeship- 1503994059

(Offered at JFC)

**General Education:**
- Area 1: Written Communication or Oral Communications ............ 3

**Area 2:**
- MAT 150 College Algebra OR ........................................... 3
- MAT 126 Technical Algebra and Trigonometry ...................... (3)

**Subtotal:** 6

**Core:**
- ELT 214 Devices II ...................................................... 4
- ELT 220 Digital II .......................................................... 3
- Technical Electives ....................................................... 13

**Subtotal:** 20

**Total:** 52-54

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### Technical Electives:

- Any EET, ET, IMT, CIS, CIT, NIS, IT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

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### Diplomas

**Electronics – 1503994019**

(Offered at BLC, BSC, ELC, HPC, JFC, MDC, MYC, OWC, SEC, SMC)

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**Communications Track – 150399708**

(Offered at BLC, ELC)

- ELT 214 Devices II ...................................................... 4
- ELT 220 Digital II .......................................................... 3
- ELT 240 Communications Electronics ................................ 6

**Technical Electives * ................................................... 9

**Subtotal:** 22

**Total:** 64-66

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### Instrumentation Track – 150399709

(Offered at ELC)

- ELT 220 Digital II .......................................................... 3
- ISM 102 Fundamentals of Instrumentation .......................... 4
- ISM 210 Fundamentals of Process Control .......................... 4

**Technical Electives * ................................................... 7

**Subtotal:** 18

**Total:** 60-62

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### Medical Equipment and Instrumentation Track – 150399710

- ELT 214 Devices II ...................................................... 4
- BIO 135 Basic Anatomy and Physiology with Laboratory ....... 4
- BMT 200 Insight into Biomedical Equipment Technology ....... 2
- BMT 202 General Equipment Studies ................................ 3
- BMT 204 Electrical, Mechanical, and Optical Principles ....... 3
- BMT 205 Biomedical Equipment Practices I ....................... 1
- BMT 206 Specialized Biomedical Equipment ....................... 3
- BMT 207 Biomedical Equipment Practices II ...................... 1
- BMT 209 Clinical ........................................................... 2

**Subtotal:** 23

**Total:** 65-67

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*Technical Electives: Any EET, ET, IMT, CIS, CIT, NIS, IT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.*
Industrial Electronics – 1503994079  
(Offered at BLC, HPC, JFC, MYC, OWC, SEC)

General Education:
Area 1: Written Communication or Oral Communications .......... 3
AND
Area 2:
MAT 150 College Algebra OR ............................................. 3
MAT 126 Technical Algebra and Trigonometry ...................... (3)
Subtotal: 6

Core:
ELT 110 Circuits I ......................................................... 5
ELT 114 Circuits II .......................................................... 5
ELT 210 Devices I ............................................................ 4
ELT 120 Digital I ............................................................. 3
CAD 100 Introduction to Computer Aided Design OR .......... 3
Equivalent Course with Consent of Program Coordinator (3-4)
Computer/Digital Literacy ................................................. 3
ELT 289 Engineering and Electronics Technology Capstone Course..... 1
COED 198 Practicum OR ..................................................... 1-2
COE 199 Cooperative Education OR .................................... (1-2)
Equivalent Course with Consent of Program Coordinator (1-2)
Subtotal: 25-27

Subtotal: 6

Total: 55-57

*Technical Electives: Any EET, ET, IMT, CIS, CIT, NIS, IT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

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 ...................... (3)
Subtotal: 6

Core:
ELT 110 Circuits I ......................................................... 5
ELT 114 Circuits II .......................................................... 5
ELT 210 Devices I ............................................................ 4
ELT 120 Digital I ............................................................. 3
CAD 100 Introduction to Computer Aided Design OR .......... 3
Equivalent Course with Consent of Program Coordinator (3-4)
Computer/Digital Literacy ................................................. 3
ELT 289 Engineering and Electronics Technology Capstone Course..... 1
COED 198 Practicum OR ..................................................... 1-2
COE 199 Cooperative Education OR .................................... (1-2)
Equivalent Course with Consent of Program Coordinator (1-2)
Subtotal: 25-27

Total: 24

Subtotal: 6

Total: 55-57

*Technical Electives: Any EET, ET, IMT, CIS, CIT, NIS, IT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Communications – 1503994029  
(Offered at BLC, ELC, JFC, OWC, SEC, SMC)

General Education:
Area 1: Written Communication or Oral Communications .......... 3
AND
Area 2:
MAT 150 College Algebra OR ............................................. 3
MAT 126 Technical Algebra and Trigonometry ...................... (3)
Subtotal: 6

Core:
ELT 110 Circuits I ......................................................... 5
ELT 114 Circuits II .......................................................... 5
ELT 210 Devices I ............................................................ 4
ELT 120 Digital I ............................................................. 3
CAD 100 Introduction to Computer Aided Design OR .......... 3
Equivalent Course with Consent of Program Coordinator (3-4)
Computer/Digital Literacy ................................................. 3
ELT 289 Engineering and Electronics Technology Capstone Course..... 1
COED 198 Practicum OR ..................................................... 1-2
COE 199 Cooperative Education OR .................................... (1-2)
Equivalent Course with Consent of Program Coordinator (1-2)
Subtotal: 25-27

Subtotal: 6

Total: 55-57

*Technical Electives: Any EET, ET, IMT, CIS, CIT, NIS, IT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Computer Maintenance – 1503994049  
(Offered at BLC, ELC, JFC, OWC, SEC, SMC)

General Education:
Area 1: Written Communication or Oral Communications .......... 3
AND
Area 2:
MAT 150 College Algebra OR ............................................. 3
MAT 126 Technical Algebra and Trigonometry ...................... (3)
Subtotal: 6

Core:
ELT 110 Circuits I ......................................................... 5
ELT 114 Circuits II .......................................................... 5
ELT 210 Devices I ............................................................ 4
ELT 120 Digital I ............................................................. 3
CAD 100 Introduction to Computer Aided Design OR .......... 3
Equivalent Course with Consent of Program Coordinator (3-4)
Computer/Digital Literacy ................................................. 3
ELT 289 Engineering and Electronics Technology Capstone Course..... 1
COED 198 Practicum OR ..................................................... 1-2
COE 199 Cooperative Education OR .................................... (1-2)
Equivalent Course with Consent of Program Coordinator (1-2)
Subtotal: 25-27

Subtotal: 6

Total: 52-55

*Technical Electives: Any EET, ET, IMT, CIS, CIT, NIS, IT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.
Mechanical – 1503994069
(Offered at JFC, OWC)

General Education:
Area 1: Written Communication or Oral Communications ................. 3
AND
Area 2:
MAT 150 College Algebra OR ............................................. 3
MAT 126 Technical Algebra and Trigonometry ............................... (3)
Subtotal: 6

Core:
ELT 110 Circuits I .................................................................. 5
ELT 114 Circuits II ................................................................. 5
ELT 210 Devices I ................................................................. 4
ELT 120 Digital I ................................................................. 3
CAD 100 Introduction to Computer Aided Design OR .................. 3
Equivalent Course with Consent of Program Coordinator (3-4)
Computer/Digital Literacy ....................................................... 3
ELT 289 Engineering and Electronics Technology Capstone Course.. 1
COED 198 Practicum OR ....................................................... 1-2
COE 199 Cooperative Education OR ........................................... (1-2)
Equivalent Course with Consent of Program Coordinator (1-2)
Subtotal: 25-27

ELT 122 Mechanical Power Transmission Systems AND ............... 3
ELT 124 Mechanical Power Transmission Systems Lab OR .......... 1
IMT 150 Maintaining Industrial Equipment I AND ....................... (3)
IMT 151 Maintaining Industrial Equipment I Lab ......................... (2)
ELT 265 Applied Fluid Power ................................................. 3
BRX 120 Basic Blueprint Reading ............................................. 3
CAD 200 Intermediate Computer Aided Drafting ......................... 4
Technical Electives * ................................................................ 8
Subtotal: 22-23

Total 53-56

*Technical Electives: Any EET, ET, ELT, IMT, CIS, CIT, NIS, IT, ISM, CAD, ICT, MFG, or
any other course as approved by the program coordinator.

Robotics and Automation – 1503994039
(Offered at BLC, BSC, HPC, JFC, MYC, OWC, SKY)

General Education:
Area 1: Written Communication or Oral Communications ................. 3
AND
Area 2:
MAT 150 College Algebra OR ............................................. 3
MAT 126 Technical Algebra and Trigonometry ............................... (3)
Subtotal: 6

Core:
ELT 110 Circuits I .................................................................. 5
ELT 114 Circuits II ................................................................. 5
ELT 210 Devices I ................................................................. 4
ELT 120 Digital I ................................................................. 3
CAD 100 Introduction to Computer Aided Design OR .................. 3
Equivalent Course with Consent of Program Coordinator (3-4)
Computer/Digital Literacy ....................................................... 3
ELT 289 Engineering and Electronics Technology Capstone Course.. 1
COED 198 Practicum OR ....................................................... 1-2
COE 199 Cooperative Education OR ........................................... (1-2)
Equivalent Course with Consent of Program Coordinator (1-2)
Subtotal: 25-27

ELT 118 Manufacturing III; Computer Numerical Control OR .......... 3
CMM 132 CAD/CAM/CNC ..................................................... (3)
ELT 265 Applied Fluid Power ................................................. 3
ELT 260 Robotics and Industrial Automation ............................... 5
ELT 244 Electrical Machinery and Controls OR ......................... 4
EET 270 Electrical Motor Controls I AND ................................ (2)
EET 271 Electrical Motor Controls I Lab .................................... (2)
ELT 250 Programmable Logic Controllers OR ......................... 4
ELT 276 Programmable Logic Controllers AND ......................... (2)
ELT 277 Programmable Logic Controllers Lab ........................... (2)
Technical Electives * .................................................................... 5
Subtotal: 24

Total 55-57

*Technical Electives: Any EET, ET, ELT, IMT, CIS, CIT, NIS, IT, ISM, CAD, ICT, MFG, or
any other course as approved by the program coordinator.

Instrumentation – 1503994099
(Offered at ELC)

General Education:
Area 1: Written Communication or Oral Communications ................. 3
AND
Area 2:
MAT 150 College Algebra OR ............................................. 3
MAT 126 Technical Algebra and Trigonometry ............................... (3)
Subtotal: 6

Core:
ELT 110 Circuits I .................................................................. 5
ELT 114 Circuits II ................................................................. 5
ELT 210 Devices I ................................................................. 4
ELT 120 Digital I ................................................................. 3
CAD 100 Introduction to Computer Aided Design OR .................. 3
Equivalent Course with Consent of Program Coordinator (3-4)
Computer/Digital Literacy ....................................................... 3
ELT 289 Engineering and Electronics Technology Capstone Course.. 1
COED 198 Practicum OR ....................................................... 1-2
COE 199 Cooperative Education OR ........................................... (1-2)
Equivalent Course with Consent of Program Coordinator (1-2)
Subtotal: 25-27

ELT 220 Digital II .................................................................... 3
ISM 102 Fundamentals of Instrumentation ................................... 4
ISM 210 Fundamentals of Process Control ................................... 4
Technical Electives * .................................................................... 9
Subtotal: 20

Total 51-53

*Technical Electives: Any EET, ET, ELT, IMT, CIS, CIT, NIS, IT, ISM, CAD, ICT, MFG, or
any other course as approved by the program coordinator.

Digital Telephony - 1503994109

General Education:
Area 1: Written Communication or Oral Communications ................. 3
AND
Area 2:
MAT 150 College Algebra OR ............................................. 3
MAT 126 Technical Algebra and Trigonometry ............................... (3)
Subtotal: 6

Core:
ELT 110 Circuits I .................................................................. 5
ELT 114 Circuits II ................................................................. 5
ELT 210 Devices I ................................................................. 4
ELT 120 Digital I ................................................................. 3
CAD 100 Introduction to Computer Aided Design OR .................. 3
Equivalent Course with Consent of Program Coordinator (3-4)
Computer/Digital Literacy ....................................................... 3
ELT 289 Engineering and Electronics Technology Capstone Course.. 1
COED 198 Practicum OR ....................................................... 1-2
COE 199 Cooperative Education OR ........................................... (1-2)
Equivalent Course with Consent of Program Coordinator (1-2)
Subtotal: 25-27

ELT 222 Mechanics of Telephony ............................................... 3
ELT 224 Basic Telecoms Installation and Maintenance .................. 3
ISX 100 Industrial Safety ............................................................ (3)

Subtotal 25-27
**Medical Equipment Service Technician - 1503994119**

**General Education:**

Area 1: Written Communication or Oral Communications ................. 3

Area 2:

MAT 150 College Algebra OR ......................................................... 3

MAT 126 Technical Algebra and Trigonometry ................................... (3)

Subtotal: 6

**Core:**

ELT 110 Circuits I ........................................................................... 5

ELT 114 Circuits II ........................................................................... 5

ELT 210 Devices I ........................................................................... 4

ELT 120 Digital I ................................................................................ 3

CAD 100 Introduction to Computer Aided Design OR ....................... 3

Equivalent Course with Consent of Program Coordinator(3-4)

Computer/Digital Literacy ................................................................. 3

ELT 289 Engineering and Electronics Technology Capstone Course .... 1

COED 198 Practicum OR .................................................................. 1-2

COE 199 Cooperative Education OR .............................................. (1-2)

Equivalent Course with Consent of Program Coordinator (1-2)

Subtotal: 25-27

ELT 214 Devices II ........................................................................... 4

BIO 135 Basic Anatomy and Physiology with Laboratory ................. 4

BMT 200 Insight into Biomedical Equipment Technology ................. 2

BMT 202 General Equipment Studies .................................................. 3

BMT 204 Electrical, Mechanical, and Optical Principles .................. 3

BMT 205 Biomedical Equipment Practices I ..................................... 1

BMT 206 Specialized Equipment Studies ........................................... 3

BMT 207 Biomedical Equipment Practices II .................................... 1

BMT 209 Clinical ............................................................................. 2

Subtotal: 24

Total: 55-57

**Certificates**

**Electronics Tester – 1503993089**

(Offered at BLC, BSC, HEC, HPC, JFC, MYC, OWC, SEC, SKY, SMC)

ELT 110 Circuits I ........................................................................... 5

ELT 114 Circuits II ........................................................................... 5

ELT 210 Devices I ........................................................................... 4

ELT 214 Devices II ........................................................................... 4

ELT 120 Digital I ................................................................................ 3

ELT 220 Digital II ............................................................................. 3

Total: 13

**Electronics Technician – 1503993069**

(Offered at BLC, BSC, ELC, HEC, HPC, JFC, MYC, OWC, SEC, SKY, SMC)

ELT 110 Circuits I ........................................................................... 5

ELT 114 Circuits II ........................................................................... 5

ELT 210 Devices I ........................................................................... 4

ELT 214 Devices II ........................................................................... 4

ELT 120 Digital I ................................................................................ 3

ELT 220 Digital II ............................................................................. 3

Total: 24

**Maintenance Technician – 1503993059**

(Offered at BLC, BSC, ELC, HEC, HPC, JFC, MYC, OWC, SEC, SKY)

CAD 100 Introduction to Computer Aided Design OR ....................... 3

Equivalent Course with Consent of Program Coordinator(3-4)

ELT 110 Circuits I ........................................................................... 5

**Robots and automation Technician – 1503993099**

(Offered at BLC, BSC, HEC, HPC, JFC, MYC, OWC, SEC, SKY, SMC)

ELT 110 Circuits I ........................................................................... 5

ELT 114 Circuits II ........................................................................... 5

ELT 210 Devices I ........................................................................... 4

ELT 120 Digital I ................................................................................ 3

ELT 118 Manufacturing III, Computer Numerical Control OR ............. 3

CMM 132 CAD/CAM/CNC ................................................................ (3)

ELT 265 Applied Fluid Power .............................................................. 3

ELT 260 Robotics and Industrial Automation ...................................... 5

ELT 244 Electrical Machinery and Controls OR ............................... 4

ELT 270 Electrical Motor Controls I AND ......................................... 2

ELT 271 Electrical Motor Controls I Lab ............................................ 2

ELT 250 Programmable Logic Controllers OR ................................. 4

ELT 276 Programmable Logic Controllers AND ............................... 2

ELT 277 Programmable Logic Controllers Lab ................................... 2

Total: 36

**Digital Telephony Technician – 1503993119**

(Offered at BSC, JFC, MYC, SEC)

ELT 222 Mechanics of Telephony ..................................................... 3

ELT 224 Basic Telecoms Installation and Maintenance ...................... 3

ELT 226 Safety in the Workplace OR ............................................... 2

ISX 100 Industrial Safety .................................................................... (3)

ELT 110 Circuits I ........................................................................... 5

ELT 120 Digital I ................................................................................ 3

Computer/Digital Literacy ................................................................. 3

Total: 19-20

**Computer Maintenance Technician – 1503993029**

(Offered at BLC, BSC, ELC, HEC, HPC, JFC, MYC, OWC, SEC, SKY, SMC)

ELT 110 Circuits I ........................................................................... 5

ELT 120 Digital I ................................................................................ 3

Computer Literacy ............................................................................ 3

ELT 234 Computer Hardware Maintenance OR ................................. 3

IT 105 Computer Maintenance Essentials OR .................................... (3)

ELT 105 Computer Maintenance Essentials ...................................... (3)

ELT 232 Computer Software Maintenance OR ................................... 3

IT 205 Advanced Computer Maintenance OR .................................... (3)

ELT 205 Advanced Computer Maintenance ....................................... (3)

Total: 17

**Industrial Electronics Technician I – 1503993129**

(Offered at BLC, BSC, ELC, HEC, HPC, JFC, MYC, OWC, SEC, SKY)

ELT 110 Circuits I ........................................................................... 5

ELT 114 Circuits II ........................................................................... 5

ELT 120 Digital I ................................................................................ 3

ELT 250 Programmable Logic Controllers OR ................................. 4

ELT 276 Programmable Logic Controllers AND ............................... 2

ELT 277 Programmable Logic Controllers Lab ................................... 2

Total: 17

**Industrial Electronics Technician II – 1503993139**

(Offered at BLC, BSC, HEC, HPC, JFC, MYC, OWC, SEC, SKY)

ELT 110 Circuits I ........................................................................... 5

ELT 114 Circuits II ........................................................................... 5

ELT 210 Devices I ........................................................................... 4
Academic Curricula

ELT 214 Devices II .................................................. 4
ELT 120 Digital I ...................................................... 3
ELT 220 Digital II ...................................................... 3
ELT 244 Electrical Machinery and Controls OR .................. 4
EET 270 Electrical Motor Controls I AND ...................... (2)
EET 271 Electrical Motor Controls I Lab ......................... (2)
ELT 250 Programmable Logic Controllers OR ................. 4
EET 276 Programmable Logic Controllers AND ................. (2)
EET 277 Programmable Logic Controllers Lab .................. (2)
Total 32

Mechanical Technician – 1503993149
(Offered at BSC, HPC, JFC, MYC, OWC, SEC)

CAD 100 Introduction to Computer Aided Design OR .......... 3
Equivalent Course with Consent of Program Coordinator (3-4)
ELT 122 Mechanical Power Transmission Systems AND ...... 3
ELT 124 Mechanical Power Transmission Systems Lab OR . 1
IMT 150 Maintaining Industrial Equipment I AND .......... (3)
IMT 151 Maintaining Industrial Equipment I Lab .............. (2)
ELT 265 Applied Fluid Power .................................... 3
BRX 120 Basic Blueprint Reading ............................. 3
CAD 200 Intermediate Computer Aided Drafting .............. 4
Total 17-19

Automation Technician – 1503993229
(Offered at BLC, BSC, HPC, JFC, MYC, OWC, SEC, SKY)

ELT 110 Circuits I .................................................... 5
ELT 244 Electrical Machinery and Controls OR ............... 4
EET 270 Electrical Motor Controls I AND ...................... (2)
EET 271 Electrical Motor Controls I Lab ......................... (2)
ELT 250 Programmable Logic Controllers OR ................. 4
EET 276 Programmable Logic Controllers AND ................. (2)
EET 277 Programmable Logic Controllers Lab .................. (2)
ELT 265 Applied Fluid Power .................................... 3
Total 16

Communications Technician – 1503993039
(Offered at BLC, BSC, ELC, HPC, JFC, MYC, OWC, SEC, SMC)

ELT 110 Circuits I .................................................... 5
ELT 114 Circuits II .................................................... 5
ELT 210 Devices I ..................................................... 4
ELT 214 Devices II .................................................... 4
ELT 120 Digital I ...................................................... 3
ELT 240 Communications Electronics ........................... 6
Total 27

Instrumentation Technician – 1503993189
(Offered at BSC, ELC, JFC, MYC, OWC, SEC)

ELT 110 Circuits I .................................................... 5
ELT 114 Circuits II .................................................... 5
ISM 102 Fundamentals of Instrumentation ...................... 4
ISM 210 Fundamentals of Process Control ...................... 4
Total 18

General Medical Equipment Service Provider - 1503993169

ELT 110 Circuits I .................................................... 5
ELT 114 Circuits II .................................................... 5
ELT 210 Devices I ..................................................... 4
ELT 120 Digital I ...................................................... 3
Computer/Digital Literacy ................................. 3
ELT 234 Computer Hardware Maintenance OR ............... 3
IT 105 Computer Maintenance Essentials OR ............... (3)
ELT 105 Computer Maintenance Essentials OR ............... (3)
BIO 135 Basic Anatomy and Physiology with Laboratory .... 4
BMT 200 Insight into Biomedical Equipment Technology .... 2
BMT 202 General Equipment Studies .......................... 3
BMT 204 Electrical, Mechanical, and Optical Principles .... 3
BMT 205 Biomedical Equipment Practices I .................. 1
Total Credits 36

Environmental Science Technology

This program includes specialized environmental science courses in addition to general education coursework to provide individuals the background necessary for understanding the ecological relationships of the environment. Coursework also emphasizes the application of scientific principles to pollution control problems in accordance with state and federal regulations. Practical lab and field experience in sampling and analysis will be stressed. Emphasis is placed on developing the students’ ability to function effectively in a variety of job situations. Graduates of this program will be prepared to sample and analyze air, water and soil in accordance with state and federal regulations. Environmental technicians may be responsible for such job duties as air pollution surveillance, analysis of water and wastewater samples, ground water and surface water assessment, field sampling, data interpretation, and other support services to engineering and science professionals. Graduates in this field may be employed as technicians by federal, state and local governmental units as well as utilities, private industry, and environmental engineering consulting firms.

Admissions Requirements

The following information has been taken from the Rules of the Senate and is subject to change without notice. All applicants meeting the appropriate academic requirements shall be considered equally for admission to Bluegrass Community and Technical College or to any academic program thereof regardless of economic or social status, and without discrimination on the basis of race, color, religion, sex, marital status, beliefs, age, national origin, sexual orientation, or physical or mental disability.

In order to be admitted to the Environmental Science Technology (EST) Program, each student must be admitted to Bluegrass Community and Technical College.

In order to be admitted to the Environmental Science Technology Program, a student must:

1. Complete EST 150, EST 160, and MA 109 with a passing grade or transfer credit from an accredited institution for comparable courses (to be assessed by EST Coordinator), and
2. Attend a pre-admission conference with the EST Program coordinator or the coordinator’s designee.
## Associate in Applied Science

### Environmental Science Technology - 1505077019

*(Offered at BLC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I*</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II*</td>
<td>3</td>
</tr>
<tr>
<td>MA 109</td>
<td>College Algebra*</td>
<td>3</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Speaking* OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Intro to Interpersonal Communications* (3)</td>
<td></td>
</tr>
<tr>
<td>CIT 105</td>
<td>Intro to Computing</td>
<td>3</td>
</tr>
<tr>
<td>BIO 112</td>
<td>*Introduction to Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIO 111</td>
<td>Intro to Biolog Lab</td>
<td>1</td>
</tr>
<tr>
<td>CIS 130</td>
<td>Microcomputer Applications</td>
<td>3</td>
</tr>
<tr>
<td>CHE 170</td>
<td>General College Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHE 175</td>
<td>General College Chemistry Lab I</td>
<td>2</td>
</tr>
<tr>
<td>EST 160</td>
<td>Hydrologic Geology</td>
<td>3</td>
</tr>
<tr>
<td>EST 170</td>
<td>Environmental Sampling Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>EST 220</td>
<td>Pollution of Aquatic Ecosystems</td>
<td>3</td>
</tr>
<tr>
<td>EST 230</td>
<td>Aquatic Chemistry Lab</td>
<td>2</td>
</tr>
<tr>
<td>EST 240</td>
<td>Sources and Effects of Air Pollution</td>
<td>3</td>
</tr>
<tr>
<td>EST 250</td>
<td>Solid and Hazardous Waste Management</td>
<td>3</td>
</tr>
<tr>
<td>EST 260</td>
<td>Environmental Analysis Lab</td>
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</tr>
<tr>
<td>EST 270</td>
<td>Environmental Law and Regulation</td>
<td>3</td>
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<tr>
<td>EST 280</td>
<td>Environmental Trends Seminar</td>
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**Total Credits: 66**

### Technical Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PHY 151</td>
<td>Introductory Physics I</td>
<td>3</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education (Internship)</td>
<td>1-3</td>
</tr>
<tr>
<td>EST 299</td>
<td>Selected Topics in EST</td>
<td>1-3</td>
</tr>
<tr>
<td>STA 210</td>
<td>Statistics: A Force in Human Judgment</td>
<td>3</td>
</tr>
<tr>
<td>CAD 100</td>
<td>Intro to Computer-Aided Design</td>
<td>3</td>
</tr>
<tr>
<td>ACH 185</td>
<td>Computer-Aided Drafting I</td>
<td>3</td>
</tr>
<tr>
<td>GIS 110</td>
<td>Spatial Data Analysis</td>
<td>3</td>
</tr>
<tr>
<td>GIS 120</td>
<td>Introduction to Geographic Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIS 234</td>
<td>Advanced Spreadsheet Applications</td>
<td>3</td>
</tr>
<tr>
<td>ENG 203</td>
<td>Business Writing</td>
<td>3</td>
</tr>
<tr>
<td>CHE 180</td>
<td>General College Chemistry II</td>
<td>3</td>
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<tr>
<td>CHE 185</td>
<td>General College Chemistry Lab II</td>
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</tr>
<tr>
<td>GEO 210</td>
<td>Pollutions, Hazards, and Environmental Mgmt</td>
<td>3</td>
</tr>
<tr>
<td>GLY 220</td>
<td>Principles of Physical Geology</td>
<td>3</td>
</tr>
<tr>
<td>ECO 201</td>
<td>Principles of Economics I</td>
<td>3</td>
</tr>
<tr>
<td>CE 211</td>
<td>Surveying</td>
<td>4</td>
</tr>
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</table>

Courses not on this list may be approved at the coordinator’s discretion.

* Satisfies General Education requirement for AAS degree

### Environmental Technology

The environmental technology program has been developed in concert with various regulatory agencies, state universities and businesses and industries. Environmental Technicians conducts tests and field investigations to obtain data for use by environmental, engineering, and scientific personnel in determining sources and methods of controlling pollutants in air, water and soil, by utilizing knowledge of agriculture, chemistry, meteorology, engineering principles and applied technologies.

### Certificates

#### Hazardous Materials Technician - 1505073019

*(Offered at BLC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU 100</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>ENV 100</td>
<td>Environmental Mathematics</td>
<td>3</td>
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</table>

**Total Credits: 3**

#### Waste Processing Attendant - 1505073029

*(Offered at BLC)*

<table>
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<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>ENV 110</td>
<td>Introduction to Environmental Technology</td>
<td>4</td>
</tr>
<tr>
<td>ENV 111</td>
<td>Environmental Sampling Techniques Lab</td>
<td>2</td>
</tr>
<tr>
<td>ENV 140</td>
<td>Geology, Hydrology and Soils</td>
<td>4</td>
</tr>
<tr>
<td>ENV 141</td>
<td>Geology, Hydrology and Soils Lab</td>
<td>2</td>
</tr>
<tr>
<td>ENV 260</td>
<td>Hazardous Materials</td>
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<td>Hazardous Materials Lab</td>
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**Electives:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENV 293</td>
<td>Special Problems I</td>
<td>1</td>
</tr>
<tr>
<td>ENV 295</td>
<td>Special Problems II</td>
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<tr>
<td>ENV 297</td>
<td>Special Problems III</td>
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**Total Credits: 37**

#### Wastewater Treatment Plant Attendant - 1505073039

*(Offered at BLC)*

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<tr>
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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>
<td>2</td>
</tr>
<tr>
<td>ENV 290</td>
<td>Wastewater Treatment Technology</td>
<td>6</td>
</tr>
<tr>
<td>ENV 291</td>
<td>Wastewater Treatment Technology Lab</td>
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**Electives:**

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<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENV 293</td>
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<td>Special Problems II</td>
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<tr>
<td>ENV 297</td>
<td>Special Problems III</td>
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**Total Credits: 21**

#### Wastewater Treatment Plant Operator - 1505073049

*(Offered at BLC)*

<table>
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<tr>
<td>CPU 100</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>ENV 100</td>
<td>Environmental Mathematics</td>
<td>3</td>
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<tr>
<td>ENV 110</td>
<td>Introduction to Environmental Technology</td>
<td>4</td>
</tr>
<tr>
<td>ENV 111</td>
<td>Environmental Sampling Techniques Lab</td>
<td>2</td>
</tr>
<tr>
<td>ENV 140</td>
<td>Geology, Hydrology and Soils</td>
<td>4</td>
</tr>
<tr>
<td>ENV 141</td>
<td>Geology, Hydrology and Soils Lab</td>
<td>2</td>
</tr>
<tr>
<td>ENV 290</td>
<td>Wastewater Treatment Technology</td>
<td>6</td>
</tr>
<tr>
<td>ENV 291</td>
<td>Wastewater Treatment Technology Lab</td>
<td>2</td>
</tr>
<tr>
<td>TEC 200</td>
<td>Technical Communications</td>
<td>3</td>
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</table>

**Electives:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENV 293</td>
<td>Special Problems I</td>
<td>1</td>
</tr>
<tr>
<td>ENV 295</td>
<td>Special Problems II</td>
<td>2</td>
</tr>
<tr>
<td>ENV 297</td>
<td>Special Problems III</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits: 36**
Horseman Track graduates will have the knowledge and skills for a career in the equine/thoroughbred workforce such as grooms, assistant trainers, racing officials, farm management, bloodstock agents and other professions in the racing and breeding industries. Students will learn the principles and techniques as they relate to the breaking, prepping and training of horses; health and nutrition; equine management; and life skills necessary to be a professional in the equine/thoroughbred workforce. Imbedded in the Horseman Track curriculum is the Racehorse Care and Breaking Certificate to provide students with the basics of horse care and principles and techniques as they relate to the breaking and prepping of horses.

Other Certificates:

The Equine Industry Workforce Certificate will prepare students for entry level careers in the equine industry. Students will learn the basics of equine studies, equine physiology, and care of the racehorse. Lecture classes will be provided online through BCTC/NARA, while the hands-on laboratory work associated with the courses may be offered by BCTC/NARA or in partnerships with other KCTCS colleges and racecourses within their districts.

The Veterinary Assistant Certificate will prepare students for application into the AAS in Veterinary Technology program at Morehead State University. Students will receive a core of general education courses, as well as an introduction to animal sciences and physiology. The racehorse care class and one credit hour of co-operative education in a local veterinary clinic will provide the student with the work experience/job shadowing hours typically required for consideration of acceptance into a Veterinary Technology program.

**Associate in Applied Science**

**Equine Studies - 0105077019**

( Offered at BLC)

**General Education:**
- Quantitative Reasoning .............................................. 3
- Natural Sciences .......................................................... 3
- Social/Behavioral Sciences ............................................. 3
- Heritage/Humanities .................................................... 3
- Written Communication .................................................. 3
**Total General Education Requirements 15**

**Technical Core:**
- Computer/Digital Literacy .......................................... 0-3
- EQS 101 Introduction to the Thoroughbred .................... 3
- EQS 103 Racehorse Care ............................................. 1
- EQS 104 Racehorse Care Lab ....................................... 3
- EQS 110 Basic Equine Physiology .................................. 3
- EQS 125 Equine Nutrition ........................................... 3
- EQS 130 Introduction to the Racing Industry ................. 3
- EQS 200 Lameness in Racehorses ................................. 3
- EQS 240 Equine Legal and Business Principles ............. 3
- Technical Electives ..................................................... 6
**Total Technical Core 28-31**

**Jockey Track - 010507701**

( Offered at BLC)

**EQS 111 Introduction To Riding Racehorses ................. 1
EQS 112 Racehorse Riding Skills I ............................... 4
EQS 113 Racehorse Riding Skills II .............................. 4
EQS 212 Racehorse Riding Principles .......................... 3
EQS 213 Racehorse Riding Techniques ......................... 2
EQS 215 Life Skills for Jockeys ................................... 3
**Subtotal Jockey Track 17**

**Total Jockey Track AAS 60-63**

**Academic Curricula**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENV 110</td>
<td>Introduction to Environmental Technology</td>
<td>4</td>
</tr>
<tr>
<td>ENV 111</td>
<td>Environmental Sampling Techniques Lab</td>
<td>2</td>
</tr>
<tr>
<td>ENV 140</td>
<td>Geology, Hydrology and Soils</td>
<td>4</td>
</tr>
<tr>
<td>ENV 141</td>
<td>Geology, Hydrology and Soils Lab</td>
<td>2</td>
</tr>
<tr>
<td>ENV 280</td>
<td>Water Treatment Technology</td>
<td>6</td>
</tr>
<tr>
<td>ENV 281</td>
<td>Water Treatment Technology Lab</td>
<td>2</td>
</tr>
<tr>
<td>ENV 293</td>
<td>Special Problems I</td>
<td>(1)</td>
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<tr>
<td>ENV 295</td>
<td>Special Problems II</td>
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**Water Treatment Plant Operator - 1505073069**

( Offered at BLC)

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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>CPU 100</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>ENV 100</td>
<td>Environmental Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>ENV 110</td>
<td>Introduction to Environmental Technology</td>
<td>4</td>
</tr>
<tr>
<td>ENV 111</td>
<td>Environmental Sampling Techniques Lab</td>
<td>2</td>
</tr>
<tr>
<td>ENV 120</td>
<td>Environmental Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>ENV 121</td>
<td>Environmental Chemistry Lab</td>
<td>1</td>
</tr>
<tr>
<td>ENV 140</td>
<td>Geology, Hydrology and Soils</td>
<td>4</td>
</tr>
<tr>
<td>ENV 141</td>
<td>Geology, Hydrology and Soils Lab</td>
<td>2</td>
</tr>
<tr>
<td>ENV 270</td>
<td>Treatment and Disposal Technologies</td>
<td>3</td>
</tr>
<tr>
<td>ENV 280</td>
<td>Water Treatment Technology</td>
<td>6</td>
</tr>
<tr>
<td>ENV 281</td>
<td>Water Treatment Technology Lab</td>
<td>2</td>
</tr>
<tr>
<td>TEC 200</td>
<td>Technical Communications</td>
<td>3</td>
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<tr>
<td>ENV 293</td>
<td>Special Problems I</td>
<td>(1)</td>
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<tr>
<td>ENV 295</td>
<td>Special Problems II</td>
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<tr>
<td>ENV 297</td>
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<tr>
<td>Total Credits</td>
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</tr>
</tbody>
</table>

**Equine Studies**

The Equine Studies Program prepares students for entrance into the equine workforce with a focus on the thoroughbred racing industry. A core curriculum provides students with a foundation of knowledge applicable to any career in the equine workforce. Students will learn the basics of horse care, anatomy and physiology, lameness, health and nutrition and equine business principles. Students will also learn all aspects of the equine industry as it relates to the thoroughbred industry including organizations, regulations, and the life skills necessary for successful careers in the industry.

The program of study provides a foundation of education and training geared toward the expectations of employers in the equine/thoroughbred industries within two degree areas: Jockey Track and Horseman Track. Imbedded within the curriculum for each track are diplomas and certificates that provide the basic foundational skills for entry or mid-level employment in the respective area of the industry.

Jockey Track degree and diploma graduates will have the knowledge and skills for a career as a professional rider. Students will learn principles of balance as it relates to efficient racehorse exercise; proper position and use of hands, arms, feet, legs, back and head when riding or exercising a racehorse; requirements for advancing to a professional jockey career; and life skills necessary to be a professional racehorse rider or jockey. Imbedded within the Jockey Track curriculum is the Exercise Rider Certificate that provides basic skills and techniques to prepare the student to become a professional exercise rider.

Horseman Track graduates will have the knowledge and skills for a career in the equine/thoroughbred workforce such as grooms, assistanttrainers, racing officials, farm management, bloodstock agents and other professions in the racing and breeding industries. Students will learn the principles and techniques as they relate to the breaking, prepping and training of horses; health and nutrition; equine management; and life skills necessary to be a professional in the equine/thoroughbred workforce. Imbedded in the Horseman Track curriculum is the Racehorse Care and Breaking Certificate to provide students with the basics of horse care and principles and techniques as they relate to the breaking and prepping of horses.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EQS 118</td>
<td>Equine Bloodstock</td>
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</tr>
<tr>
<td>EQS 121</td>
<td>Introduction to Breaking and Training Racehorses</td>
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</tr>
<tr>
<td>EQS 122</td>
<td>Yearling Breaking and Training</td>
<td>3</td>
</tr>
<tr>
<td>EQS 123</td>
<td>Breaking and Prepping Two Year Olds</td>
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<td>EQS 223</td>
<td>Training Principles and Practices</td>
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<tr>
<td>EQS 225</td>
<td>Life Skills for Horsemen</td>
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**Approved Technical Electives**

Any EQM or EQS course from alternate track. Six (6) credit hours of electives must be taken from the approved list. This list is not all inclusive. Other technical elective courses may be taken with approval of the program advisor/faculty.

- SPA 101 | Elementary Spanish                                      | 4       |
- EQM 120  | Introduction to Commercial Breeding Practices          | 3       |
- EQS 118  | Equine Bloodstock                                      | 3       |
- EQS 299  | Equine Cooperative Education (internship)              | 1-9     |

**Diplomas**

**Equine Studies - 0105074019**

**(Offered at BLC)**

**General Education Core**

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<th>Area I</th>
<th>Credits</th>
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<tbody>
<tr>
<td>(Written Communication / Oral Communications, or Humanities/Heritage)</td>
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<table>
<thead>
<tr>
<th>Area II</th>
<th>Credits</th>
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<tbody>
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<td>(Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning)</td>
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<table>
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**Technical Core**

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<th>Computer/Digital Literacy</th>
<th>Credits</th>
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<tr>
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<td>0-3</td>
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<tr>
<td>EQS 101</td>
<td>Introduction to the Thoroughbred</td>
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<td>EQS 103</td>
<td>Racehorse Care</td>
</tr>
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<td>EQS 104</td>
<td>Racehorse Care Lab</td>
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<td>EQS 110</td>
<td>Basic Equine Physiology</td>
</tr>
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<td>EQS 125</td>
<td>Equine Nutrition</td>
</tr>
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<td>EQS 130</td>
<td>Introduction to the Racing Industry</td>
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<tr>
<td>EQS 200</td>
<td>Lameness in Racehorses</td>
</tr>
<tr>
<td>EQS 240</td>
<td>Equine Legal and Business Principles</td>
</tr>
<tr>
<td>EQS 299</td>
<td>Equine Cooperative Education (1 credit hour min required in diploma. Additional credits may count toward elective credits.)</td>
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<table>
<thead>
<tr>
<th>Technical Electives</th>
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<tr>
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</table>

**Jockey Track - 010507401**

**(Offered at BLC)**

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EQS 111</td>
<td>Introduction to Riding Racehorses</td>
<td>1</td>
</tr>
<tr>
<td>EQS 112</td>
<td>Racehorse Riding Skills I</td>
<td>4</td>
</tr>
<tr>
<td>EQS 113</td>
<td>Racehorse Riding Skills II</td>
<td>4</td>
</tr>
<tr>
<td>EQS 212</td>
<td>Racehorse Riding Principles</td>
<td>3</td>
</tr>
<tr>
<td>EQS 213</td>
<td>Racehorse Riding Techniques</td>
<td>2</td>
</tr>
<tr>
<td>EQS 215</td>
<td>Life Skills for Jockeys</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal Jockey Track</strong></td>
<td><strong>17</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Total Jockey Track Diploma</strong></td>
<td><strong>52-55</strong></td>
</tr>
</tbody>
</table>

**Horseman Track - 010507402**

**(Offered at BLC)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EQS 118</td>
<td>Equine Bloodstock</td>
<td>3</td>
</tr>
<tr>
<td>EQS 121</td>
<td>Introduction to Breaking and Training Racehorses</td>
<td>1</td>
</tr>
<tr>
<td>EQS 122</td>
<td>Yearling Breaking and Training</td>
<td>3</td>
</tr>
<tr>
<td>EQS 123</td>
<td>Breaking and Training Yearlings/Two Year Olds</td>
<td>3</td>
</tr>
<tr>
<td>EQS 223</td>
<td>Training Principles and Practices</td>
<td>4</td>
</tr>
<tr>
<td>EQS 225</td>
<td>Life Skills for Horsemen</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal Horseman Track</strong></td>
<td><strong>17</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Total Horseman Track</strong></td>
<td><strong>52-55</strong></td>
</tr>
</tbody>
</table>

**Approved Technical Electives**

Any EQM or EQS course from alternate track. Six (6) credit hours of electives must be taken from the approved list. This list is not all inclusive. Other technical elective courses may be taken with approval of the program advisor/faculty.

- SPA 101 | Elementary Spanish                                      | 4       |
- EQM 120  | Introduction to Commercial Breeding Practices          | 3       |
- EQS 118  | Equine Bloodstock                                      | 3       |
- EQS 299  | Equine Cooperative Education (internship)              | 1-9     |

**Certificate**

**Exercise Rider - 0105073019**

**(Offered at BLC)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EQS 101</td>
<td>Introduction to the Thoroughbred</td>
<td>3</td>
</tr>
<tr>
<td>EQS 103</td>
<td>Racehorse Care</td>
<td>1</td>
</tr>
<tr>
<td>EQS 104</td>
<td>Racehorse Care Lab</td>
<td>3</td>
</tr>
<tr>
<td>EQS 110</td>
<td>Basic Equine Physiology</td>
<td>3</td>
</tr>
<tr>
<td>EQS 112</td>
<td>Racehorse Riding Skills I</td>
<td>4</td>
</tr>
<tr>
<td>EQS 113</td>
<td>Racehorse Riding Skills II</td>
<td>4</td>
</tr>
<tr>
<td>EQS 130</td>
<td>Introduction to the Racing Industry</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>22</strong></td>
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</table>

**Racehorse Care and Breaking - 0105073049**

**(Offered at BLC)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EQS 101</td>
<td>Introduction to the Thoroughbred</td>
<td>3</td>
</tr>
<tr>
<td>EQS 103</td>
<td>Racehorse Care</td>
<td>1</td>
</tr>
<tr>
<td>EQS 104</td>
<td>Racehorse Care Lab</td>
<td>3</td>
</tr>
<tr>
<td>EQS 110</td>
<td>Basic Equine Physiology</td>
<td>3</td>
</tr>
<tr>
<td>EQS 112</td>
<td>Introduction to Breaking and Training Racehorses</td>
<td>1</td>
</tr>
<tr>
<td>EQS 123</td>
<td>Breaking and Prepping Two Year Olds</td>
<td>3</td>
</tr>
<tr>
<td>EQS 125</td>
<td>Equine Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>EQS 130</td>
<td>Introduction to the Racing Industry</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>20</strong></td>
</tr>
</tbody>
</table>

**Equine Industry Workforce - 0105073039**

**(Offered at BLC)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EQS 101</td>
<td>Introduction to the Thoroughbred</td>
<td>3</td>
</tr>
<tr>
<td>EQS 103</td>
<td>Racehorse Care</td>
<td>1</td>
</tr>
<tr>
<td>EQS 104</td>
<td>Racehorse Care Lab</td>
<td>3</td>
</tr>
<tr>
<td>EQS 299</td>
<td>Equine Co-op</td>
<td>1</td>
</tr>
<tr>
<td>EQS 110</td>
<td>Basic Equine Physiology</td>
<td>3</td>
</tr>
<tr>
<td>EQS 130</td>
<td>Introduction to the Racing Industry</td>
<td>3</td>
</tr>
<tr>
<td>EQS 200</td>
<td>Lameness in Racehorses</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

**Veterinarian Assistant  - 0105073059**

**(Offered at BLC, MYC)**

<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>BIO 112</td>
<td>Introduction to Biology</td>
<td>3</td>
</tr>
<tr>
<td>CHE 140</td>
<td>Introductory General Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHE 145</td>
<td>Introductory General Chemistry Lab</td>
<td>1</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>MAT 116</td>
<td>Technical Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>AGR 240</td>
<td>Introduction to Animal Science</td>
<td>3</td>
</tr>
<tr>
<td>EQS 103</td>
<td>Racehorse Care</td>
<td>1</td>
</tr>
<tr>
<td>EQS 104</td>
<td>Racehorse Care Lab</td>
<td>3</td>
</tr>
<tr>
<td>EQS 110</td>
<td>Basic Equine Physiology</td>
<td>3</td>
</tr>
<tr>
<td>EQS 299</td>
<td>Equine Co-op</td>
<td>1</td>
</tr>
</tbody>
</table>

| **Total Credits** | |
|-------------------|----------------
|                   | **27**  |
Exercise Science

The Personal Trainer Certificate Program is comprised of American Council on Exercise (ACE) curricula, and will provide real-world experiences, skills, and knowledge needed to assess, design, and implement a personalized exercise program for clients. Graduates are eligible to take the ACE Personal Trainer Exam to become ACE-certified personal trainers.

Certificate
Personal Trainer – 5109993029
(Offered at BSC, GTW)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIT 103</td>
<td>3</td>
</tr>
<tr>
<td>CLA 131</td>
<td>3</td>
</tr>
<tr>
<td>AHS 115</td>
<td>3</td>
</tr>
<tr>
<td>CPR 100</td>
<td>1</td>
</tr>
<tr>
<td>SFA 100</td>
<td>1</td>
</tr>
<tr>
<td>BAS 200</td>
<td>3</td>
</tr>
<tr>
<td>BAS 288</td>
<td>3</td>
</tr>
<tr>
<td>MSG 100</td>
<td>4</td>
</tr>
<tr>
<td>BIO 135</td>
<td>4</td>
</tr>
<tr>
<td>KHP 150</td>
<td>3</td>
</tr>
<tr>
<td>KHP 160</td>
<td>3</td>
</tr>
<tr>
<td>KHP 225</td>
<td>3</td>
</tr>
<tr>
<td>KHP 235</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Credits 23

Financial and Customer Services

This certificate is designed to provide students with the financial, communication, and customer service skills necessary to be successful in the global financial services market. The certificate will require four primary areas of study including two fundamental courses, Spanish and customer service, and two courses in finance and communication, which enable different areas of emphasis.

Certificate
Financial and Customer Services Certificate – 5208033019
(Offered at OWC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPA 101</td>
<td>4</td>
</tr>
<tr>
<td>QMS 201</td>
<td>3</td>
</tr>
<tr>
<td>OST 235</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>3</td>
</tr>
<tr>
<td>BAS 120</td>
<td>3</td>
</tr>
<tr>
<td>BAS 294</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits 13

Fire/Rescue Science Technology

Fire/Rescue Science Technology:

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

Students may enter the program with or without experience in emergency services. The degree, certificate, and diploma programs that are offered can help you in obtaining employment in various emergency service fields, or if you are already a firefighter, help you get that promotion you have been waiting for. Classes are offered through State Fire/Rescue Training and may be offered in various formats such as Web courses, hybrid courses, and traditional classroom offerings. For more information regarding this program, contact your local State Fire/Rescue Training Area Office or see the list of contacts on page 69.

Emergency Medical Technician Certificate:

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

Associate in Applied Science

Fire/Rescue Science Technology - 4302037019
(Offered at ASC, BLC, BSC, ELC, GTW, JFC, MDC, MYC, OWC, SKY, SMC, WKC)

General Education:

- Heritage/Humanities ........................................... 3
- Quantitative Reasoning ........................................... 3
- Social/Behavioral Sciences ..................................... 3
- Written Communication .......................................... 3
- Total Subtotal .................................................. 15

Technical Courses:

- FRS 101 Introduction to Fire Service ........................................... 3
- FRS 102 Firefighters Basic Skills I .......................................... 3
- FRS 103 Firefighters Basic Skills II ......................................... 3
- FRS 104 Firefighters Intermediate Skills I ................................. 3
- FRS 105 Firefighters Intermediate Skills II ................................. 3
- FRS 201 Firefighters Advanced Skills I ..................................... 3
- FRS 202 Firefighters Advanced Skills II .................................... 3
- FRS 203 Firefighters Advanced Skills III ................................... 3
- FRS 204 EMT First Responder ............................................. 3
- FRS 205 Fire Officer I .................................................. 5
- FRS 206 Fire Officer II .................................................. 8
- FRS 207 Fire Officer III .................................................. 6
- Total Subtotal .................................................. 46-49
- Total Credits .................................................. 61-64

NOTE: All FRS courses are available in modules; see course description section.

Diploma

Fire Chief - 4302034039
(Offered at ASC, BLC, BSC, 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
The Funeral Service program provides the educational foundation needed to seek a Kentucky or other state licensure, both as a funeral director and an embalmer.

Students in the Southeast Kentucky Community and Technical College Funeral Service program must take the National Board Examination as a requirement for graduation.

The Funeral Service program at Southeast Kentucky Community and Technical College is accredited by The American Board of Funeral Service Education (ABFSE), 3414 Ashland Avenue, Suite G, St. Joseph, Missouri 64506 (816) 233 3747 (www.abfse.org)
Comply with federal, state and local regulatory guidelines of funeral service.

Uphold responsibility for public health, safety, and welfare in caring for human remains.

Enlarge the background and knowledge of students about the funeral service profession.

Educate students in every phase of funeral service and to help enable them to develop proficiency and skills necessary for the profession, as defined in the Preamble of the Standards for the American Board of Funeral Service Education.

Educate students concerning the responsibilities of the funeral service profession to the community at large.

Execute high standards of ethical conduct.

Educate students through a funeral service curriculum that is appropriate to the post-secondary level of instruction.

Encourage student and faculty research in the field of funeral service.

**Funeral Service Admission Criteria:**

In order to be considered by the Admissions Committee for admission to the Funeral Service Program, each applicant must submit the following documentation by Nov 1 for the spring semester or April 1 for the fall semester in which the student is applying for admission:

Application for admission to the college;

Official high school transcript from a public high school, a certified non-public high school, a non-certified high school, a passing GED official score report or the student has completed a home school curriculum, subject both to the ability to benefit criteria for KCTCS financial aid purposes and to the KCTCS Assessment and Placement Policy.;

Official transcripts of all postsecondary education;

ACT (or SAT) and/or, ASSET or COMPASS test results;

Documentation that ENG 101, MAT 110/146 or higher, PSY 110 or SOC 101, Heritage/Humanities, and Oral Communications courses will be completed by the last day of the semester preceding admission;

Documentation of attendance at a Funeral Service Program Pre-Admission Conference or an interview with the program coordinator or designee; and

Completion of a selective admissions form.

Applications for admission to the Program may be accepted by the Admissions Committee later than the stated dates provided that:

Positions are still unfilled and

All the required documentation has been submitted.

Preference will be given to applicants:

With an ACT composite score of 20 or above (or equivalent on the SAT, ASSET or COMPASS);

Who have completed 24 or more college credit hours with a GPA of 3.5 or better (4.0 scale).

A student who withdraws from or earns lower than a “C” in a Funeral Service Program core course will be dropped from the Program.

Application for readmission to the Funeral Service Program must be made by the established college program deadline.

Readmission to the Funeral Service Program will be dependent upon available resources.

In order to be considered for readmission by the Funeral Service Program Admissions Committee, the applicant must:

a. submit a written request to the Program Coordinator presenting documentation to justify readmission; and

b. meet current admission guidelines.

A student may be readmitted to the Funeral Service Program one time if a student furnishes sufficient evidence of remedial study, additional preparation, or resolution of factors contributing to unsuccessful course preparation. The student must repeat any course in the Funeral Service program in which a grade lower than “C” was earned. A student who withdraws or earns a grade lower than a “C” in a core course after readmission will be automatically and permanently dismissed from the program.

If more than two years have elapsed since initial enrollment in the first Funeral Service course, an applicant must repeat all Funeral Service courses unless the student has demonstrated current competency by passing exams equivalent to comprehensive course final examinations (both written and practical skills) if applicable.

**Transfer Students**

Students wishing to transfer from an accredited Funeral Service program will be considered on an individual basis.

Admission will be dependent upon available resources.

Students must meet all program admission requirements set by the college.

No grade less than “C” in a course equivalent to a Funeral Service core course will be accepted for transfer.

**Program Requirements**

In order to protect the Funeral Service provider, external facilities used by our students require data related to the health status of students. Therefore, prior to the first day of classes the student must submit the following:

PPD skin test results for TB;

Two MMR immunizations or verification of having had a prior case of measles as certified by a physician if born after 1956;

Hepatitis B vaccine series; and

Two doses of Varivax or verification of a known case of chicken pox.

In addition, a student must submit to a criminal background check conducted by a provider approved by KCTCS. A failed background check, as determined by the Kentucky Board of Embalmers and Funeral Directors, or a refusal to submit to a background check will be just cause to remove a student from the program.
General Occupational/Technical Studies

The Associate in Applied Science degree in General Occupational/Technical Studies provides flexible alternatives for meeting student and employer needs. This program serves two general purposes: 1) Individualized program – provides a flexible curriculum that can be designed to meet specific student and workplace needs, and 2) Degree completion – provides a structure through which credit may be granted for significant prior learning experiences in occupational/technical areas.

Credit earned through certificate and diploma program completion will be applicable toward the Associate in Applied Science in General Occupational/Technical Studies degree when consistent with the objectives of the student’s individual plan of study. This heavily advisor-driven model can combine certificates and/or diplomas in different disciplines for meeting employer needs for unique skill combinations for which there is no established degree program. As much as twenty hours of credit for experiential learning may be applied toward degree completion. KCTCS certificate and diploma credit and acceptable credit transferred from other colleges may also be applied to a student’s program completion plan. At least 25 percent of the approved curriculum credits must be completed at the KCTCS institution granting the degree.

American Technical Education (ATE) offers 18 Associate in Applied Science degree programs: Architectural Technology, Civil Engineering, Computer Information Systems, and Environmental Science Technology. The acquisition of a two-year technical degree coupled with a Certificate in GIS Technology will make a graduate more marketable in his/her respective field. Those pursuing a B.A. or B.S. degree in geography will also find the curriculum tailored to their respective degree program. The GIS Technology Certificate requires the completion of eighteen (18) credit hours of coursework. Non-certificate seeking students are free to take courses in GIS. All students pursuing the certificate must take the designated four core courses and technical electives.

Certificate

Geographic Information Systems Technology
(Offered at BLC)

A Geographic Information System (GIS) is a powerful combination of mapping technology and databases, that, when combined, may create an array of spatially arranged data on a map surface for detailed analysis. Once the domain of a few specialized government agencies and the military, GIS is now utilized by virtually every branch of the government and has become commonplace throughout the private sector. GIS may be employed for a stunning variety of applications: environmental, marketing, demographic and urban planning are just a few of the fields in which GIS is currently utilized.

All students enrolled at Bluegrass Community and Technical College are eligible to pursue the GIS Technology Certificate. There is no application to enroll in the certificate, but it is suggested that if you elect to pursue the certificate that you inform the coordinator of the GIS Certificate as well as your technical advisor and the chair of your technical degree program. The curriculum is tailored to those enrolled in the following technical degree programs: Architectural Technology, Civil Engineering, Computer Information Systems and Environmental Science Technology. The acquisition of a two-year technical degree coupled with a Certificate in GIS Technology will make a graduate more marketable in his/her respective field. Those pursuing a B.A. or B.S. degree in geography will also find the curriculum tailored to their respective degree program. The GIS Technology Certificate requires the completion of eighteen (18) credit hours of coursework. Non-certificate seeking students are free to take courses in GIS. All students pursuing the certificate must take the designated four core courses and technical electives.

Technical Core:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Offered at BLC</th>
</tr>
</thead>
<tbody>
<tr>
<td>GIS 110</td>
<td>Spatial Data Analysis and Map Interpretation</td>
<td>BLC</td>
</tr>
<tr>
<td>GIS 120</td>
<td>Introduction to Geographic Information Systems</td>
<td>BLC</td>
</tr>
<tr>
<td>GIS 210</td>
<td>Advanced Geographic Information Systems</td>
<td>BLC</td>
</tr>
<tr>
<td>CTT 105</td>
<td>Introduction to Computers</td>
<td>BLC</td>
</tr>
<tr>
<td>Technical Electives</td>
<td></td>
<td>BLC</td>
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Total Credits: 18

Technical Electives*: Choose six (6) credits from the following Technical Elective Courses.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Offered at BLC</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO 130</td>
<td>Earth’s Physical Environment</td>
<td>BLC</td>
</tr>
<tr>
<td>GEO 162</td>
<td>Introduction to Global Environmental Issues</td>
<td>BLC</td>
</tr>
<tr>
<td>CTT 170</td>
<td>Introduction to Database Design</td>
<td>BLC</td>
</tr>
<tr>
<td>CTT 170</td>
<td>Approved Level I or Level II CTT Programming Language Course</td>
<td>BLC</td>
</tr>
<tr>
<td>EST 160</td>
<td>Fundamentals of Hydrological Geology</td>
<td>BLC</td>
</tr>
<tr>
<td>EST 250</td>
<td>Fundamentals of Solid Waste Management</td>
<td>BLC</td>
</tr>
<tr>
<td>CAD 100</td>
<td>Introduction to Computer-Aided Design</td>
<td>BLC</td>
</tr>
<tr>
<td>CAD 200</td>
<td>Intermediate Computer-Aided Design</td>
<td>BLC</td>
</tr>
<tr>
<td>ACH 195</td>
<td>Computer-Aided Drafting I</td>
<td>BLC</td>
</tr>
<tr>
<td>ACH 180</td>
<td>Special Topics in Architectural Technology</td>
<td>BLC</td>
</tr>
<tr>
<td>ACH 298</td>
<td>Computer 3D Modeling</td>
<td>BLC</td>
</tr>
<tr>
<td>CET 150</td>
<td>Civil Engineering Graphics</td>
<td>BLC</td>
</tr>
<tr>
<td>CET 220</td>
<td>Intermediate Surveying</td>
<td>BLC</td>
</tr>
</tbody>
</table>

*If computer/digital literacy is demonstrated by a competency exam, an additional three credit hour course is required.

The student must have a plan of study on file in the academic affairs office.

A combination of general education and technical courses should not exceed 68 credits.
**Global Studies**

The Associate of Applied Science Degree in Global Studies (Transfer) is designed to prepare students to be more globally aware and globally literate employees and citizens of the Commonwealth of Kentucky, the United States, and the world. It exposes students to a diverse set of courses and competencies which will prepare them to live and work in settings with diverse ethnic and cultural populations and to function more effectively as members of an increasingly interconnected world.

### Associate in Applied Science

**Global Studies - 3020017019**  
(*Offered at JFC*)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I AND</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II OR</td>
<td>3</td>
</tr>
<tr>
<td>ENG 105</td>
<td>Writing: An Accelerated Course¹ and,</td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td>Global Studies Humanities/Fine Arts⁴</td>
<td></td>
</tr>
<tr>
<td>MAT 146</td>
<td>Contemporary College Mathematics OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra¹,</td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td>Natural Sciences¹</td>
<td>3-4</td>
</tr>
<tr>
<td></td>
<td>Social/Behavioral Sciences¹</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Heritage/Humanities¹</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Computer/Digital Literacy¹</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Introduction to Intercultural Communication¹</td>
<td></td>
</tr>
<tr>
<td>COM 254</td>
<td>Foreign Language</td>
<td>8</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 from</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a non-KCTCS accredited higher education institution)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Global Studies Heritage¹</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Global Studies Humanities/Fine Arts¹</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Global Studies Natural Science/Business¹</td>
<td>6-7</td>
</tr>
<tr>
<td></td>
<td>Global Studies Social Interaction¹</td>
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</tr>
<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 ELC, JFC*)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 254</td>
<td>Introduction to Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Foreign Language</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Global Studies Heritage¹</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Global Studies Humanities/Fine Arts¹</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Global Studies Natural Science/Business¹</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Global Studies Social Interaction¹</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total**  
19

² Select from Global Studies Humanities/Fine Arts list.
³ Select from Global Studies Heritage list.
⁴ Select from Global Studies Natural Science list.
⁵ Select from Global Studies Social Interaction list.

**Health and Wellness Technology**

The Health and Wellness Technology degree offers a flexible, innovative curriculum designed to meet the changing needs of the health care marketplace. The program will educate students in the principles of integrative modalities and the promotion of health and well-being. The program will provide students with the skills and knowledge necessary to work in a variety of settings, including but not limited to, hospitals, massage clinics, rehabilitation clinics, spas, behavioral health clinics, wellness/fitness centers, doctor’s offices, private practice, and athletic programs at the high school, college, or professional level.

The Massage Therapy Certificate Program will train the Massage Therapist in techniques ranging from an entry level Swedish Massage, for its therapeutic and relaxation benefits, through advanced clinical massage (sports and orthopedic massage) for the specific needs of athletes and to aid in recovery and rehabilitation from illness, injury and surgery. Using medical model, therapists will have expanded knowledge in Anatomy and Physiology, Kinesiology and Medical Terminology. Other modalities are introduced to the Massage Therapist’s education to enhance their skills and knowledge. Business education is included in the program to assist therapists in the operation of a practice.

### Associate in Applied Science

**Health and Wellness Technology - 5109997019**  
(*Offered at GTW*)

**Massage Therapy Track - 510999701**  
(*Offered at GTW*)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>MIT 103</td>
<td>Digital Literacy</td>
<td>0-3</td>
</tr>
<tr>
<td>CLA 131</td>
<td>Medical Office Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology from Greek and Latin OR</td>
<td>(3)</td>
</tr>
<tr>
<td>CPR 100</td>
<td>CPR for the Healthcare Professional</td>
<td>1</td>
</tr>
<tr>
<td>SFA 100</td>
<td>Safety and First Aid</td>
<td>1</td>
</tr>
<tr>
<td>BAS 200</td>
<td>Small Business Management OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 288</td>
<td>Personal and Organizational Leadership</td>
<td>(3)</td>
</tr>
<tr>
<td>MSG 100</td>
<td>Musculoskeletal Anatomy and Physiology I</td>
<td>4</td>
</tr>
<tr>
<td>MSG 110</td>
<td>Musculoskeletal Anatomy and Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>MSG 125</td>
<td>Massage Technique I</td>
<td>3</td>
</tr>
<tr>
<td>MSG 135</td>
<td>Massage Technique II</td>
<td>3</td>
</tr>
<tr>
<td>MSG 205</td>
<td>Advanced Clinical Massage I</td>
<td>3</td>
</tr>
<tr>
<td>MSG 210</td>
<td>Advanced Clinical Massage II</td>
<td>3</td>
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<tr>
<td>MSG 215</td>
<td>Massage Therapy Student Clinic</td>
<td>2</td>
</tr>
<tr>
<td>MSG 220</td>
<td>Massage Therapy Practice</td>
<td>3</td>
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</tbody>
</table>

**Total Credits (AAS)**  
61-68
Certificate

**Massage Therapy - 5109993019**
*(Offered at GTW)*

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tr>
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</tr>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek and Latin OR</td>
<td>(3)</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology</td>
<td>(3)</td>
</tr>
<tr>
<td>CPR 100</td>
<td>CPR for the Healthcare Professional</td>
<td>1</td>
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<tr>
<td>MSG 100</td>
<td>Musculoskeletal Anatomy and Physiology I</td>
<td>4</td>
</tr>
<tr>
<td>MSG 110</td>
<td>Musculoskeletal Anatomy and Physiology II</td>
<td>4</td>
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<tr>
<td>MSG 125</td>
<td>Massage Technique I</td>
<td>3</td>
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<tr>
<td>MSG 135</td>
<td>Massage Technique II</td>
<td>3</td>
</tr>
<tr>
<td>MSG 205</td>
<td>Advanced Clinical Massage I</td>
<td>3</td>
</tr>
<tr>
<td>MSG 210</td>
<td>Advanced Clinical Massage II</td>
<td>3</td>
</tr>
<tr>
<td>MSG 215</td>
<td>Massage Therapy Student Clinic</td>
<td>2</td>
</tr>
<tr>
<td>MSG 220</td>
<td>Massage Therapy Pathology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits** 29

**Health Care Foundations**

This certificate will prepare entry-level health care workers with basic health care knowledge and skills in the areas of health care delivery and management, health care communication, basic skills I & II, pharmacology, clinical pathophysiology and medical terminology.

**Certificate**

**Health Care Foundations-Basic - 5100003030**
*(Offered at ASC, JFC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HST 101</td>
<td>Health Care Basic Skills I OR</td>
<td>3</td>
</tr>
<tr>
<td>HST 104</td>
<td>Health Care Basic Skills I with Clinical</td>
<td>(3.5)</td>
</tr>
<tr>
<td>HST 102</td>
<td>Health Care Delivery &amp; Management</td>
<td>2</td>
</tr>
<tr>
<td>HST 103</td>
<td>Health Care Communication</td>
<td>1</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Subtotal** 11-11.5

**Health Care Foundations-Intermediate - 5100003020**
*(Offered at ASC, JFC)*

<table>
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<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HST 101</td>
<td>Health Care Basic Skills I OR</td>
<td>3</td>
</tr>
<tr>
<td>HST 104</td>
<td>Health Care Basic Skills I with Clinical</td>
<td>(3.5)</td>
</tr>
<tr>
<td>HST 102</td>
<td>Health Care Delivery &amp; Management</td>
<td>3</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>HST 121</td>
<td>Pharmacology</td>
<td>2</td>
</tr>
<tr>
<td>HST 122</td>
<td>Clinical Pathophysiology</td>
<td>3</td>
</tr>
<tr>
<td>HST 123</td>
<td>Health Care Basic Skills II</td>
<td>2</td>
</tr>
</tbody>
</table>

**Subtotal** 18-18.5

**Health Information Technology**

This program prepares the graduate to take an active role in the field of health information management. Graduates will interact with physicians, health professionals, and financial and administrative staffs to ensure the protection of information systems. Graduates will help determine health information budgets, resources and policies, utilizing current and accurate data. The curriculum includes course work in the supporting sciences and general education areas. Classroom instruction is supplemented with learning experiences in the campus laboratory and in area health care facilities. Students enrolled in the Health Information Program are required to achieve a minimum grade of “C” in each course in the program.

Health Information Technicians are employed in hospitals, medical clinics, nursing homes, other health care facilities and industry. Graduates with the AAS degree are qualified to write the American Health Information Management Association’s / Commission on Certification for Health Informatics and Information Management (CCHIIM) Registered Health Information Technician examination and the CCA coding examination. Graduates of the medical records coding specialist certificate may write the American Health Information Management Association’s CCA coding examination and the American Academy of Professional Coders’ CPC-A (and others as qualified) coding examinations.

Documentation of computer literacy as defined by KCTCS is required prior to enrolling in the first HIT course.

The Associate in Applied Science Degree Health Information Technology Program at Jefferson Community and Technical College is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM). Additional information may be found at CAHIIM’s website URL: http://cahiim.org.

**Associate in Applied Science**

**Health Information Technology - 5107077019**
*(Offered at BLC, GTW, HZC, JFC)*

**General Education Requirements:**

<table>
<thead>
<tr>
<th>Course Code</th>
<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>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
<td>(3)</td>
</tr>
<tr>
<td>BIO 135</td>
<td>Human Anatomy and Physiology with laboratory OR</td>
<td>4</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy and Physiology I AND</td>
<td>4</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy and Physiology II</td>
<td>(4)</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra</td>
<td>(3)</td>
</tr>
<tr>
<td>PSY 110</td>
<td>General Psychology OR</td>
<td>3</td>
</tr>
<tr>
<td>SOC 101</td>
<td>Introduction to Sociology</td>
<td>(3)</td>
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<tr>
<td></td>
<td>Heritage/Humanities</td>
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</table>

**Subtotal** 22-26

**Technical Course Requirements:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek or Latin OR</td>
<td>3</td>
</tr>
<tr>
<td>MIT 103</td>
<td>Medical Office Terminology OR</td>
<td>(3)</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology</td>
<td>(3)</td>
</tr>
<tr>
<td>HIT 100</td>
<td>Introduction to Healthcare Delivery Systems</td>
<td>3</td>
</tr>
<tr>
<td>HIT 105</td>
<td>Path/o/Pharm for Health Information Professionals</td>
<td>4</td>
</tr>
<tr>
<td>CTT 130</td>
<td>Productivity Software OR</td>
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<tr>
<td>OST 240</td>
<td>Software Integration</td>
<td>(3)</td>
</tr>
<tr>
<td>HIT 109</td>
<td>Clinical Classification Systems I</td>
<td>4</td>
</tr>
<tr>
<td>HIT 110</td>
<td>Legal/Ethical Issues in Health Information</td>
<td>2</td>
</tr>
<tr>
<td>HIT 112</td>
<td>Reimbursement Methodologies</td>
<td>3</td>
</tr>
<tr>
<td>HIT 200</td>
<td>Information Systems in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>HIT 202</td>
<td>Clinical Classification Systems II</td>
<td>3</td>
</tr>
<tr>
<td>HIT 205</td>
<td>Performance Improvement in Health Information</td>
<td>3</td>
</tr>
<tr>
<td>HIT 207</td>
<td>Clinical Classification Systems III</td>
<td>3</td>
</tr>
<tr>
<td>HST 211</td>
<td>Health Care Management &amp; Statistics</td>
<td>3</td>
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<tr>
<td>HIT 215</td>
<td>Clinical Practicum</td>
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</table>

**Subtotal** 41

**Total Credits** 63-67

NOTE: BIO 137 and BIO 139 are required at JCTC.

**Certificate**

**Medical Record Coding Specialist- 5107073019**
*(Offered at GTW, JFC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek or Latin OR</td>
<td>3</td>
</tr>
<tr>
<td>MIT 103</td>
<td>Medical Office Terminology OR</td>
<td>(3)</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology</td>
<td>(3)</td>
</tr>
</tbody>
</table>
Health Physics

The Health Physics program is designed to prepare students to conduct health physics activities in a variety of occupational and environmental settings. Students will study the basic properties of radiation including its origin, its interactions with matter, and radiation detection procedures. Rules and regulations governing human exposure to occupational radiation health hazards are covered. Emphasis is placed on the proper use of survey instrumentation to detect and measure occupational radiation hazards, the equipment and techniques employed to conduct workplace and environmental surveys, and the current technologies used in hazard control. The Radiation Control Technician certificate prepares students for employment in a Department of Energy (DOE) facility. The AAS degree in Health Physics prepares the graduate for the National Registry of Radiation Protection Technologists examination and for employment at a nuclear facility.

Associate in Applied Science

Health Physics - 5122057019

General Education Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY 152</td>
<td>Introduction to Physics OR higher level Physics course</td>
<td>3</td>
</tr>
<tr>
<td>CHE 140</td>
<td>Introductory General Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHE 145</td>
<td>Introductory General Chemistry Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>BIO 112</td>
<td>Introduction to Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIO 113</td>
<td>Introduction to Biology Lab</td>
<td>1</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra or higher level</td>
<td></td>
</tr>
<tr>
<td>Quantitative Reasoning course</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II</td>
<td>3</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
<td>3</td>
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</table>

Heritage/Humanities | 3 |

Subtotal | 29 |

Technical Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HPH 101</td>
<td>Health Physics I</td>
<td>3</td>
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<tr>
<td>HPH 102</td>
<td>Health Physics II</td>
<td>3</td>
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<tr>
<td>HPH 120</td>
<td>Radiation Biology</td>
<td>3</td>
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<tr>
<td>HPH 201</td>
<td>Nuclear Instrumentation and Measurement I</td>
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<td>HPH 202</td>
<td>Nuclear Instrumentation and Measurement II</td>
<td>4</td>
</tr>
<tr>
<td>HPH 246</td>
<td>Environmental Law</td>
<td>2</td>
</tr>
<tr>
<td>ISX 100</td>
<td>Industrial Safety</td>
<td>3</td>
</tr>
<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
</tr>
<tr>
<td>ITE 250</td>
<td>Team Dynamics and Problem Solving</td>
<td>3</td>
</tr>
<tr>
<td>BAS 287</td>
<td>Supervisory Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Subtotal | 31-34 |

Total Credits | 60-63 |

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

Certificate

Radiation Control Technician - 5122053039

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPH 100</td>
<td>Health Physics Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>HPH 101</td>
<td>Health Physics I</td>
<td>3</td>
</tr>
<tr>
<td>HPH 102</td>
<td>Health Physics II</td>
<td>3</td>
</tr>
<tr>
<td>HPH 201</td>
<td>Nuclear Instrumentation and Measurement I</td>
<td>4</td>
</tr>
<tr>
<td>HPH 202</td>
<td>Nuclear Instrumentation and Measurement II</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Credits | 17 |

Health Science Technology

The Health Science Technology (HST) program is designed to prepare students for entry-level career opportunities in the field of healthcare and health-related services. The program is designed for those students who seek entry level jobs as well as for the currently employed individual wishing to broaden skills for career enhancement. Graduates will possess marketable skills sets for direct services as well as the foundation needed to understand current health care delivery. Many of the general education and core courses are required for completion of varied professional health programs. Examples include diagnostic medical sonography, medical assisting, nursing, physical therapy assistant, radiography, respiratory care, and surgical technology. The HST provides a smooth transition or career pathway to an Allied Health or nursing selective admission program once a student is accepted.

A grade of “C” or better is required in each biological science and quantitative reasoning course.

Associate in Applied Science

Health Science Technology – 5100007019

General Education

<table>
<thead>
<tr>
<th>Course</th>
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<td>College Algebra and Functions OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Math</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II</td>
<td>3</td>
</tr>
<tr>
<td>BIO 135</td>
<td>Basic Human Anatomy OR</td>
<td>4</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I AND</td>
<td>4</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
<td>4</td>
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<tr>
<td>PSY 110</td>
<td>General Psychology</td>
<td>3</td>
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<tr>
<td>Heritage/Humanities</td>
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<td></td>
</tr>
<tr>
<td>Oral Communications</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Subtotal | 25-29 |
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.

**Healthcare Facilities Leadership**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BAS 212 Introduction to Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 287 Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 288 Principles and Organizational Leadership</td>
<td>3</td>
</tr>
<tr>
<td>BAS 299 Digital Literacy or Elective (if Digital Literacy is satisfied)</td>
<td>3</td>
</tr>
<tr>
<td>ECO 201 Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>HFL 110 Medical Ethics</td>
<td>3</td>
</tr>
<tr>
<td>HFL 120 Introduction to Healthcare Industry</td>
<td>3</td>
</tr>
<tr>
<td>HFL 130 Compliance, Codes, and Standards I</td>
<td>3</td>
</tr>
<tr>
<td>HFL 140 Maintenance and Operations I</td>
<td>3</td>
</tr>
<tr>
<td>HFL 150 Planning, Design, and Construction I</td>
<td>3</td>
</tr>
<tr>
<td>HFL 170 General College Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>HFL 175 General College Chemistry I Lab OR</td>
<td>1</td>
</tr>
<tr>
<td>HFL 190 Introduction to Energy Systems</td>
<td>3</td>
</tr>
<tr>
<td>HFL 230 Compliance, Codes, and Standards II</td>
<td>3</td>
</tr>
<tr>
<td>HFL 240 Maintenance and Operations II</td>
<td>3</td>
</tr>
<tr>
<td>HFL 250 Planning, Design, and Construction II</td>
<td>3</td>
</tr>
<tr>
<td>HFL 260 Healthcare Facilities Leadership Capstone I</td>
<td>3</td>
</tr>
<tr>
<td>HFL 270 Healthcare Facilities Leadership Capstone II</td>
<td>3</td>
</tr>
<tr>
<td>BAS 287 Supervisory Management OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 289 Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 299 Digital Literacy or Elective (if Digital Literacy is satisfied)</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>60-68</td>
</tr>
</tbody>
</table>

#Digital Literacy must be demonstrated by computer exam or successfully completing a digital literacy course.

**Health Science**Technical Course selection must result in final attainment of a minimum of three (3) certificate credentials.

Students may be able to earn certificates that are already present in other curricula, including but not limited to:

- Nursing Assistant
- Advanced Nursing Assistant
- Phlebotomy for the Healthcare Worker
- Pharmacy Technician I
- Medical Coding
- Medical Office Radiology

**Heavy Equipment Operation**

Designed to instruct students in the safe operation of heavy equipment, e.g., bulldozers, backhoes, front-end loaders, hydraulic excavators and graders. Instruction in digging, ditching, sloping, stripping, grading, back filling, clearing trees and rubble, and foundation excavating is provided as well as instruction in the proper care and maintenance of equipment.

**Diploma**

Operating Engineer - 4902024019
(Offered at HZC, SEC)

General Education:

<table>
<thead>
<tr>
<th>Area</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Written Communication, Oral Communications, or Heritage/Humanities</td>
</tr>
<tr>
<td>2</td>
<td>Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning*</td>
</tr>
</tbody>
</table>

*MAT 116 or higher level Quantitative Reasoning course required at SEC Technical Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISX 100 Industrial Safety</td>
<td>3</td>
</tr>
<tr>
<td>DIT 103 Preventive Maintenance Lab</td>
<td>2</td>
</tr>
<tr>
<td>HEO 151 Heavy Equipment Operating I</td>
<td>6</td>
</tr>
<tr>
<td>HEO 201 Heavy Equipment Operating II</td>
<td>6</td>
</tr>
<tr>
<td>HEO 251 Heavy Equipment Operating III</td>
<td>6</td>
</tr>
<tr>
<td>HEO 125 Special Problems I</td>
<td>3</td>
</tr>
<tr>
<td>HEO 225 Special Problems II</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Technical Credits 29-32

Total Credits 35-38

**Certificate**

Backhoe Operator - 4902023069
(Offered at HZC, SEC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEO 110</td>
<td>3</td>
</tr>
<tr>
<td>DIT 103 Preventive Maintenance Lab</td>
<td>2</td>
</tr>
<tr>
<td>HEO 125 Special Problems I</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits 12

Bulldozer Operator - 4902023029
(Offered at HZC, SEC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEO 111</td>
<td>3</td>
</tr>
<tr>
<td>DIT 103 Preventive Maintenance Lab</td>
<td>2</td>
</tr>
<tr>
<td>HEO 125 Special Problems I</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits 12

Front-End Loader Operator - 4902023079
(Offered at HZC, SEC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEO 107 Utility Tractor Loader Operator</td>
<td>3</td>
</tr>
<tr>
<td>DIT 103 Preventive Maintenance Lab</td>
<td>2</td>
</tr>
<tr>
<td>HEO 125 Special Problems I</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits 12
Historic Information Management

Archival Management
Trains individuals to arrange, preserve, and present archival materials for use, and instructs students in the basics of working in either public or private archives. The program will also provide students with a context for making decisions about the worthiness of material for archiving. The program is designed for students seeking entry into the field of archival management and those already working in the field.

Museum Management
Prepares students for entry level work in the museum field and provides technical training for persons working in museums. Among the topics addressed by the courses are: the basics of collection development and cataloging, exhibit design, work with the public, and the use of computer technology in the museum environment.

Records Management
Focuses on training for persons responsible for the efficient management of an organization’s recorded information. Students will learn to identify the content, value and importance of recorded information and through a comprehensive understanding of the “information life cycle” learn to organize, manage and deliver that recorded information in a timely and efficient manner.

Certificates

Archival Management - 5401053029
- ENG 101 Writing I ......................................................... 3
- HIM 102 Archives Studies: Characteristics & Overview ....... 3
- HIM 210 Archives Studies: Appraisal & accessioning .......... 3
- HIM 212 Archives Studies: Arrangement & Description ...... 3
- HIM 214 Archives Studies: Preservation & Conservation ....... 3
- HIM 216 Archives Studies: Automation & Electronic Records ... 3
- Total 24

Museum Management - 5401053019
- ENG 101 Writing I ......................................................... 3
- HIM 104 Museum Studies: Characteristics & Overview ....... 3
- HIM 230 Museum Studies: Collections Care & Management ... 3
- HIM 232 Museum Studies: Conservation and preservation ....... 3
- Total 24

Records Management - 5401053039
- ENG 101 Writing I ......................................................... 3
- HIM 106 Records Management: Characteristics & Overview ... 3
- HIM 250 Records Inventory & Analysis ............................ 3
- HIM 252 Electronic Records Management ....................... 3
- HIM 254 Records Reproduction & Imaging Systems ............ 3
- Total 24

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
- 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
- Total 25
- *Technical Electives: Select a minimum of 8 credit hours
- HPT 120 Traditional Woodworking .................................. 2
- HPT 200 Masonry Repointing and Repair ......................... 2
- HPT 202 Window Restoration and Repair ......................... 2
- HPT 204 Roof Restoration and Repair .............................. 2
- HPT 298 Field Experience Practicum ............................... 2

Homeland Security/ Emergency Management
The degree program includes an overview of homeland security, emergency management and first responder agencies, including but not limited to: Fire Departments, Law Enforcement, and Medical Services and how these agencies function within the National Incident Management System.

Fire Science Track:
This degree track includes fire department organization, fire behavior, firefighter safety, personal protective equipment, portable fire extinguishers, fire hose, appliance and streams.

Criminal Justice Track:
This criminal justice degree track prepares the student for entry into the field of police work and related occupations. Criminal justice vocations
have evolved from jobs with minimal requirements to jobs requiring complex knowledge and skills. This curriculum gives the student theory, principles, and techniques employed by criminal justice agencies and police units. The study of the law as it relates to criminal justice agencies, human behavior, government, and communications along with specialized course work comprise the curriculum.

Security Management Track:
The Security Management Coordinator degree track provides a comprehensive overview of physical security policies, procedures and techniques. Topics covered are perimeter protection, intrusion detection, access control, CCTV, security design and surveys, contingency planning, and acts of violence.

Homeland Security/Emergency Management Specialist Certificate:
This certificate program includes an overview of homeland security, emergency management and first responder agencies, including but not limited to: fire departments, law enforcement and emergency medical services and how these agencies function within the National Incident Management System.

Progression in the program is contingent upon achievement of a grade of “C” or better in each technical course for all program tracks above

### Associate in Applied Science

#### Homeland Security/Emergency Management - 4399997019

(Offered at BLC, WKC)

<table>
<thead>
<tr>
<th>General Education Core</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Written Communication</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>3</td>
</tr>
<tr>
<td>Heritage/Humanities</td>
<td>3</td>
</tr>
<tr>
<td>Oral Communications</td>
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</tr>
<tr>
<td><strong>General Education Core Credit Hour Subtotal</strong></td>
<td>18</td>
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</table>

<table>
<thead>
<tr>
<th>Technical Core or Support Courses</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Computer/Digital Literacy</td>
<td>0-3</td>
</tr>
<tr>
<td>HSM 100 Introduction to Homeland Security</td>
<td>3</td>
</tr>
<tr>
<td>HSM 110 Introduction to Emergency Management</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 110 Principles of Asset Protection AND</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 210 Physical Security Technology &amp; Systems OR</td>
<td>3</td>
</tr>
<tr>
<td>LSI 120 Comprehensive Security Specialist AND</td>
<td>(4)</td>
</tr>
<tr>
<td>LSI 146 Crisis Management/Contingency Planning</td>
<td>(2)</td>
</tr>
<tr>
<td>HSM 225 Issues and Ethics in Homeland Security</td>
<td>3</td>
</tr>
<tr>
<td>AHS 140 Introduction to Public and Community Health</td>
<td>3</td>
</tr>
<tr>
<td>BAS 212 Introduction to Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>FRS 101 Introduction to Fire Science</td>
<td>3</td>
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<tr>
<td>FRS 2061 Emergency Medical Technician</td>
<td>6</td>
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<tr>
<td><strong>Technical Core Subtotal</strong></td>
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#### Fire Science Track - 439999701

(Offered at BLC, WKC)

<table>
<thead>
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<th>Fire Science Track</th>
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<tbody>
<tr>
<td>FRS 102 Firefighter Basic Skills I</td>
<td>3</td>
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<tr>
<td>FRS 103 Firefighters Basic Skills II</td>
<td>3</td>
</tr>
<tr>
<td>FRS 104 Firefighter Intermediate Skills I</td>
<td>3</td>
</tr>
<tr>
<td>FRS 105 Firefighters Intermediate Skills II</td>
<td>3</td>
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<tr>
<td>FRS 201 Firefighters Advanced Skills I</td>
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<tr>
<td><strong>Fire Science Track Subtotal</strong></td>
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<tr>
<td><strong>Fire Science Track Total Degree Requirements</strong></td>
<td>63-66</td>
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</tbody>
</table>

#### Criminal Justice Track - 439999702

(Offered at BLC, WKC)

<table>
<thead>
<tr>
<th>Criminal Justice Track</th>
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<tbody>
<tr>
<td>CRJ 100 Introduction to Criminal Justice</td>
<td>3</td>
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<tr>
<td>CRJ 204 Criminal Investigations</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 215 Introduction to Law Enforcement</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 217 Criminal Procedures</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 279 Terrorism and Political Violence</td>
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<tr>
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<tr>
<td><strong>Criminal Justice Track Total Degree Requirements</strong></td>
<td>63-66</td>
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</tbody>
</table>

#### Security Management Track - 439999703

(Offered at BLC, WKC)

<table>
<thead>
<tr>
<th>Security Management Track</th>
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<tbody>
<tr>
<td>LSI 140 Managing Terrorism &amp; Other Crises</td>
<td>1</td>
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<tr>
<td>LSI 150 Professional Locksmithing</td>
<td>4</td>
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<tr>
<td>Electives</td>
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<tr>
<td><strong>A minimum of 3 credit hours must be taken from this list of electives:</strong></td>
<td></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>
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<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>
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<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 195 Tactical Lock (restricted enrollment)</td>
<td>8</td>
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<tr>
<td><strong>Security Management Track Subtotal</strong></td>
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</tr>
<tr>
<td><strong>Security Management Track Total Degree Requirements</strong></td>
<td>63-66</td>
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</tbody>
</table>

#### Certificate

#### Homeland Security/Emergency Management Specialist - 4399993019

(Offered at JFC, WKC)

<table>
<thead>
<tr>
<th>Certificate</th>
<th></th>
</tr>
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<tbody>
<tr>
<td>HSM 100 Introduction to Homeland Security</td>
<td>3</td>
</tr>
<tr>
<td>HSM 110 Introduction to Emergency Management</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 110 Principles of Asset Protection OR</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 210 Physical Security Technology &amp; Systems OR</td>
<td>3</td>
</tr>
<tr>
<td>LSI 120 Comprehensive Security Specialist - (4)</td>
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<tr>
<td>LSI 146 Crisis Management/Contingency Planning - (2)</td>
<td></td>
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<tr>
<td>LSI 225 Issues and Ethics in Homeland Security</td>
<td>3</td>
</tr>
<tr>
<td>AHS 140 Introduction to Public and Community Health</td>
<td>3</td>
</tr>
<tr>
<td>BAS 212 Introduction to Financial Management</td>
<td>3</td>
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<tr>
<td>FRS 101 Introduction to Fire Science</td>
<td>3</td>
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<tr>
<td>FRS 2061 Emergency Medical Technician</td>
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</tr>
<tr>
<td><strong>HSEM Specialist Certificate</strong></td>
<td>30</td>
</tr>
</tbody>
</table>

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### Horticulture

The Horticulture program provides students with knowledge and skills needed for careers in greenhouse, nursery, and landscape operations. Students acquire practical experience in turf and landscape maintenance, design, plant production, and business management.

#### Associate in Applied Science

**Horticulture - 0106017019**

(Offered at JFC, OWC)

<table>
<thead>
<tr>
<th>General Education</th>
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</thead>
<tbody>
<tr>
<td>Quantitative Reasoning</td>
<td>3</td>
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<tr>
<td>Natural Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Heritage/Humanities</td>
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</table>
Social/Behavioral Sciences ........................................ 3  
Written Communication ............................................. 3  
Subtotal ................................................................. 15  

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<tr>
<th>Technical Core:</th>
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<tbody>
<tr>
<td>HRT 110 Nursery Management ................................</td>
<td>4</td>
</tr>
<tr>
<td>HRT 120 Turf Management OR ................................</td>
<td>4</td>
</tr>
<tr>
<td>HRT 160 Retail Floral Design AND .........................</td>
<td>(4)</td>
</tr>
<tr>
<td>HRT 161 Retail Floral Design Lab ..........................</td>
<td>(2)</td>
</tr>
<tr>
<td>HRT 130 Landscape Maintenance .............................</td>
<td></td>
</tr>
<tr>
<td>HRT 131 Landscape Maintenance Lab ..........................</td>
<td>2</td>
</tr>
<tr>
<td>HRT 150 Horticulture Business Management ..................</td>
<td></td>
</tr>
<tr>
<td>HRT 210 Landscape Design .....................................</td>
<td>4</td>
</tr>
<tr>
<td>HRT 240 Greenhouse Management ................................</td>
<td></td>
</tr>
<tr>
<td>HRT 241 Greenhouse Management Lab ..........................</td>
<td>2</td>
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<tr>
<td>Subtotal ..........................................................</td>
<td>26-31</td>
</tr>
</tbody>
</table>

* Must meet computer/digital literacy requirement.

**Science Track - 010601701**  
*(Offered at JFC, OWC)*

<table>
<thead>
<tr>
<th>General Education Natural Sciences Course ................</th>
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</thead>
<tbody>
<tr>
<td>COE 199 Cooperative Education OR ...........................</td>
<td>3</td>
</tr>
<tr>
<td>COED 198 Practicum ...........................................</td>
<td>(3)</td>
</tr>
<tr>
<td>HRT 104 Introduction to Herbaceous Plants ..................</td>
<td>4</td>
</tr>
<tr>
<td>HRT 108 Introduction to Woody Plants .......................</td>
<td>4</td>
</tr>
<tr>
<td>Electives (Horticulture Course List including COE198) ....</td>
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<td>Subtotal ..........................................................</td>
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</table>

**Business Track - 010601702**  
*(Offered at JFC, OWC)*

<table>
<thead>
<tr>
<th>Cooperative Education OR .....................................</th>
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</tr>
</thead>
<tbody>
<tr>
<td>COED 198 Practicum ...........................................</td>
<td>(2)</td>
</tr>
<tr>
<td>ACT 101 Fundamentals of Accounting I ........................</td>
<td>3</td>
</tr>
<tr>
<td>BAS 200 Small Business Management ...........................</td>
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<tr>
<td>BMO 170 Introduction to Business Management ................</td>
<td>3</td>
</tr>
<tr>
<td>OST 215 Office Procedures ....................................</td>
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</tr>
<tr>
<td>BAS 267 Introduction to Business Law ........................</td>
<td></td>
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<tr>
<td>Electives (Horticulture Course List including COE198) ....</td>
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<tr>
<td>Subtotal ..........................................................</td>
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</tr>
</tbody>
</table>

**Diploma**

**Landscape Technology - 0106014009**  
*(Offered at BSC, JFC, OWC)*

**General Education:**

<table>
<thead>
<tr>
<th>Area 1= Written Communication, Oral Communications, or Heritage/Humanities</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Area 2= Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning</td>
<td>3</td>
</tr>
<tr>
<td>Subtotal .......... ........................................................................</td>
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</table>

**Technical:**

<table>
<thead>
<tr>
<th>Cooperative Education OR .....................................</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>COED 198 Practicum ...........................................</td>
<td>(6)</td>
</tr>
<tr>
<td>HRT 104 Introduction to Herbaceous Plants ..................</td>
<td>4</td>
</tr>
<tr>
<td>HRT 108 Introduction to Woody Plants .......................</td>
<td>4</td>
</tr>
<tr>
<td>HRT 120 Turf Management OR ...................................</td>
<td>4</td>
</tr>
<tr>
<td>HRT 160 Retail Floral Design AND ................................</td>
<td>(4)</td>
</tr>
<tr>
<td>HRT 161 Retail Floral Design Lab ................................</td>
<td>(2)</td>
</tr>
<tr>
<td>HRT 130 Landscape Maintenance ..................................</td>
<td>3</td>
</tr>
<tr>
<td>HRT 131 Landscape Maintenance Lab ................................</td>
<td>2</td>
</tr>
<tr>
<td>HRT 210 Landscape Design ......................................</td>
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<tr>
<td>Subtotal .................................................................</td>
<td>30-32</td>
</tr>
</tbody>
</table>

**Total Credits 15-18**

* If computer/digital literacy is met by the competency exam, an additional 3 credit hours of general education or program elective must be taken.

**Ornamental Horticulture - 0106014029**  
*(Offered at BSC, JFC, OWC)*

**General Education:**

<table>
<thead>
<tr>
<th>Area 1= Written Communication, Oral Communications, or Heritage/Humanities</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Area 2= Social/Behavioral Sciences, Natural Sciences or Quantitative Reasoning</td>
<td>3</td>
</tr>
<tr>
<td>Subtotal .......... ........................................................................</td>
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</tbody>
</table>

* If computer/digital literacy is met by the competency exam, an additional 3 credit hours of general education or program elective must be taken.

**Technical:**

<table>
<thead>
<tr>
<th>Cooperative Education OR .....................................</th>
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</thead>
<tbody>
<tr>
<td>COE 199 Cooperative Education OR ...........................</td>
<td>3</td>
</tr>
<tr>
<td>COED 198 Practicum ...........................................</td>
<td>(3)</td>
</tr>
<tr>
<td>HRT 104 Introduction to Herbaceous Plants ..................</td>
<td>4</td>
</tr>
<tr>
<td>HRT 108 Introduction to Woody Plants .......................</td>
<td>4</td>
</tr>
<tr>
<td>HRT 110 Nursery Management ....................................</td>
<td>4</td>
</tr>
<tr>
<td>HRT 120 Turf Management OR ...................................</td>
<td>4</td>
</tr>
<tr>
<td>HRT 160 Retail Floral Design AND ................................</td>
<td>(4)</td>
</tr>
<tr>
<td>HRT 161 Retail Floral Design Lab ................................</td>
<td>(2)</td>
</tr>
<tr>
<td>HRT 130 Landscape Maintenance ..................................</td>
<td>3</td>
</tr>
<tr>
<td>HRT 150 Horticulture Business Management ....................</td>
<td>3</td>
</tr>
<tr>
<td>HRT 210 Landscape Design ......................................</td>
<td>4</td>
</tr>
<tr>
<td>HRT 240 Greenhouse Management ..................................</td>
<td>4</td>
</tr>
<tr>
<td>HRT 241 Greenhouse Management Lab ................................</td>
<td>2</td>
</tr>
<tr>
<td>COED 198 Practicum ...........................................</td>
<td>8</td>
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<td>Subtotal .................................................................</td>
<td>48-50</td>
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</table>

**Total** ............................................................................| 54-56   |

**Certificates**

**Greenhouse Operations - 0106013029**  
*(Offered at BSC, JFC, OWC)*

<table>
<thead>
<tr>
<th>Cooperative Education OR .....................................</th>
<th>4</th>
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</thead>
<tbody>
<tr>
<td>HRT 104 Introduction to Herbaceous Plants ..................</td>
<td>4</td>
</tr>
<tr>
<td>HRT 240 Greenhouse Management ..................................</td>
<td>2</td>
</tr>
<tr>
<td>HRT 241 Electives (Horticulture Course List) ................</td>
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**Greenhouse Production – 010613019**  
*(Offered at OWC)*

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>HRT 104 Introduction to Woody Plants .......................</td>
<td>4</td>
</tr>
<tr>
<td>HRT 240 Greenhouse Management ..................................</td>
<td>2</td>
</tr>
<tr>
<td>HRT 241 Electives (Horticulture Course List) ................</td>
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**Horticulture Sales - 0106013119**  
*(Offered at BSC, JFC, OWC)*

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>HRT 104 Introduction to Herbaceous Plants ..................</td>
<td>4</td>
</tr>
<tr>
<td>HRT 108 Introduction to Woody Plants .......................</td>
<td>4</td>
</tr>
<tr>
<td>HRT 120 Turf Management OR ...................................</td>
<td>4</td>
</tr>
<tr>
<td>HRT 160 Retail Floral Design AND ................................</td>
<td>(4)</td>
</tr>
<tr>
<td>HRT 161 Retail Floral Design Lab ................................</td>
<td>(2)</td>
</tr>
<tr>
<td>HRT 130 Landscape Maintenance ..................................</td>
<td>3</td>
</tr>
<tr>
<td>HRT 150 Horticulture Business Management ....................</td>
<td>3</td>
</tr>
<tr>
<td>HRT 210 Electives (Horticulture Course List) ................</td>
<td>1-2</td>
</tr>
<tr>
<td>Total Credits .........................................................</td>
<td>15-18</td>
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</tbody>
</table>
Landscape Installation - 0106013049
(Offered at BSC, JFC, MYC, OWC)
HRT 108 Introduction to Woody Plants ............................ 4
HRT 104 Introduction to Herbaceous Plants ......................... (4)
HRT 130 Landscape Maintenance ...................................... 3
HRT 131 Landscape Maintenance Lab .................................. 2
Electives (Horticulture Course List) ............................... 3
Total Credits 12

Landscape Planning - 0106013059
(Offered at BSC, JFC, MYC, OWC)
HRT 104 Introduction to Herbaceous Plants ......................... 4
HRT 108 Introduction to Woody Plants ............................... 4
HRT 130 Landscape Maintenance ...................................... 3
HRT 131 Landscape Maintenance Lab .................................. 2
HRT 210 Landscape Design ............................................ 4
Electives (Horticulture Course List) ............................... 5
Total Credits 22

Lawn Maintenance - 0106013069
(Offered at BSC, JFC, MYC, OWC)
HRT 120 Turf Management ............................................ 4
HRT 130 Landscape Maintenance ...................................... 3
HRT 131 Landscape Maintenance Lab .................................. 2
Total Credits 10

Nursery Production - 0106013079
(Offered at BSC, JFC, MYC, OWC)
HRT 108 Introduction to Woody Plants ............................... 4
HRT 110 Nursery Management ........................................ 4
HRT 240 Greenhouse Management .................................... 4
Electives (Horticulture Course List including COE198) ......... 8
Total Credits 20

Nursery Operations - 0106013089
(Offered at BSC, JFC, MYC, OWC)
HRT 108 Introduction to Woody Plants ............................... 4
HRT 110 Nursery Management ........................................ 4
Electives (Horticulture Course List including COE198) ......... 5
Total Credits 13

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 must obtain a "C" or better in all core classes (HMS 101, HMS 102, HMS 103, HMS 104 and HMS 250) and also in the two technical courses that have been selected to complete the core requirements.

Associate in Applied Science
Human Services- 4400007000
(Offered at BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, OWC)

General Education:
COM 181 Basic Public Speaking............................................... 3
COM 252 Introduction to Interpersonal Communications ............. (3)
ENG 101 Writing I ................................................................. 3
ENG 102 Writing II ................................................................. 3
PSY 110 General Psychology .................................................. 3
PSY 223 Developmental Psychology ...................................... 3
SOC 101 Introduction to Sociology .......................................... 3
SOC 222 Cultural Diversity in Human Services ......................... 3
Total 30

Technical Core:
CIT 105 Introduction to Computers OR ..................................... 3
Approved Digital Literacy Course .......................................... (3)
HMS 101 Human Services Survey ............................................ 3
HMS 102 Values of Human Services in a Contemporary Society .... 3
HMS 103 Theories and Techniques in Human Services ............... 3
HMS 104 Group Dynamics for Human Services ......................... 3
HMS 250 Clinical Practice in Human Services OR ..................... 4
COE 199 Cooperative Education .............................................. (4)
Technical courses ......................................................... 6
Electives ................................................................. 9
Subtotal 34

Total Credits 64

Technical Courses: Choose six hours 6
CRJ 101 Introduction to Criminal Justice .................................. 3
CRJ 208 Delinquency and the Juvenile Justice System .................. 3
EDP 203 Teaching Exceptional Learners in Regular Classrooms .... 3
FAM 252 Introduction to Family Science .................................. 3
FAM 253 Human Sexuality: Development, Behavior and Attitudes 3
HMS 210 Drugs, Society, and Human Behavior .......................... 3
HMS/SWK 221 Introduction to Addictions .................................. 3
HMS/SWK 222 Crisis Intervention ............................................ 3
HMS/SWK 235 Cultural Diversity in Human Services ................. 3
HMS/SWK 235 Teaching Persons with Mental Retardation .......... 3
HMS 245 Psychiatric Mental Health Technician .......................... 3
HMS 265 Working with Disabilities in Human Services ............... 3
HMS 299 Special Topics in Human Services ............................. 1-3
IEC 130 Early Childhood Development .................................. 3
IEC 200 Child Guidance ....................................................... 3
MNA 100 Medicaid Nurse Aide OR ........................................ 3
NAA 100 Nursing Assistant Skills I ......................................... (3)
PSY 180 Human Relations ...................................................... 3
PSY 185 Human Potential ....................................................... 3
PSY 230 Psychosocial Aspects of Death and Dying ..................... 3
SED 110 Orientation to Interpreting for the Deaf ....................... 3
SED 101 American Sign Language I ......................................... 3
SED 102 American Sign Language II ....................................... 3
SOC 124 The Community ....................................................... 3
SWK 124 Introduction to Social Services .................................. 3
SWK 222 Development of Social Welfare .................................. 3
SWK 180 Introduction to Gerontology ..................................... 3
SWK 269 Juvenile Delinquency ............................................... 3
SWK 270 Corrections ............................................................ 3
SWK 275 The Family ............................................................ 3
SWK 276 Criminology .......................................................... 3
SWK 280 Methods of Working with the Aged ............................. 3
SWK 281 Psychology of Aging ............................................... 3

Total Credits 20
## Murray State University Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWK 120</td>
<td>Group Preparation and Selection for Foster and Adoptive Parents</td>
<td>2</td>
</tr>
<tr>
<td>SWK 121</td>
<td>Child Sexual Abuse for Foster and Adoptive Parents</td>
<td>2</td>
</tr>
</tbody>
</table>

## Eastern Kentucky University Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>COR 106</td>
<td>Foundations of Youth Work</td>
<td>3</td>
</tr>
<tr>
<td>COR 423*</td>
<td>Reclaiming Our Prodigal Sons and Daughters</td>
<td>3</td>
</tr>
<tr>
<td>COR 423*</td>
<td>Life Space Crisis Intervention</td>
<td>3</td>
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</table>

* Special Topics course at EKU; different section numbers indicate different topic content

## Eastern Kentucky University Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>SWK 106</td>
<td>Food Benefits</td>
<td>3</td>
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</table>

## Certificates

### Direct Support Work - 4400003039

(Offered at BLC, BSC, ELC, GTW, HPC, HZC, JFC, OWC, MDC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMS 102</td>
<td>Values of Human Services in a Contemporary Society</td>
<td>3</td>
</tr>
<tr>
<td>HMS 265</td>
<td>Working with Disabilities in Human Services</td>
<td>3</td>
</tr>
<tr>
<td>MNA 100</td>
<td>Medicaid Nurse Aide OR</td>
<td>3</td>
</tr>
<tr>
<td>NAA 100</td>
<td>Nursing Assistant Skills I</td>
<td>3</td>
</tr>
<tr>
<td>SWK 275</td>
<td>The Family OR</td>
<td>3</td>
</tr>
<tr>
<td>FAM 252</td>
<td>Introduction of Family Science</td>
<td>3</td>
</tr>
</tbody>
</table>

### Electives – choose one course from the following list:

- HMS/SWK235/250 Teaching Persons with Mental Retardation (3)
- SWK 180 Introduction to Gerontology (3)
- PSY 230 Psychosocial Aspects of Death and Dying (3)
- HMS/SWK200 Dynamics of Human Behavior (3)

Total Credits 15

### Aging Services – 4400003049

(Offered at BSC, ELC, GTW, HPC, HZC, MDC, OWC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMS 102</td>
<td>Values of Human Services in a Contemporary Society</td>
<td>3</td>
</tr>
<tr>
<td>HMS 265</td>
<td>Working with Disabilities in Human Services</td>
<td>3</td>
</tr>
<tr>
<td>MNA 100</td>
<td>Medicaid Nurse Aide OR</td>
<td>3</td>
</tr>
<tr>
<td>NAA 100</td>
<td>Nursing Assistant Skills I</td>
<td>3</td>
</tr>
<tr>
<td>SWK 275</td>
<td>The Family OR</td>
<td>3</td>
</tr>
<tr>
<td>FAM 252</td>
<td>Introduction of Family Science</td>
<td>3</td>
</tr>
<tr>
<td>SWK 180</td>
<td>Introduction to Gerontology</td>
<td>3</td>
</tr>
<tr>
<td>SWK 281</td>
<td>Psychology of Aging</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits 18

### Substance Abuse Recovery Coach – 4400003059

(Offered at BSC, ELC, GTW, HPC, HZC, MDC, OWC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMS 101</td>
<td>Human Services Survey</td>
<td>3</td>
</tr>
<tr>
<td>HMS 102</td>
<td>Values of Human Services in a Contemporary Society</td>
<td>3</td>
</tr>
<tr>
<td>HMS 103</td>
<td>Theories and Techniques in Human Services</td>
<td>3</td>
</tr>
<tr>
<td>HMS 104</td>
<td>Group Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>HMS 210</td>
<td>Drugs, Society and Human Behavior</td>
<td>3</td>
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<tr>
<td>HMS/SWK211/255</td>
<td>Introduction to Addictions</td>
<td>3</td>
</tr>
<tr>
<td>HMS/SWK212/260</td>
<td>Crisis Intervention</td>
<td>3</td>
</tr>
<tr>
<td>SWK 275</td>
<td>The Family OR</td>
<td>3</td>
</tr>
<tr>
<td>FAM 252</td>
<td>Introduction of Family Science</td>
<td>3</td>
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</table>

Total Credits 24

### Psychiatric Mental Health Technician – 4400003069

(Offered at GTW)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HMS 101</td>
<td>Human Services Survey</td>
<td>3</td>
</tr>
<tr>
<td>HMS 102</td>
<td>Values of Human Services in a Contemporary Society</td>
<td>3</td>
</tr>
<tr>
<td>HMS 103</td>
<td>Theories and Techniques in Human Services</td>
<td>3</td>
</tr>
<tr>
<td>HMS 104</td>
<td>Group Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>HMS 210</td>
<td>Drugs, Society and Human Behavior</td>
<td>3</td>
</tr>
<tr>
<td>SWK 275</td>
<td>The Family</td>
<td>3</td>
</tr>
<tr>
<td>HMS 245</td>
<td>Psychiatric Mental Health Technician</td>
<td>3</td>
</tr>
<tr>
<td>SWK 276</td>
<td>Criminology</td>
<td>3</td>
</tr>
<tr>
<td>SWK 281</td>
<td>Psychology of Aging</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits 27

### Technical Electives:

- HMS/SWK211/255 Introduction to Addictions (3)
- HMS/SWK212/260 Crisis Intervention (3)
- HMS/SWK200 Dynamics of Human Behavior (3)
- HMS/SWK220 Cultural Diversity in Human Services (3)
- HMS 265 Working with Disabilities in Human Services (3)
- SWK 180 Introduction to Gerontology (3)
- SWK 276 Criminology (3)
- SWK 281 Psychology of Aging (3)

### Total Credits 27

## Industrial Chemical Technology

This program is designed based on North American Process Technician Alliance (NAPTA) principles for process technicians. Basic knowledge in the areas of environmental health and safety, quality control, chemistry, process equipment, process operations, troubleshooting, and workplace skills helps ensure graduates enter the workforce with the fundamentals in operations of a modern chemical facility.

### Associate in Applied Science

**Industrial Chemical Technology - 4103017019**

(Offered at JFC, WKC)

### General Education

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENG 101</td>
<td>Writing</td>
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<tr>
<td>CHE 140</td>
<td>Introductory General Chemistry Lab</td>
<td>3</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>CHE 145</td>
<td>Introductory General Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
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<tr>
<td>PHY 171</td>
<td>Applied Physics OR</td>
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<tr>
<td>PHY 152</td>
<td>Introductory Physics II AND</td>
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<td>PHY 162</td>
<td>Introductory Physics II Lab</td>
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<td>ELT 295</td>
<td>Independent Problems OR</td>
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<tr>
<td>COE 199</td>
<td>Co-operative Education</td>
<td>1-4</td>
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</table>

Total 61-67

### Information Management and Design

The Information Management & Design program prepares students for careers in various industries utilizing cutting-edge technology within video game design, graphic design, web design, and library professions. Students will specialize their degree from a choice of four tracks.

The Graphic Design track provides the concepts and skills needed to create and produce design projects such as brochures, flyers, newsletters,
logos, product packaging, photo restorations and manipulations, multimedia presentations, simple illustrations, and web sites using industry-standard techniques and graphic design applications.

The Web Design track provides the concepts and skills needed to create and produce web sites using industry-standard techniques using graphic and web design, and video editing applications. The Web Design track graduates will have the ability to create and maintain professional sites and also be capable of working with other web professionals such as programmers, network administrators and database administrators as well as interfacing with management and clients.

The Library and Information Technology track prepares graduates for paraprofessional library work.

The IMD Video Game Design track prepares students to design, develop, and market digital games and simulations. This track focuses on artistic and multimedia game design and development.

The courses within the Graphic and Web Design options will assist with preparation for Adobe Certifications and the Certified Internet Webmaster (CIW) certification exam. The Library and Information Technology option courses may be used to meet Kentucky public library certification requirements.

The IMD program also offers two certificates within the web and graphic design options. The web and graphic design certificate provide up-to-date training in current industry-standard software and trends for practitioners in the fields as well as introductory education for beginning students. In addition, the IMD program offers a certificate in Digital Video for students interested in film editing and cinematic arts. Associate in Applied Science:

**Information Management and Design - 1108017019**

*(Offered at BLC)*

**General Education Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ENG 101</td>
<td>Writing *</td>
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<tr>
<td>ENG 102</td>
<td>Writing II *</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Quantitative Reasoning Course*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Natural Sciences Course*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Heritage/ Humanities Course*</td>
<td>3</td>
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<tr>
<td></td>
<td>Social/ Behavioral Sciences Course*</td>
<td>3</td>
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**Subtotal** 18

**Core Content:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>IMD 100</td>
<td>Digital Information and Communications Technologies</td>
<td>3</td>
</tr>
<tr>
<td>IMD 133</td>
<td>Beginning Web Design</td>
<td>3</td>
</tr>
<tr>
<td>IMD 126</td>
<td>Introduction to Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>IMD 210</td>
<td>Microsoft Office Applications</td>
<td>3</td>
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<tr>
<td>IMD 270</td>
<td>Professional Practices</td>
<td>3</td>
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<tr>
<td>IMD 275</td>
<td>Information Management &amp; Communications</td>
<td>3</td>
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<tr>
<td>COE 199</td>
<td>Internship</td>
<td>3</td>
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**Subtotal** 21

**(General Education & Core Content)** 39

*Satisfies General Education requirement for the AAS degree*

**Graphic Design Track - 110801702**

*(Offered at BLC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>IMD 115</td>
<td>Introduction to Graphic Design</td>
<td>3</td>
</tr>
<tr>
<td>IMD 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>
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<tr>
<td>IMD 226</td>
<td>Advanced Desktop Publishing</td>
<td>3</td>
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<tr>
<td>IMD 280</td>
<td>Portfolio Practicum: Graphic Design</td>
<td>3</td>
</tr>
<tr>
<td>IMD 277</td>
<td>Typography</td>
<td>3</td>
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<tr>
<td>IMD 229</td>
<td>Advanced Illustrator</td>
<td>3</td>
</tr>
<tr>
<td>IMD 228</td>
<td>Advanced Photoshop OR</td>
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**Choose from Graphic Design Track Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>IMD 230</td>
<td>Advanced Web Design</td>
<td>3</td>
</tr>
<tr>
<td>IMD 232</td>
<td>Web Design with Adobe Dreamweaver</td>
<td>3</td>
</tr>
<tr>
<td>IMD 240</td>
<td>Multimedia Development for the Web</td>
<td>3</td>
</tr>
<tr>
<td>IMD 250</td>
<td>Digital Video Editing I</td>
<td>3</td>
</tr>
<tr>
<td>IMD 290</td>
<td>Photography</td>
<td>3</td>
</tr>
<tr>
<td>IMD 228</td>
<td>Advanced Photoshop (if not taken as core requirement)</td>
<td>3</td>
</tr>
<tr>
<td>IMD 229</td>
<td>Advanced Illustrator (if not taken as core requirement)</td>
<td>3</td>
</tr>
<tr>
<td>IMD 294</td>
<td>Seminar in Information Management &amp; Design Technologies</td>
<td>3</td>
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<tr>
<td>IMD 299</td>
<td>Selected Topics in Information Management &amp; Design Technologies</td>
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<tr>
<td>MKT 282</td>
<td>Principles of Marketing</td>
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<tr>
<td>ENG 203</td>
<td>Business Writing</td>
<td>3</td>
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<tr>
<td></td>
<td>Other Information Management, Design, Architectural, Business, Communications, Fine Arts or other track appropriate courses approved by Program Coordinator</td>
<td>3</td>
</tr>
</tbody>
</table>

**Subtotal** 27

**Total** 66

**Library Information Technology Track - 110801704**

*(Offered at BLC)*

**Available Completely Online**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIT 115</td>
<td>Introduction to Reference Services</td>
<td>3</td>
</tr>
<tr>
<td>LIT 124</td>
<td>Library Administration</td>
<td>3</td>
</tr>
<tr>
<td>LIT 132</td>
<td>Library Technical Services</td>
<td>3</td>
</tr>
<tr>
<td>LIT 243</td>
<td>Library Services for Children **</td>
<td>3</td>
</tr>
<tr>
<td>LIT 245</td>
<td>Library Services for Young Adults **</td>
<td>3</td>
</tr>
<tr>
<td>LIT 247</td>
<td>Library Services for Adults **</td>
<td>3</td>
</tr>
<tr>
<td>LIT 285</td>
<td>History of Libraries</td>
<td>3</td>
</tr>
<tr>
<td>LIT 299</td>
<td>Selected Topics in Library Information Management (may be repeated for up to 6 hours)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Choose a Total of 12 hours from the following:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIT 130</td>
<td>Web Publishing for Public Libraries</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>LIT 285</td>
<td>History of Libraries</td>
<td>3</td>
</tr>
<tr>
<td>LIT 299</td>
<td>Selected Topics in Library Information Management</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total** 24

**Web Design Track- 110801703**

*(Offered at BLC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMD 180</td>
<td>Intermediate Web Design</td>
<td>3</td>
</tr>
<tr>
<td>IMD 230</td>
<td>Advanced Web Design</td>
<td>3</td>
</tr>
<tr>
<td>IMD 232</td>
<td>Web Design with Adobe Dreamweaver</td>
<td>3</td>
</tr>
<tr>
<td>IMD 240</td>
<td>Multimedia Development for the Web</td>
<td>3</td>
</tr>
<tr>
<td>IMD 250</td>
<td>Digital Video Editing I</td>
<td>3</td>
</tr>
<tr>
<td>IMD 292</td>
<td>Portfolio Practicum: Web Design</td>
<td>3</td>
</tr>
</tbody>
</table>

**Choose from Web Design Track Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>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 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 290</td>
<td>Photography</td>
<td>3</td>
</tr>
<tr>
<td>IMD 294</td>
<td>Seminar in Information Management &amp; Design Technologies</td>
<td>3</td>
</tr>
<tr>
<td>CKT 150</td>
<td>Internet Technologies</td>
<td>3</td>
</tr>
<tr>
<td>CKT 120</td>
<td>Computational Thinking</td>
<td>3</td>
</tr>
<tr>
<td>CKT 140</td>
<td>JavaScript I</td>
<td>3</td>
</tr>
</tbody>
</table>

**Computer Programming Course Approved by Program Coordinator**

**Subtotal** 1-3
Other Information Management & Design, Computer & Information Technologies, Architectural, Business, Communication, Fine Arts or other Track Appropriate Courses
Approved by Program Coordinator ........................... 1-3

Other Web or Graphic Design Courses
Approved by Program Coordinator ........................... 1-3

Subtotal ................................................................. 24

Total ................................................................. 63

Video Game Design Track – 110801705

(Offered at JFC)

IMD/CIT 124 Introduction to Game Development .................................. 3
IMD/CIT 272 Game Design Theory .................................................. 3
IMD/CIT 274 Seminar in Game Development ...................................... 3
IMD/CIT 221 Computer Graphics ..................................................... 3
IMD/CIT 222 3D Modeling for Video Games ...................................... 3
IMD/CIT 223 Computer Animation .................................................. 3
IMD/CIT 273 Game Production ........................................................ 3

Video Game Design Track Course ........................................... 3

Choose from Video Game Design Track Courses:

IMD 180 Intermediate Web Design with Photoshop ............................ 3
IMD 232 Web Design with Adobe Dreamweaver ............................... 3
IMD 240 Multimedia Development for the Web ............................... 3
IMD 290 Photography .................................................................. 3
IMD 128 Raster Design with Photoshop ........................................ 3
IMD 127 Vector Design with Illustrator ......................................... 3
IMD 228 Advanced Raster Design with Photoshop ............................ 3
IMD 294 Seminar in Information Management and Design ................ 3
IMD 299 Selected Topics in Information Management and Design .... 3
MKT 282 Principles of Marketing .................................................. 3
ENG 203 Business Writing ........................................................... 3

Other Video Game Design Courses approved by Program Coordinator .......................................................... 3

Other Information Management & Design, Computer & Information Technologies, Architectural, Business, Communication, Fine Arts or other Track Appropriate Courses
Approved by Program Coordinator ........................................... 1-3

Subtotal ................................................................. 24

Total ................................................................. 63

Certificate

Library Information Technology - 1108013019

(Offered at BLC)

The certificate in Library Information Technology prepares students for paraprofessional jobs in libraries and particularly in Kentucky public 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 for a selected group of library customers, describe the role of the public library in the community as an agency for information services, and perform readers advisory services and collection development analysis for a selected group of Kentucky authors or genres. Courses taken for the Certificate in Library Information Technology may be used also for the Associate of Applied Science degree in Information Management & Design, Library Information Technology option. All Library Information Technology courses are web-based distance courses. Required:

LIT 115 Introduction to Reference Services .................................... 3

Students will select one course from each of the following groups to complete the certificate of 18 credit hours:

1. Library Procedures

LIT 124 Library Administration .................................................. 3
LIT 132 Library Technical Services ............................................... (3)

2. Library Services

LIT 243 Library Services for Children .......................................... 3
LIT 245 Library Services for Young Adults .................................. 3
LIT 247 Library Services for Adults ............................................. (3)
LIT 248 Library Services for Preschool Children ......................... (3)
LIT 280 Genealogy Services in Libraries ..................................... (3)

3. Library Information Technology Elective

LIT elective: any LIT course above LIT 115 ................................. 3

4. Kentucky Literature (out-of-state students may substitute any English literature course)

LIT 200 Seminar in Kentucky Literature ..................................... 3
LIT 240 Literature of Appalachian Kentucky ................................. (3)
LIT 241 Literature of Central Kentucky ....................................... (3)
LIT 242 Literature of Western Kentucky ..................................... (3)

5. General Education

ENG 101 Writing I ................................................................. 3
ENG 102 Writing II ............................................................... 3
HIS 108 History of the United States through 1865 ......................... (3)
HIS 109 History of the United States since 1865 ........................... (3)
HIS 240 History of Kentucky .................................................... 3

Total ................................................................. 18

Graphic Design – 1108013029

(Offered at BLC)

IMD 115 Introduction to Graphic Design ...................................... 3
IMD 133 Beginning Web Design .................................................. 3
IMD 126 Introduction to Desktop Publishing .................................. 3
IMD 127 Vector Design with Adobe Illustrator .............................. 3
IMD 128 Raster Design with Adobe Photoshop .............................. 3
IMD 226 Advanced Desktop Publishing ....................................... 3

Total ................................................................. 18

Web Design – 1108013039

(Offered at BLC)

IMD 133 Beginning Web Design .................................................. 3
IMD 180 Intermediate Web Design ............................................. 3
IMD 232 Web Design with Adobe Dreamweaver ......................... 3
IMD 240 Multimedia Development for the Web ......................... 3
IMD 250 Digital Video Editing I .................................................. 3

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

Digital Video – 1108013049

(Offered at BLC)

IMD 128 Raster Design with Adobe Photoshop ............................ 3
IMD 250 Digital Video Editing I .................................................. 3
IMD 255 Digital Video Editing II .................................................. 3
IMD 258 Visual Effects for Video ................................................ 3

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

Insurance Risk Management

The Certificate program in Insurance and Risk Management is a four-course (12 credit hour) credential. Students will learn the foundations of insurance production and multiple lines insurance production. Students will also master the fundamentals of operating an agency and managing sales. Completers of this certificate program will be eligible to sit for the national Accredited Advisor in Insurance (AAI) Certification exam.

Certificate

Insurance and Risk Management – 5217013019

(Offered at JFC)

INS 100 Introduction to Insurance and Risk Management .............. 3
INS 181 Foundations of Insurance Production ............................ 3

Academic Curricula

171
Integrated Engineering Technology

The Integrated Engineering Technology Program offers students the opportunity to build a career maintaining integrated manufacturing systems found in advanced manufacturing, with an emphasis on automotive manufacturing. The program leads students through a mechatronics approach to maintaining and troubleshooting highly-automated, complex manufacturing systems that include programmable logic controllers, robots, various types of drives, sensors, photoeyes, and electrohydraulics and electropneumatics. Graduates will be able to work as maintenance technicians in most manufacturing settings, particularly manufacturing settings related to the automotive industry.

Certificate

Electrical Engineering Technology – 1442013029
(Offered at BLC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 107</td>
<td>3</td>
</tr>
<tr>
<td>IET 203</td>
<td>3</td>
</tr>
<tr>
<td>IET 205</td>
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</tr>
<tr>
<td>IET 206</td>
<td>5</td>
</tr>
<tr>
<td>COE 199</td>
<td>1</td>
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</tbody>
</table>

Total Credits 17

Interactive Design

The Interactive Design Technology program prepares students for present and future employment in expanding fields of interactive advertising/marketing and animation. Employers of these graduates include advertising agencies, marketing companies, in-house agencies, movie studios, production companies and game developers.

Certificate

3D Modeling Specialist – 0907023019
(Offered at GTW)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDT 100</td>
<td>3</td>
</tr>
<tr>
<td>IDT 110</td>
<td>3</td>
</tr>
<tr>
<td>IDT 120</td>
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<tr>
<td>IDT 210</td>
<td>3</td>
</tr>
<tr>
<td>IDT 170</td>
<td>3</td>
</tr>
<tr>
<td>IDT 250</td>
<td>3</td>
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</tbody>
</table>

Total Credits 20-23

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.

Technical Courses:

- Computer/Digital literacy
- Preventive Maintenance
- Blueprint Reading/Schematics
- Basic Electricity/Electronics
- Mechanical Drive Systems
- Safety
- Welding and Fabrication
- Machine Tool Operations
- Electrohydraulics/Pneumatics
- Programmable Logic Controllers
- Robot Maintenance
- Controls and Instrumentation
- Cooperative Education OR Practicum

Total Credits 53
Students must earn a “C” or higher in each of the IEC courses in order to graduate.

**Associate in Applied Science**

**Interdisciplinary Early Childhood Education - 1907097019**

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
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</tr>
<tr>
<td>ENG 102</td>
<td>Writing II</td>
<td>3</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
<td>3</td>
</tr>
<tr>
<td>PSY 110</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>IEC 101</td>
<td>Orientation to Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>IEC 102</td>
<td>Foundations of Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>IEC 120</td>
<td>Health, Safety &amp; Nutrition OR</td>
<td>3</td>
</tr>
<tr>
<td>KHP 230</td>
<td>Human Health &amp; Wellness OR</td>
<td>3</td>
</tr>
<tr>
<td>NFS 101</td>
<td>Human Nutrition and Wellness</td>
<td>3</td>
</tr>
<tr>
<td>IEC 130</td>
<td>Early Childhood Development</td>
<td>3</td>
</tr>
<tr>
<td>IEC 170</td>
<td>Observation &amp; Assessment OR</td>
<td>3</td>
</tr>
<tr>
<td>IEC 190</td>
<td>Applied Experiences in Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>IEC 180</td>
<td>Approaches to Early Childhood Education Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>IEC 200</td>
<td>Child Guidance</td>
<td>3</td>
</tr>
<tr>
<td>IEC 216</td>
<td>Literary and Language in IECE</td>
<td>3</td>
</tr>
<tr>
<td>IEC 221</td>
<td>Creative Expressions in IECE</td>
<td>3</td>
</tr>
<tr>
<td>IEC 246</td>
<td>Sciences and Mathematics for IECE</td>
<td>3</td>
</tr>
<tr>
<td>IEC 235</td>
<td>Introduction to Inclusive Education</td>
<td>3</td>
</tr>
<tr>
<td>IEC 260</td>
<td>Infant and Toddler Education and Programming</td>
<td>3</td>
</tr>
<tr>
<td>IEC 291</td>
<td>IECE Practicum/Cooperative Education</td>
<td>3</td>
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<tr>
<td><strong>Subtotal</strong></td>
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</table>

**Technical Core Courses**

- Computer/Digital literacy: 0-3

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<tr>
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<th>Title</th>
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<tbody>
<tr>
<td>IEC 101</td>
<td>Orientation to Early Childhood Education</td>
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</tr>
<tr>
<td>IEC 102</td>
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<td>IEC 120</td>
<td>Health, Safety &amp; Nutrition OR</td>
<td>3</td>
</tr>
<tr>
<td>KHP 230</td>
<td>Human Health &amp; Wellness OR</td>
<td>3</td>
</tr>
<tr>
<td>NFS 101</td>
<td>Human Nutrition and Wellness</td>
<td>3</td>
</tr>
<tr>
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</tr>
<tr>
<td>IEC 170</td>
<td>Observation &amp; Assessment OR</td>
<td>3</td>
</tr>
<tr>
<td>IEC 190</td>
<td>Applied Experiences in Early Childhood Education</td>
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<tr>
<td>IEC 180</td>
<td>Approaches to Early Childhood Education Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>IEC 200</td>
<td>Child Guidance</td>
<td>3</td>
</tr>
<tr>
<td>IEC 216</td>
<td>Literary and Language in IECE</td>
<td>3</td>
</tr>
<tr>
<td>IEC 221</td>
<td>Creative Expressions in IECE</td>
<td>3</td>
</tr>
<tr>
<td>IEC 246</td>
<td>Sciences and Mathematics for IECE</td>
<td>3</td>
</tr>
<tr>
<td>IEC 235</td>
<td>Introduction to Inclusive Education</td>
<td>3</td>
</tr>
<tr>
<td>IEC 260</td>
<td>Infant and Toddler Education and Programming</td>
<td>3</td>
</tr>
<tr>
<td>IEC 291</td>
<td>IECE Practicum/Cooperative Education</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td><strong>39-42</strong></td>
</tr>
</tbody>
</table>

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

**Choose one course from the following approved technical support elective courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IEC 210</td>
<td>Families &amp; Communities in Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>IEC 240</td>
<td>Administration of Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>IEC 250</td>
<td>School Age Child Care</td>
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</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td><strong>3</strong></td>
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</tbody>
</table>

**Total Credits: 21-22**

**Total Credits: 42-45**

**Certificate**

**Interdisciplinary Early Childhood Education Technical Studies - 1907093019**

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

**Required:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IEC 101</td>
<td>Orientation to Early Childhood Education</td>
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</tr>
<tr>
<td>IEC 102</td>
<td>Foundations of Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>IEC 120</td>
<td>Health, Safety, and Nutrition OR</td>
<td>3</td>
</tr>
<tr>
<td>KHP 230</td>
<td>Human Health &amp; Wellness OR</td>
<td>3</td>
</tr>
<tr>
<td>NFS 101</td>
<td>Human Nutrition and Wellness</td>
<td>3</td>
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<td>IEC 130</td>
<td>Early Childhood Development</td>
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<tr>
<td>IEC 170</td>
<td>Observation &amp; Assessment OR</td>
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</tr>
<tr>
<td>IEC 190</td>
<td>Applied Experiences in Early Childhood Education</td>
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</tr>
<tr>
<td>IEC 180</td>
<td>Approaches to Early Childhood Education Curriculum</td>
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<tr>
<td>IEC 200</td>
<td>Child Guidance</td>
<td>3</td>
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<tr>
<td>IEC 216</td>
<td>Literary and Language in IECE</td>
<td>3</td>
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<tr>
<td>IEC 221</td>
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<tr>
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<tr>
<td>IEC 235</td>
<td>Introduction to Inclusive Education</td>
<td>3</td>
</tr>
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<td>IEC 260</td>
<td>Infant and Toddler Education and Programming</td>
<td>3</td>
</tr>
<tr>
<td>IEC 291</td>
<td>IECE Practicum/Cooperative Education</td>
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</tr>
<tr>
<td><strong>Total Credits</strong></td>
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<td><strong>42</strong></td>
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</tbody>
</table>

**Child Care Assistant - 1907093039**

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

**Required:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IEC 101</td>
<td>Orientation to Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>IEC 102</td>
<td>Foundations of Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>Any IEC three (3) hour course with the exception of IEC 190, IEC 230, IEC 250, and IEC 291</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>9</strong></td>
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</tbody>
</table>

**Kentucky Child Care Provider - 1907093049**

(Offered at ASC, BLC, 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>IEC 101</td>
<td>Orientation to Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>3</strong></td>
</tr>
</tbody>
</table>
Invasive Cardiology

The goal of the Invasive Cardiology Program is to provide a competency-based didactic course with a well-rounded clinical experience. The student will be exposed to and expected to acquire skills, attitudes, and habits that are common to professionals in the medical field. Graduates will be prepared for a professional career as an Invasive Cardiovascular Technologist.

Certificate

Invasive Cardiology – 5109153019

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
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<td>Introduction to Cardiology</td>
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<tr>
<td>IVC 140</td>
<td>Invasive Cardiology I</td>
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<td>IVC 150</td>
<td>Invasive Cardiology II</td>
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<td>IVC 160</td>
<td>Invasive Cardiology Clinical Education I</td>
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<td>IVC 165</td>
<td>Invasive Cardiology Clinical Education II</td>
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</table>

Locomotive Technology

Expertise in the inspection, repair, service and overhaul of locomotive electrical systems. Interpreting specifications from locomotive manuals, using testing procedures and equipment, diagnosing problems and performing repairs. To work in the railroad industry, following DOT guidelines.

Certificates

Locomotive Electrical Technician - 4902993029

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>CIS 100</td>
<td>Introduction to Computers OR</td>
</tr>
<tr>
<td>CPU 150</td>
<td>Computer Fundamentals</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra OR</td>
</tr>
<tr>
<td>MAT 126</td>
<td>Technical Algebra &amp; Trigonometry</td>
</tr>
<tr>
<td>DIT 112</td>
<td>Diesel Engine Repair</td>
</tr>
<tr>
<td>DIT 113</td>
<td>Diesel Engine Repair Lab</td>
</tr>
<tr>
<td>ELT 110</td>
<td>Circuits I</td>
</tr>
<tr>
<td>ELT 114</td>
<td>Circuits II</td>
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<tr>
<td>ELT 210</td>
<td>Devices I</td>
</tr>
<tr>
<td>ELT 214</td>
<td>Devices II</td>
</tr>
<tr>
<td>EET 154</td>
<td>Electrical Construction I</td>
</tr>
<tr>
<td>EET 155</td>
<td>Electrical Construction I Lab</td>
</tr>
<tr>
<td>EET 270</td>
<td>Electrical Motor Controls I</td>
</tr>
<tr>
<td>EET 271</td>
<td>Electrical Motor Controls I Lab</td>
</tr>
<tr>
<td>EET 272</td>
<td>Electrical Motor Controls II</td>
</tr>
<tr>
<td>EET 273</td>
<td>Electrical Motor Controls II Lab</td>
</tr>
<tr>
<td>ENGT 242</td>
<td>Introduction to the Rail Industry</td>
</tr>
<tr>
<td>ENGT 240</td>
<td>Railroad Locomotive Electrical Systems</td>
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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

General Education Courses

<table>
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<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics or Higher General Education</td>
</tr>
<tr>
<td>MAT 126</td>
<td>Quantitative Reasoning course</td>
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<tr>
<td>MAT 150</td>
<td>Natural Sciences</td>
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<tr>
<td>COM 181</td>
<td>Social/Behavioral Sciences (Must be a different course from the ECO course selected in the Technical or Support Courses)</td>
</tr>
<tr>
<td>COM 252</td>
<td>Heritage/Humanities</td>
</tr>
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Technical or Support Courses

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<tr>
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<th>Credit</th>
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<tbody>
<tr>
<td>ACC 201</td>
<td>Financial Accounting</td>
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<tr>
<td>ACC 202</td>
<td>Managerial Accounting</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
</tr>
<tr>
<td>BAS 256</td>
<td>International Business</td>
</tr>
<tr>
<td>BAS 282</td>
<td>Principles of Marketing</td>
</tr>
<tr>
<td>BAS 283</td>
<td>Principles of Management OR</td>
</tr>
<tr>
<td>BAS 287</td>
<td>Supervisory Management</td>
</tr>
<tr>
<td>BAS 289</td>
<td>Operations Management</td>
</tr>
<tr>
<td>TEC 200</td>
<td>Technical Communications OR</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
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174
### Certificates

**Logistics Management – 5202033019**  
*(Offered at MYC, WKC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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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>
<td>3</td>
</tr>
<tr>
<td>LOM 210</td>
<td>Lean for Logistics</td>
<td>3</td>
</tr>
<tr>
<td>LOM 202</td>
<td>Applied Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>ECO 101</td>
<td>Contemporary Economic Issues OR</td>
<td>3</td>
</tr>
<tr>
<td>ECO 150</td>
<td>Global Economic Issues OR</td>
<td>3</td>
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<td>ECO 201</td>
<td>Principles of Microeconomics OR</td>
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<tr>
<td>ECO 202</td>
<td>Principles of Macroeconomics OR</td>
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<td>ENG 101</td>
<td>Digital Literacy*</td>
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<td>Electives**</td>
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**Supply Chain Management – 5202033029**  
*(Offered at MYC, WKC)*

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<tr>
<td>BAS 160</td>
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<tr>
<td>BAS 287</td>
<td>Operations Management</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>
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<td>Applied Supply Chain Management</td>
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**Logistics Technology – 5202033039**  
*(Offered at MYC, WKC)*

<table>
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<td>LOM 100</td>
<td>Introduction to Logistics Management</td>
<td>3</td>
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<tr>
<td>LOM 101</td>
<td>Transportation</td>
<td>3</td>
</tr>
<tr>
<td>LOM 102</td>
<td>Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>LOM 180</td>
<td>Project Management OR</td>
<td>3</td>
</tr>
<tr>
<td>LOM 210</td>
<td>Lean for Logistics</td>
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**International Logistics – 5202033049**  
*(Offered at MYC, WKC)*

<table>
<thead>
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<td>BAS 160</td>
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<tr>
<td>BAS 256</td>
<td>International Business</td>
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<td>LOM 100</td>
<td>Introduction to Logistics Management</td>
<td>3</td>
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<tr>
<td>LOM 101</td>
<td>Transportation</td>
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<td>LOM 102</td>
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*Digital literacy must be demonstrated either by competency exam or by completing an approved digital literacy course.

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**Manufacturing Engineering Technology**

The Manufacturing Engineering Technology degree offers students the opportunity to build a career in advanced manufacturing. It is focused on producing graduates to work as engineering technicians and first-line supervisors in manufacturing firms. The degree provides a broad foundation across many facets of operations management and manufacturing technologies. Graduates will be able to assist in leading projects across multiple disciplines in advanced manufacturing firms. They will possess an understanding of manufacturing operations and possess the interpersonal skills to lead work groups. They will be able to work in almost any manufacturing setting from discrete manufacturing to continuous flow and assembly line operations.

**Associate in Applied Science**

Manufacturing Engineering Technology - 1506137029  
*(Offered at GTW)*

### General Education

<table>
<thead>
<tr>
<th>Course Code</th>
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<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
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<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
<td>(3)</td>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra</td>
<td>3</td>
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<tr>
<td>MAT 155</td>
<td>Trigonometry</td>
<td>3</td>
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<tr>
<td>STA 220</td>
<td>Statistical Method OR</td>
<td>3</td>
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<tr>
<td>MAT 170</td>
<td>Brief Calculus with Applications</td>
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<tr>
<td>PSY 110</td>
<td>General Psychology OR</td>
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<td>SOC 101</td>
<td>Introduction to Sociology</td>
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### Core

<table>
<thead>
<tr>
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<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education OR</td>
<td>1</td>
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<tr>
<td>MFG 175</td>
<td>Lean Operations</td>
<td>(2)</td>
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<tr>
<td>ELT 110</td>
<td>Circuits I</td>
<td>5</td>
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<tr>
<td>ELT 201</td>
<td>Statics and Strengths of Materials</td>
<td>4</td>
</tr>
<tr>
<td>BAS 289</td>
<td>Operations Management OR</td>
<td>3</td>
</tr>
<tr>
<td>MFG 256</td>
<td>Production Management</td>
<td>(3)</td>
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<tr>
<td>MFG 135</td>
<td>Fundamentals of Mechatronics</td>
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<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
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### Technical Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BAS 287</td>
<td>Supervisory Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 288</td>
<td>Personal and Organizational Leadership</td>
<td>3</td>
</tr>
<tr>
<td>BRX 112</td>
<td>Blueprint Reading for Machinists OR</td>
<td>4</td>
</tr>
<tr>
<td>BRX 120</td>
<td>Basic Blueprint Reading</td>
<td>(3)</td>
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<tr>
<td>COE 199</td>
<td>Cooperative Education OR</td>
<td>1-5</td>
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<tr>
<td>CAD 102</td>
<td>Drafting Fundamentals OR</td>
<td>4</td>
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<tr>
<td>CAD 112</td>
<td>Engineering Graphics</td>
<td>(4)</td>
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<tr>
<td>DFT 152</td>
<td>Intermediate Computer Aided Drafting</td>
<td>4</td>
</tr>
<tr>
<td>EET 154</td>
<td>Electrical Construction I</td>
<td>2</td>
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<tr>
<td>EET 155</td>
<td>Electrical Construction I Lab</td>
<td>2</td>
</tr>
<tr>
<td>EET 264</td>
<td>Rotating Machinery</td>
<td>2</td>
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<tr>
<td>EET 265</td>
<td>Rotating Machinery Lab</td>
<td>2</td>
</tr>
<tr>
<td>EET 270</td>
<td>Electrical Motor Controls I</td>
<td>2</td>
</tr>
<tr>
<td>EET 271</td>
<td>Electrical Motor Controls I Lab</td>
<td>2</td>
</tr>
<tr>
<td>EET 272</td>
<td>Electrical Motor Controls II</td>
<td>2</td>
</tr>
<tr>
<td>EET 273</td>
<td>Electrical Motor Controls II Lab</td>
<td>2</td>
</tr>
<tr>
<td>EET 276</td>
<td>Programmable Logic Controllers</td>
<td>2</td>
</tr>
<tr>
<td>EET 277</td>
<td>Programmable Logic Controllers Lab</td>
<td>2</td>
</tr>
<tr>
<td>ELT 110</td>
<td>Circuits I</td>
<td>5</td>
</tr>
<tr>
<td>ELT 114</td>
<td>Circuits II</td>
<td>5</td>
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<tr>
<td>ELT 260</td>
<td>Robotics and Industrial Automation</td>
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<tr>
<td>ETT 110</td>
<td>Voice &amp; Data Installer Level I</td>
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175
Integrated Manufacturing Technologies - 1506133069
(Offered at GTW)

FPX 100 Fluid Power ....................................................... 3
FPX 101 Fluid Power Lab .................................................. 2
IMT 150 Maintaining Industrial Equipment I ........................... 3
IMT 151 Maintaining Industrial Equipment I Lab ....................... 2
MFG 145 Manufacturing Processes OR .................................. 3
CMM 110 Fundamentals of Machine Tool – A .......................... (3)
CMM 112 Fundamentals of Machine Tool – B .......................... (3)
CMM 118 Metrology and Control Charts ................................. 3
CMM 130 Manual Programming ........................................... 3
CMM 132 CAD/CAM/CNC .................................................... 3
MFG 256 Production Management ....................................... 2
QMS 101 Introduction to Quality Systems ................................ 3
QMS 200 Quality Audits ..................................................... 3
QMS 240 Statistics for Quality I (if ST291 is not taken in the core) .. 3
Subtotal 14

Quality Control - 1506133049
(Offered at GTW)

FPX 100 Fluid Power ....................................................... 3
FPX 101 Fluid Power Lab .................................................. 2
ETL 110 Circuits I ........................................................... 3
IMT 150 Maintaining Industrial Equipment I ........................... 3
IMT 151 Maintaining Industrial Equipment I Lab ....................... 2
EET 270 Electrical Motor Controls I ...................................... 2
EET 271 Electrical Motor Controls I Lab .................................. 2

Subtotal 18

Total Credits 63-67

A minimum of fourteen (14) credit hours must be taken from the approved technical elective list. Other courses may be taken with the approval of the program coordinator.

Certificates

Integrated Manufacturing Technologies - 1506133069
(Offered at GTW)

FPX 100 Fluid Power ....................................................... 3
FPX 101 Fluid Power Lab .................................................. 2
ETL 110 Circuits I ........................................................... 3
IMT 150 Maintaining Industrial Equipment I ........................... 3
IMT 151 Maintaining Industrial Equipment I Lab ....................... 2
EET 270 Electrical Motor Controls I ...................................... 2
EET 271 Electrical Motor Controls I Lab .................................. 2

Subtotal 18

Quality Control - 1506133049
(Offered at GTW)

FPX 100 Fluid Power ....................................................... 3
FPX 101 Fluid Power Lab .................................................. 2
ETL 110 Circuits I ........................................................... 3
IMT 150 Maintaining Industrial Equipment I ........................... 3
IMT 151 Maintaining Industrial Equipment I Lab ....................... 2
EET 270 Electrical Motor Controls I ...................................... 2
EET 271 Electrical Motor Controls I Lab .................................. 2

Subtotal 18

Total Credits 63-67

Two programs are offered under the broader heading of MIT.

MIT: Electrical Technology

The Electrical Technology Program focuses on preparing students for various entry-level electrical positions in industry and the building trades. The study of electrical theory in the classroom and the practical application of that theory in labs provide the foundation of this program. This program is versatile in offering three different tracks within the Associate of Applied Science degree. A variety of certificates and diplomas serve as pathways to the AAS degree tracks or as meeting specific training needs.

Students enrolled in the Electrical Technology program are required to achieve a minimum grade of “C” in the technical core and in those courses selected as technical electives.

Manufacturing Industrial Technology

Technical Core:

EET 119 Basic Electricity ...................................................... (5)
EET 264 Rotating Machinery .................................................. 2
EET 265 Rotating Machinery Lab ............................................. 2
EET 270 Electrical Motor Controls I ...................................... 2
EET 271 Electrical Motor Controls I Lab .................................. 2
EET 127 Electrical Capstone .................................................. 1

Total 18

Download PDF
Technical Core List: Pick a course(s) for a minimum of 4 credits and a maximum of 5 credits from this list.

ELT 110 Circuits I OR ........................................... 5
ELT 114 Circuits II .................................................. 5
EET 150 Transformers AND ..................................... 2
EET 151 Transformers Lab ....................................... 1
EET 152 Electrical Construction I AND ..................... 2
EET 153 Electrical Construction I Lab ......................... 2
EET 250 National Electric Code ................................ 1
EET 255 Electrical Construction Lab ........................... (4)
EET 256 Electrical Motor Controls II AND .................. 2
EET 265 Rotating Machinery ..................................... 2
EET 266 Rotating Machinery Lab ............................... 2
EET 270 Electrical Motor Controls I ............................ 2
EET 271 Electrical Motor Controls I Lab ...................... 2
EET 272 Electrical Motor Controls II AND ................. 2
EET 276 Programmable Logic Controllers AND .......... 2
EET 277 Programmable Logic Controllers Lab ............. 2
EET 278 Electrical Motor Controls II Lab .................... 2
EET 279 Electrical Motor Controls II and PLCs AND .... 2
ELT 265 Applied Fluid Power .................................. (3)
Technical Electives* ............................................. 7
Subtotal .............................................................. 22-24
Total Credits ....................................................... 65-68

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

Diploma

Electrical Technology - 4603024049

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

General Education:

Area 1
Written Communication ......................................... 3
Heritage/ Humanities ............................................ (3)
Oral Communications ............................................ (3)

Area 2
MAT 116 Technical Mathematics OR ......................... 3
MAT 126 Technical Algebra & Trigonometry OR .......... (3)
Higher Level Quantitative Reasoning Course ............. (3)
Subtotal .............................................................. 6

Technical Core:

ELT 110 Circuits I OR ........................................... 5
EET 119 Basic Electricity ....................................... (5)
EET 250 National Electric Code ................................ 4
EET 264 Rotating Machinery ..................................... 2
EET 265 Rotating Machinery Lab ............................... 2
EET 270 Electrical Motor Controls I ............................ 2
EET 271 Electrical Motor Controls I Lab ...................... 2
EET 127 Electrical Capstone .................................... 1
Technological Literacy ........................................... 3
Digital Literacy ..................................................... 3
Technical Electives* ............................................. 10
Subtotal .............................................................. 17-18
Total Credits ....................................................... 60-61

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

Motor Controls Electrician Track - 460302703

(Offered at BLC, OWC, WKC)

EET 272 Electrical Motor Controls II AND .................. 2
EET 273 Electrical Motor Controls II Lab AND .......... 2
EET 276 Programmable Logic Controllers AND ......... 2
EET 277 Programmable Logic Controllers Lab OR .... 2
EET 278 Electrical Motor Controls II and PLCs AND .... 3
FPX 100 Fluid Power AND ...................................... 3
FPX 101 Fluid Power Lab OR ................................... 2

Technical Core List: Pick a course(s) for a minimum of 4 credits and a maximum of 5 credits from this list.

EET 151 Transformers Lab ....................................... 1
EET 260 Robotics and Industrial Automation ............... 5
EET 154 Electrical Construction I AND ..................... 2
EET 155 Electrical Construction I Lab ....................... 2
EET 158 Electrical Construction II AND ..................... 2
EET 159 Electrical Construction II Lab ....................... 2
EET 174 Electrical Construction AND ....................... (3)
EET 175 Electrical Construction Lab ......................... (4)
Technical Electives* ............................................. 10
Subtotal .............................................................. 17-18
Total Credits ....................................................... 60-61

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.
### Electrician Trainee Level I - 4603023039

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

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<th>Hours</th>
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<td>Circuits I OR</td>
<td>5</td>
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<tr>
<td>EET 119</td>
<td>Basic Electricity</td>
<td>(5)</td>
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<td>Technical Electives</td>
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### Electrician Trainee Level II - 4603023059

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

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<th>Course Title</th>
<th>Hours</th>
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<tr>
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<td>Circuits I OR</td>
<td>5</td>
</tr>
<tr>
<td>EET 119</td>
<td>Basic Electricity</td>
<td>(5)</td>
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<td></td>
<td>Technical Electives</td>
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<td><strong>Total Credits</strong></td>
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### Residential Electricity Level I - 4603023049

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

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<th>Course Title</th>
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<tbody>
<tr>
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<tr>
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<tr>
<td>EET 154</td>
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### Residential Electricity Level II - 4603023069

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

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<td>Transformers Lab</td>
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<tr>
<td>EET 268</td>
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<td>If any student successfully tests out of Digital Literacy, he/she must take an additional Technical Course approved by the Electrical Program Coordinator</td>
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### Electrical Motor Control Level I - 4603023079

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

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<td>EET 150</td>
<td>Transformers AND</td>
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<td>EET 151</td>
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<td>EET 264*</td>
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<td>EET 268</td>
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<td><strong>Total Credits</strong></td>
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*May be offered in different combinations.*
**MIT: Industrial Maintenance Technology**

**Industrial Maintenance Track:**
An understanding of the requirements and opportunities in maintenance, good safety practices, pride in workmanship, and an understanding of the principles and accepted practices of the maintenance trade are covered in this program. Students are trained to hold positions in factories, hospitals, hotels, etc., where multi-skilled maintenance personnel are needed. Included are courses in air conditioning, carpentry, electricity, machine tool, metal fabrication, and welding.

Progression in the Industrial Maintenance Technology program is contingent upon achievement of a grade of “C” or better in each technical course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

**Advanced Manufacturing Technician Track**
Advanced Manufacturing requires demonstrating multiple skills and competencies. Students accepted into this program gain valuable workplace experience, working three (3) days in a manufacturing environment and two (2) days on campus in a manufacturing-based classroom. Critical conceptual components of the track include embedded Safety Culture, Workplace Organization (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).

**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).

**Associate in Applied Science**

**Industrial Maintenance Technology - 4703037019**
*(Offered at BLC, ELC, GTW, HEC, JFC, SKY, SMC, WKC)*

**General Education Core:**

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<td>MAT 116</td>
<td>Technical Mathematics OR Higher ........................ 3</td>
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<td>Natural Sciences ........................................... 3</td>
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<td>Heritage/Humanities ...................................... 3</td>
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<td>Oral Communications ...................................... 3</td>
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**Subtotal** 18

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**Voices and Data Wiring Installer Level I - 4603023099**
*(Offered at ASC, BLC, ELC, GTW, SMC)*

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* May be offered in different combinations.

**Voices and Data Wiring Installer Level II - 4603023109**
*(Offered at BLC, ELC, GTW, SMC)*

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**Voices and Data Wiring Technician - 4603023119**
*(Offered at BLC, ELC, GTW, SMC)*

<table>
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<td>ETT 123</td>
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**Technical Core:**

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<td>Industrial Maintenance Electrical Principles AND</td>
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<td>EET 119</td>
<td>Basic Electricity</td>
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<td>Maintaining Industrial Equipment I AND</td>
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**Subtotal: 28-32**

**Technical Electives:**

Eighteen (18) credit hours of electives must be taken from the approved list. The list is not all inclusive. Other technical elective courses may be taken with approval of the program instructor/advisor.

**Subtotal: 18**

**Total Credits: 64-68**

**Technical Electives List:**

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<th>Course Code</th>
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**Advanced Manufacturing Technician Track-470303702**

*(Offered at BLC, GTW, JFC, SKY, SMC)*

**Technical Core:**

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<th>Credits</th>
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<tr>
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<td>EET 270</td>
<td>Electrical Motor Controls I AND</td>
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<td>EET 271</td>
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<td>EET 272</td>
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Subtotal: 53 Credits

**Total Credits:** 71

*Note: Only Integrated Engineering Technology (IET) courses are approved for substitution into the Advanced Manufacturing Technician Track.*

*Note: Minimum of 1,824 hours of Industry Sponsored Internship.*

**Technical Electives:**

- **IF courses equaling 10 credits are taken, five (5) credits may be used as electives.**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
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<td>Welding for Maintenance Lab</td>
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<td>Shielded Metal Arc-Welding AND</td>
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<td>IMT 120</td>
<td>Shielded Metal Arc-Welding Lab OR</td>
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<tr>
<td>IMT 121</td>
<td>Shielded Metal Arc-Welding Lab</td>
<td>2</td>
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<td>EET 270</td>
<td>Rotating Machinery AND</td>
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<td>EET 275</td>
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Subtotal: 28-32

**Total Credits:** 49-53

**Fluid Power Mechanic - 4703033129**

*(Offered at BLC, BSC, ELC, HPC, MYC, OWC, SMC, WKC)*

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<td>FPX 101</td>
<td>Fluid Power Lab OR</td>
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<tr>
<td>ELT 265</td>
<td>Applied Fluid Power</td>
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<tr>
<td>MST 200</td>
<td>Advanced Hydraulic Systems AND</td>
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</tr>
<tr>
<td>MST 201</td>
<td>Advanced Hydraulic Systems Lab OR</td>
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</tr>
<tr>
<td>MST 204</td>
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<tr>
<td>MST 205</td>
<td>Advanced Pneumatic Systems Lab</td>
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**Total Credits:** 8-10

**Industrial Maintenance Machinists Mechanic - 4703033119**

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

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<td>BRX 112</td>
<td>Blueprint Reading for Machinist OR</td>
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<td>ELL 102</td>
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<td>WLD 121</td>
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<tr>
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<td>Gas Metal Arc-Welding AND</td>
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**Total Credits:** 36-40

**Technical Electives:**

- **Fifteen (15) credit hours of electives must be taken from the approved list. The list is not all inclusive. Other technical elective courses may be taken with approval of the program instructor/advisor.**

**Certificates**

**Diploma**

**Industrial Maintenance Technician - 4703034049**

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

**General Education:**

**Area 1 =**

- Written Communication, Oral Communications, or Heritage/Humanities | 3

**Area 2 =**

- Technical Mathematics OR Higher | 3

**Subtotal:** 6

**Technical Core:**

- Digital Literacy | 3
- BRX 120 | Basic Blueprint Reading OR | 3
- BRX 110 | Basic Blueprint Reading for Machinist OR | 2
- BRX 112 | Blueprint Reading for Machinist OR | 2
- ELL 102 | Blueprint Reading | 2
- FXP 100 | Fluid Power AND | 3
- FXP 101 | Fluid Power Lab OR | 2
- ELL 265 | Applied Fluid Power | 2
- IMT 110 | Industrial Maintenance Electrical Principles AND | 3
- IMT 111 | Industrial Maintenance Electrical Principles Lab OR | 2
- ELL 110 | Circuits I OR | 2
- ELL 119 | Basic Electricity | 1

**Subtotal:** 28-32

**Total Credits:** 49-53

**Fluid Power Mechanic - 4703033129**

*(Offered at BLC, BSC, ELC, HPC, MYC, OWC, SMC, WKC)*

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<td>Applied Fluid Power</td>
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<tr>
<td>MST 200</td>
<td>Advanced Hydraulic Systems AND</td>
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<td>MST 201</td>
<td>Advanced Hydraulic Systems Lab OR</td>
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<td>MST 204</td>
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**Total Credits:** 8-10

**Industrial Maintenance Machinists Mechanic - 4703033119**

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

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<td>WLD 121</td>
<td>Shielded Metal Arc-Welding Lab OR</td>
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<td>WLD 140</td>
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**Total Credits:** 36-40
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<td>ELT 110</td>
<td>Circuits I OR</td>
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<tr>
<td>EET 119</td>
<td>Basic Electricity</td>
<td>5</td>
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<td>IMT 110</td>
<td>Industrial Maintenance Electrical Principles</td>
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<td>Industrial Maintenance Electrical Principles Lab</td>
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<td>IMT 220</td>
<td>Industrial Maintenance Electrical Motor Controls I AND</td>
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<td>Fundamentals of Machine Tools - A AND</td>
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**Total Credits**: 19-21

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**Industrial Maintenance Electrical Mechanic - 4703033159**

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

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<td>Industrial Maintenance Electrical Principles AND</td>
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<td>Industrial Maintenance Rotating Machining Lab</td>
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<tr>
<td>EET 264</td>
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<tr>
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<td>IMT 281</td>
<td>Advanced Programmable Logic Controllers Lab OR</td>
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<td>EET 276</td>
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**Total Credits**: 12-15

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**Industrial Maintenance Mechanic Level I - 4703033139**

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

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<td>ELT 265</td>
<td>Applied Fluid Power</td>
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<td>Industrial Maintenance Electrical Principles AND</td>
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<td>IMT 116</td>
<td>Industrial Maintenance Electrical Principles OR</td>
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<td>ELT 110</td>
<td>Circuits I OR</td>
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<td>EET 119</td>
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**Total Credits**: 13-15

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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>ELT 265</td>
<td>Applied Fluid Power</td>
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<td>IMT 116</td>
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**Total Credits**: 34
Industrial Maintenance Robotics Technician – 4703033239
(Offered at BLC, ELC, HPC, JFC, MYC, SMC, WKC)

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<td>ELT 110</td>
<td>Circuits I OR</td>
<td>(5)</td>
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<td>EET 119</td>
<td>Basic Electricity</td>
<td>(5)</td>
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<td>Fluid Power AND</td>
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</tr>
<tr>
<td>FPX 101</td>
<td>Fluid Power Lab OR</td>
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<td>ELT 265</td>
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<td>IMT 220</td>
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<td>Industrial Maintenance Electrical Control I Lab OR</td>
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<td>Electrical Motor Controls I OR</td>
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<td>Industrial Maintenance Rotating Machinery Lab</td>
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<td>IMT 280</td>
<td>Advanced Programmable Logic Controllers AND</td>
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<tr>
<td>IMT 200</td>
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**Total Credits** 25-29

### Marine Technology

The Marine Technology curriculum is designed to provide a strong theoretical base for employees of the inland marine industry. The program introduces students to basic inland marine principles and concepts by applying contemporary skills in a variety of employment positions based on industry needs. It provides students with a strong foundation of managerial and operational knowledge by applying a problem-solving approach in state-of-the-art classroom and work environment experiences. 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>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>MAT 116</td>
<td>Technical Mathematics or Higher Level Quantitative Reasoning Course</td>
<td>3</td>
</tr>
<tr>
<td>GEN 140</td>
<td>Development of Leadership</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Natural Sciences</td>
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<td><strong>Subtotal</strong></td>
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**Technical Core (required for all tracks):**

- Digital Literacy ........................................... 0-3
- BAS 160 Introduction to Business ................. 3
- MRN 100 Introduction to Marine Technology ....... 3
- MRN 101 Anatomy of a Towboat ....................... 3
- MRN 102 Basic Marine Safety ............................. 3
- MRN 103 Applied Marine Weather ..................... 3
- MRN 104 Marine Crew Wellness ....................... 3
- MRN 203 Environmental Protection Rules ........... 3
- HSM 100 Introduction to Homeland Security ........ 3
- HSM 110 Introduction to Emergency Management .... 3

**Subtotal** 27-30

**Wheelhouse Management Track – 490399701 (Offered at WKC)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 120</td>
<td>Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 287</td>
<td>Supervisory Management</td>
<td>3</td>
</tr>
<tr>
<td>MRN 200</td>
<td>Shipboard Deck Operations</td>
<td>3</td>
</tr>
<tr>
<td>MRN 201</td>
<td>Rules of the Road</td>
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<tr>
<td>MRN 202</td>
<td>Piloting and Navigation</td>
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**Track Total** 60-64

**Marine Engineering Track – 490399702 (Offered at WKC)**

<table>
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<tr>
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<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>BAS 120</td>
<td>Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 289</td>
<td>Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>MRN 208</td>
<td>Inland River Systems</td>
<td>3</td>
</tr>
<tr>
<td>LOM 100</td>
<td>Introduction to Logistics Management</td>
<td>3</td>
</tr>
<tr>
<td>LOM 101</td>
<td>Transportation</td>
<td>3</td>
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<tr>
<td><strong>Track Subtotal</strong></td>
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**Track Total** 61-64

**Marine Logistics Operations Track – 490399703 (Offered at WKC)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
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<tbody>
<tr>
<td>BAS 120</td>
<td>Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 289</td>
<td>Operations Management</td>
<td>3</td>
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<tr>
<td>MRN 208</td>
<td>Inland River Systems</td>
<td>3</td>
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<tr>
<td>LOM 100</td>
<td>Introduction to Logistics Management</td>
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<td>LOM 101</td>
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**Track Total** 60-63

**Marine Culinary Management Track – 490399705 (Offered at WKC)**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>BAS 120</td>
<td>Personal Finance</td>
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</tr>
<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>CUL 100</td>
<td>Introduction to Culinary Arts</td>
<td>2</td>
</tr>
<tr>
<td>CUL 200</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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<td>MRN 208</td>
<td>Inland River Systems</td>
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</tr>
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<td><strong>Track Subtotal</strong></td>
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**Track Total** 61-64

### Certificates

**Marine Technology Business – 4903993019 (Offered at WKC)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>BAS 120</td>
<td>Digital Literacy</td>
<td>0-3</td>
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<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
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<tr>
<td>BAS 283</td>
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<td>BAS 289</td>
<td>Operations Management</td>
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<tr>
<td>LOM 100</td>
<td>Introduction to Logistics Management</td>
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<td>3</td>
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**Marine Industry - 4903993029 (Offered at WKC)**

<table>
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<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>MRN 100</td>
<td>Digital Literacy</td>
<td>0-3</td>
</tr>
<tr>
<td>MRN 101</td>
<td>Introduction to Marine Technology</td>
<td>3</td>
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<tr>
<td>MRN 102</td>
<td>Anatomy of a Towboat</td>
<td>3</td>
</tr>
<tr>
<td>MRN 103</td>
<td>Basic Marine Safety</td>
<td>3</td>
</tr>
<tr>
<td>MRN 104</td>
<td>Applied Marine Weather</td>
<td>3</td>
</tr>
<tr>
<td>MRN 203</td>
<td>Marine Crew Wellness</td>
<td>3</td>
</tr>
<tr>
<td>MRN 204</td>
<td>Environmental Protection Rules</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>18-21</strong></td>
</tr>
</tbody>
</table>
Masonry

The Masonry program prepares students for employment in the construction of houses, commercial structures and other projects involving brick, stone and other masonry materials. This program includes blueprint reading, introductory, intermediate and advanced masonry projects. Cost estimating, preparing materials lists, and practical experiences are included.

Progression in the Masonry program is contingent upon achievement of a grade of “C” or better in each technical course and maintenance of a 2.0 cumulative grade point average.

Diploma

Construction Mason - 4601014019
(Offered at BLC, BSC, JFC, MYC)

General Education: 6-9 credit hour requirement for diplomas in areas 1-3
Area 1 = Written Communication, Oral Communications, or Heritage/Humanities .................................. 3
Area 2 = Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning .................................. 3
Subtotal 6

Technical Courses:
Computer/Digital Literacy course OR demonstrated competency .................................................. 0-3
BRX 220 Blueprint Reading for Construction .................................. 3
ISX 100 Industrial Safety OR .................................................. 3
ISX 101 Introduction to Industrial Safety .................................. (3)
MSY 105 Introductory Masonry .................................................. 3
MSY 115 Intermediate Masonry .................................................. 3
MSY 199 Cooperative Education OR ........................................... 3
MSY 198 Practicum .................................................. (3)
MSY 205 Advanced Masonry .................................................. 3
MSY 215 Masonry Lab .................................................. 3
MSY 225 Brick Construction .................................................. 3
MSY 235 Special Techniques in Brick Construction .................................................. 3
MSY 245 Anchors and Reinforcement .................................................. 3
MSY 275 Fireplace Construction .................................................. 3
MSY 299 Cooperative Education OR ........................................... 3
MSY 298 Practicum .................................................. (3)
Technical Electives* ........................................................................ 6
Subtotal 42-45
Total Credits 48-51

Electives (Optional):
MSY 291 Special Problems III .................................................. (3)

Certificates

Bricklayer Trainee - 4601013019
(Offered at WKC)

ISX 100 Industrial Safety OR .................................................. 3
ISX 101 Introduction to Industrial Safety .................................. (3)
MSY 105 Introductory Masonry .................................................. 3
MSY 115 Intermediate Masonry .................................................. 3
MSY 199 Cooperative Education OR ........................................... 3
MSY 198 Practicum .................................................. (3)
MSY 205 Advanced Masonry .................................................. 3
MSY 215 Masonry Lab .................................................. 3
MSY 225 Brick Construction .................................................. 3
MSY 235 Special Techniques in Brick Construction .................................................. 3
MSY 245 Anchors and Reinforcement .................................................. 3
Total Credits 27

Bricklayer Helper - 4601013029
(Offered at BLC, BSC, JFC, MYC)

ISX 100 Industrial Safety OR .................................................. 3
ISX 101 Introduction to Industrial Safety .................................. (3)
MSY 105 Introductory Masonry .................................................. 3
MSY 215 Masonry Lab .................................................. 3
MSY 291 Special Problems III .................................................. 3
Total Credits 12

Construction Bricklayer - 4601013039
(Offered at BLC, BSC, JFC, MYC)

BRX 220 Blueprint Reading for Construction .................................................. 3
ISX 100 Industrial Safety OR .................................................. 3
ISX 101 Introduction to Industrial Safety .................................. (3)
MSY 105 Introductory Masonry .................................................. 3
MSY 115 Intermediate Masonry .................................................. 3
MSY 199 Cooperative Education OR ........................................... 3
MSY 198 Practicum .................................................. (3)
MSY 205 Advanced Masonry .................................................. 3
MSY 215 Masonry Lab .................................................. 3
MSY 225 Brick Construction .................................................. 3
MSY 235 Special Techniques in Brick Construction .................................................. 3
MSY 245 Anchors and Reinforcement .................................................. 3
MSY 275 Fireplace Construction .................................................. 3
MSY 299 Cooperative Education OR ........................................... 3
MSY 298 Practicum .................................................. (3)
Total Credits 36

Electives (Optional):
MSY 291 Special Problems III .................................................. (1-3)

Stone Mason - 4601013049
(Offered at BLC, BSC, JFC, MYC)

BRX 220 Blueprint Reading for Construction .................................................. 3
MSY 105 Introductory Masonry .................................................. 3
MSY 115 Intermediate Masonry .................................................. 3
MSY 205 Advanced Masonry .................................................. 3
MSY 215 Masonry Lab .................................................. 3
MSY 245 Anchors and Reinforcement .................................................. 3
MSY 253 Masonry Floors and Steps .................................................. 3
MSY 257 Stone .................................................. 3
MSY 275 Fireplace Construction .................................................. 3
Total Credits 27
Clinical: prepare patient for examination procedures and treatment, record medical histories, take vital signs, chart patient information, administer medications and injections, provide patient instruction and education, perform venipunctures, collect and prepare other specimens, perform electrocardiograms (ECG), sterilize instruments, and perform basic laboratory tests.

With additional education, the medical assisting graduate may perform limited radiography.

The Medical Assistant is a vital liaison between the doctor and patient and plays an important role in diagnosis and treatment. The many different roles assumed in this profession assure a fast moving and challenging career.

Progression in the Medical Assisting program is contingent upon achievement of a grade of “C” or above in each required course and maintenance of a 2.0 cumulative grade-point average or above (on a 4.0 scale).

Clinical orientation and externship are “non-paid work assignments.” CPR requirements must be successfully completed prior to enrolling in the first clinical externship and must be kept current throughout the program.

Transportation to the physician’s offices/community agencies is the responsibility of each student.

According to the Commission on Accreditation of Allied Health Education Programs (CAAHEP), all accredited medical assisting program related courses must be taught by approved faculty and meet the requirements according to CAAHEP standards and guidelines.

The Medical Assisting programs at the colleges listed below are accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahp.org) on the recommendation of the Medical Assisting Education Review Board (MAERB).

Commission on Accreditation of Allied Health Education Programs
1361 Park Street, Clearwater
FL 33756, 727/210-2350
www.caahp.org

Bluegrass CTC (AAS and Diploma), Henderson CC (AAS), Jefferson CTC (Diploma), and Maysville CTC - Maysville & Rowan Campuses (Diploma).

Associate in Applied Science
Medical Assisting - 5108017029
(Offered at BLC, GTW, HEC, JFC)

Required General Education:
MAT 105 Mathematics for Business OR .............................................. 3
MAT 110 Applied Mathematics .................................................. (3)
Higher Level Quantitative Reasoning Course ................................(3)
BIO 135 Basic Anatomy and Physiology with Laboratory OR ........ 4
BIO 137 Human Anatomy & Physiology I AND ....................... (4)
BIO 139 Human Anatomy & Physiology II ......................... (4)
PSY 110 General Psychology .................................................... 3
ENG 101 Writing I ........................................................................ 3
Heritage/Humanities ............................................................... 3

Total 16-20

Additional Suggested General Education Courses (Not Required)
ENG 102 Writing II .......................................................................... (3)
COM 181 Basic Public Speaking OR ............................................. (3)
COM 252 Introduction to Interpersonal Communications............ (3)
Support Classes

AHS 115 Medical Terminology OR .................................................. 3
CLA 131 Medical Terminology from Greek and Latin OR ............... (3)
MIT 103 Medical Office Terminology ............................................ (3)
CPR 100 CPR for Health Care Professionals OR ...................... 1
KHP 190 First Aid and Emergency Care .................................. (2)
Digital Literacy ........................................................................... 3
Subtotal ................................................................. 7-8

NOTE: Credit for CPR 100 may be granted with proof of CPR certification for Health Care Professionals.

Core Courses

MAI 105 Introduction to Medical Assisting ...................................... 3
MAI 120 Medical Assisting Laboratory Techniques I ...................... 3
MAI 140 Medical Assisting Clinical Procedures I ......................... 4
MAI 150 Medical Assisting Administrative Procedures I OR .......... 3
MIT 217 Medical Office Procedures ............................................. (3)
MAI 170 Dosage Calculations .................................................... 2
MAI 200 Pathophysiology for the Medical Assistant .................... 3
MAI 220 Medical Assisting Laboratory Techniques II .................. 3
MAI 230 Medical Insurance OR .................................................. 3
MIT 104 Introduction to Medical Insurance .................................. 3
MIT 103 Medical Office Terminology ........................................... (3)
MIT 227 Medical Office Software .............................................. (3)
MAI 270 Pharmacology for the Medical Assistant ..................... 3
MAI 281 Medical Assisting Practicum ........................................ 1
MAI 284 Medical Assisting Externship ....................................... 2-3
Subtotal ................................................................. 37-38

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

Elective Courses:

OST 100 Keyboarding ................................................................. (1)
MAI 260 Medical Transcription .................................................. (3)
MAI 299 Selected Topics: Medical Assisting: (Topic) ............... (1-4)

Diploma

Medical Assisting - 5108014020
(Offered at BLC, HEC, JFC, MYC, 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 ................................... (4)
ENG 101 Writing I OR ................................................................. 3
TEC 200 Technical Communications ......................................... (3)
Subtotal ................................................................. 7-11

Support Classes

AHS 115 Medical Terminology OR .................................................. 3
AHS 120 Medical Terminology OR ................................................. (1)
CLA 131 Medical Terminology from Greek and Latin OR ........... (3)
MIT 103 Medical Office Terminology ........................................... (3)
CPR 100 CPR for Health Care Professionals OR ...................... 1
KHP 190 First Aid and Emergency Care .................................. (2)
Digital Literacy ........................................................................... 3
Subtotal ................................................................. 5-8

Electrocardiograph Technician - 5108013149
(Offered at JFC, MYC)

BIO 135 Basic Anatomy and Physiology with Laboratory OR .......... 4
BIO 137 Human Anatomy & Physiology I AND ............................ (4)
BIO 139 Human Anatomy & Physiology II ................................... (4)
AHS 115 Medical Terminology OR ............................................. (1)
AHS 120 Medical Terminology OR ............................................. (3)
CLA 131 Medical Terminology from Greek and Latin OR ........... (3)
MIT 103 Medical Office Terminology ........................................... (3)
MIT 227 Medical Office Software .............................................. (3)
MAI 281 Medical Assisting Practicum ........................................ 1
Digital Literacy ........................................................................... 3
Subtotal ................................................................. 18-24

Medical Office Administrative Assistant - 5108013069
(Offered at BLC, HEC, JFC, MYC, SEC, SMC)

BIO 135 Basic Anatomy and Physiology with Laboratory OR .......... 4
BIO 137 Human Anatomy & Physiology I AND ............................ (4)
BIO 139 Human Anatomy & Physiology II ................................... (4)
AHS 115 Medical Terminology OR ............................................. (1)
AHS 120 Medical Terminology OR ............................................. (3)
CLA 131 Medical Terminology from Greek and Latin OR ........... (3)
MIT 103 Medical Office Terminology ........................................... (3)
MIT 227 Medical Office Software .............................................. (3)
MAI 281 Medical Assisting Practicum ........................................ 1
Digital Literacy ........................................................................... 3
Subtotal ................................................................. 18-24

Medical Office Insurance Billing and Coding - 5108013049
(Offered at BLC, HEC, JFC, MYC, SEC, SMC)

AHS 115 Medical Terminology OR .................................................. 3
AHS 120 Medical Terminology OR .................................................. (1)
CLA 131 Medical Terminology from Greek and Latin OR ........... (3)
MIT 103 Medical Office Terminology ........................................... (3)
BIO 135 Basic Anatomy and Physiology with Laboratory OR .......... 4
BIO 137 Human Anatomy & Physiology I AND ............................ (4)
BIO 139 Human Anatomy & Physiology II ................................... (4)
MAI 150 Medical Assisting Administrative Procedures I OR .......... 3
MIT 217 Medical Office Procedures ............................................. (3)
MAI 230 Medical Insurance OR .................................................. 3
MIT 240 Medical Assisting Clinical Procedures II ......................... 4
MAI 250 Medical Assisting Administrative Procedures II OR .......... 3
MIT 227 Medical Office Software .............................................. (3)
MAI 270 Pharmacology for the Medical Assistant ..................... 3
MAI 281 Medical Assisting Practicum ........................................ 1
MAI 284 Medical Assisting Externship ....................................... 2-3
Subtotal ................................................................. 37-38

Total Credits .................................................. 49-57

Certificates

Medical Office Billing and Coding - 5108013049
(Offered at BLC, HEC, JFC, MYC, SEC, SMC)

Electrocardiograph Technician - 5108013149
(Offered at JFC, MYC)
The Medical Laboratory Technician (MLT) program provides students with the opportunity to acquire the necessary skills to work under the supervision of a registered clinical scientist or pathologist in a clinical laboratory, hospital, or other health agency.

The MLT student learns to collect specimens from the patient and perform laboratory tests in all areas of the clinical laboratory to include immunohematology, clinical chemistry, hematology, microbiology, serology and urinalysis.

Students enrolled in the MLT program must achieve a minimum grade of “C” in each of the medical laboratory technician courses.

Upon completion of the program, the graduate is eligible for the national certification examination as a medical laboratory technician.

The following Associate Degree Medical Laboratory Technician Programs are fully accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). Address and telephone number of NAACLS are: NAACLS, 5600 North River Road, Suite 720, Rosemont, Illinois 60018. Telephone: 773.714.8880 Fax: 773.714.8886 (Website): http://www.naacls.org (E-mail): info@naacls.org.

Henderson Community College, Madisonville Community College, Somerset Community College, Southeast Kentucky Community and Technical College, West Kentucky Community and Technical College, and Jefferson Community and Technical College (Accreditation Pending).

All program graduates take the national board exam, called the Board of Certification of the American Society of Clinical Pathology, after having met their academic and laboratory educational requirements. If successful, graduates may then use the initials “MLT (ASCP)” indicating proficiency in laboratory medicine.

## Associate in Applied Science
### Medical Laboratory Technician - 5110047049
(Offered at HEI, JFC, MDC, MYC, SEC, SMC, WKC)

#### General Education Courses:
- ENG 101 Writing I .......................................................... 3
- MAT 110 Applied Mathematics OR .................................... 3
- Higher Quantitative Reasoning course ................................. (3)
- CHE 130 Introductory General and Biological Chemistry OR .... 4
- Higher Chemistry course .................................................. (3)
- PSY 110 General Psychology .............................................. 3
- Heritage/Humanities ....................................................... 3
- COM 181 Basic Public Speaking OR .................................... 3
- COM 252 Introduction to Interpersonal Communication ............. (3)

**Subtotal** 15-19

#### Core Courses:
- BIO 135 Basic Anatomy & Physiology with Laboratory* .......... 4
- MLT 112 Urinalysis ......................................................... 2
- MLT 125 Microbiology ..................................................... 2
- MLT 215 Hematology I AND ............................................. 4
- MLT 216 Hematology II OR ............................................... 3
- MLT 217 Fundamentals of Hematology AND* ......................... (3)
- MLT 218 Clinical Hematology ........................................... (4)
- MLT 222 Immunohematology I AND .................................... 2
- MLT 226 Immunohematology II OR .................................... 2
- MLT 227 Immunohematology ............................................. (4)
- MLT 278 Practicum Pathway I ............................................ 4
- Pathway 2 ................................................................. 5

**Subtotal** 23-27

**Total Credit Hours – Pathway I** 64-68

### Pathway I - 511004703
(Offered at SMC, SEC, HEC)

- BIO 225 Medical Microbiology ........................................... 4
- MLT 101 Introduction to the Clinical Laboratory AND ............... 3
- PHB 151 Phlebotomy for the Health Care Worker AND .......... 1
- PHB 152 Phlebotomy: Clinical Experience ............................ 1
- MLT 205 Clinical Microbiology I AND ................................ 3
- MLT 206 Clinical Microbiology II ....................................... 2
- MLT 233 Clinical Chemistry I AND .................................... 3
- MLT 234 Clinical Chemistry II .......................................... 2
- MLT 279 Practicum .......................................................... 4

**Subtotal** 23

**Total Credit Hours – Pathway I** 64-68

### Pathway II - 511004704
(Offered at JFC, MDC, MYC, WKC)

- MLT 207 Introduction to Clinical Diagnostics Microbiology ....... 2
- PHB 170 Applied Phlebotomy AND .................................... 3
- PHB 152 Phlebotomy: Clinical Experience ............................ 1
- MLT 208 Clinical Diagnostic Microbiology I AND ................. 3
- MLT 209 Clinical Diagnostic Microbiology II ........................ 2
- MLT 247 Introduction to Clinical Chemistry AND ..................... 3
- MLT 248 Advanced Clinical Chemistry ................................ 3
- MLT 279 Practicum .......................................................... 5

**Subtotal** 22

**Total Credit Hours – Pathway II** 64-68
Diploma
Certified Medical Laboratory Assistant - 5110044029
(Offered at MDC)

General Education Courses:
Course from Area I:
ENG 101 Writing I ............................................. 3
Course from Area II:
MAT 110 Applied Mathematics OR .......................... 3
Higher Quantitative Reasoning course ............... (3)
Subtotal .................................................. 6

Support Courses:
Digital Literacy ............................................ 0-3
BIO 135 Basic Anatomy & Physiology with Laboratory* ....... 4
BIO 225 Medical Microbiology OR ......................... 4
MLT 207 Introduction to Clinical Diagnostic Microbiology .... (2)
Subtotal .................................................. 6-11

*BIO 137 & BIO 139 may be substituted for BIO 135.

Technical Courses:
MLT 101 Introduction to the Clinical Laboratory AND ....... 3
PHB 151 Phlebotomy for the Health Care Worker AND ..... 1
PHB 152 Phlebotomy: Clinical Experience AND ............ 1
MLT 225 Immunohematology I OR ........................... 2
PHB 170 Applied Phlebotomy AND ....................... (3)
PHB 152 Phlebotomy: Clinical Experience .................. (1)
MLT 112 Uroanalysis .......................................... 2
MLT 115 Serology ............................................. 2
MLT 217 Fundamentals of Hematology OR ................. 3
MLT 215 Hematology I ........................................ 3
MLT 247 Introduction to Clinical Chemistry OR ............ (4)
MLT 233 Clinical Chemistry I ................................ 3
MLT 275 Clinical Experience ................................ 1
MLT 278 Practicum I ........................................... 4
OST 217 Medical Office Procedures OR .................... 3
MAI 150 Medical Assisting Administrative Procedures I .... (3)
Subtotal .................................................. 22-26
Total ..................................................... 34-43

Certificates
Physician’s Office Laboratory - 5110043029
(Offered at BLC, HEC, HZC, JFC, MDC, SEC, SMIC, WKC)

PHB 151 Phlebotomy AND ..................................... 1
PHB 152 Phlebotomy: Clinical Experience AND .......... 1
MLT 101 Introduction to the Clinical Laboratory OR ....... 3
PHB 170 Applied Phlebotomy AND ....................... (3)
PHB 152 Phlebotomy: Clinical Experience .................. (1)
MLT 112 Uroanalysis .......................................... 2
MLT 115 Serology ............................................. 2
Total ..................................................... 8-9

Phlebotomist - 5110043019
(Offered at HZC, JFC, MYC)

PHB 100 Phlebotomy ............................................. 6
PHB 155 Phlebotomy Clinical .................................. (2-3)
Total ..................................................... 8-9

Phlebotomy for the Health Care Worker - 5110043039
(Offered at BLC, HEC, HPC, HZC, JFC, MDC, MYC, OW, SEC, SMIC, WKC)

PHB 151 Phlebotomy AND ..................................... 1
PHB 152 Phlebotomy: Clinical Experience AND .......... 1
MLT 101 Introduction to the Clinical Laboratory OR ....... 3
PHB 170 Applied Phlebotomy AND ....................... (3)
PHB 152 Phlebotomy: Clinical Experience .................. (1)
Total ..................................................... 4-5

Advanced Phlebotomy Technician - 5110043049
(Offered at HZC, SEC)

PHB 151 Phlebotomy AND ..................................... 1
PHB 152 Phlebotomy: Clinical Experience AND .......... 1
PHB 155 Phlebotomy Clinical AND .......................... 2
MLT 101 Introduction to the Clinical Laboratory OR ....... 3
PHB 151 Phlebotomy AND ..................................... (1)
PHB 153 Advanced Topics in Phlebotomy AND .......... (4)
PHB 155 Phlebotomy Clinical OR ............................. (3)
PHB 170 Applied Phlebotomy AND ....................... (3)
PHB 152 Phlebotomy: Clinical Experience AND .......... (1)
PHB 155 Phlebotomy Clinical .................................
Total ..................................................... 6-8

Mining Technology

The Mining Technology program will focus on the knowledge needed to succeed in the coal mining industry. Emphasis will be given to the statutory rights and safety procedures in all of the offerings including: the self-rescuer device, transportation controls, communication controls, mining conditions, mining methods, mining cycle, escapeways, emergency procedures, roof control, ground control, ventilation, health hazards, clean-up and rock dusting, health and safety aspects of assigned task, mine gases, explosives, compressed cylinders, electrical hazards, first aid, operation of equipment, electrical knowledge and troubleshooting, repairing electrical and fluid power equipment, maintaining the equipment, fabricating, supervising, and the engineering aspects of mining.

Associate in Applied Science
Mining Technology - 1509017019
(Offered at BSC, MDC)

General Education:
ENG 101 Writing I ............................................. 3
Quantitative Reasoning course* ......................... (3)
Social/Behavioral Sciences course ...................... 3
GLY 101 Physical Geology AND ............................ 3
GLY 111 Laboratory for Physical Geology OR ............ 1
Natural Sciences .............................................. (4)
Heritage/Humanities ........................................ 3
Subtotal .................................................. 16

*Note: MAT 150 is required for Engineering Operations Track and Supervisors Track.

Technical Core:
Digital Literacy ............................................. 3
MNG 102 Introduction to Mine Engineering and Mining Technology 3
MNG 160 Elements of Underground Mining .................. 3
MNG 170 Elements of Surface Mining ...................... 2
MNG 150 Mining Laws ....................................... 3
BAS 160 Introduction to Business ........................... 3
EFM 100 Personal Financial Management OR ............. 3
BAS 120 Personal Finance OR ................................ (3)
MNG 274 Mine Safety ........................................ 3
MNG 180 Environmental Issues in Mining ................... 3
Subtotal .................................................. 26

Operators Track – 150901702
(Offered at BSC, MDC)

IMT 150 Maintaining Industrial Equipment I .................. 3
IMT 151 Maintaining Industrial Equipment I Lab .......... 2
MNG 161 Elements of Underground Mining Lab .......... 1-3
MNG 171 Elements of Surface Mining Lab .................. 1-3
Technical Electives* ........................................ 11-13
Subtotal .................................................. 18-24
Total Credits ................................................ 60-66

188
### Technical Electives

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**Diploma**

**Underground Mining Repair Technology -1509014019**

### General Education

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**Academic Curricula**

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**Subtotal** 20

**Total Credits** 62

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**Subtotal** 20

**Total Credits** 62

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**Subtotal** 20-23

**Total Credits** 62-65

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**Subtotal** 19-21

**Total Credits** 61-63

**Certificates**

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**Total Credits** 28-35

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**Total Credits** 16-21
Surface Operator - 1509013139
(Offered at BSC, MDC, SEC)

MNG 170 Elements of Surface Mining .................. 2
MNG 171 Elements of Surface Mining Lab ............ 1-3
EFM 100 Personal Financial Management .......... 3
BAS 120 Personal Finance OR ....................... (3)
WPP 200 Workplace Principles ..................... (3)
HEO 125 Special Problems I OR .................... (3)
Technical Elective .................................. (3)
Total Credits 9-11

Surface Supervisor - 1509013099
(Offered at BSC, MDC, SEC)

Digital Literacy .................................. 0-3
Blueprint Reading Course ....................... 2-3
MNG 150 Mining Laws ................................ 3
MNG 190 Mine Emergency Technician OR ........ 3
KHP 190 First Aid & Emergency Care ............ (2)
MNG 274 Mine Safety ................................ 3
BAS 160 Introduction to Business ................ 3
Total Credits 13-18

Surface Field Mechanic - 1509013109
(Offered at BSC, MDC, SEC)

ELT 122 Mechanical Power Transmission Systems ... 3
ELT 265 Applied Fluid Power OR .................... 3
FPX 100 Fluid Power AND ................................ (3)
FPX 101 Fluid Power Lab ................................ (2)
IMT 100 Welding for Maintenance .................. 3
IMT 101 Welding for Maintenance Lab ............ 2
Total Credits 11-13

Surface Technician/Greaser - 1509013119
(Offered at BSC, SEC)

PMX 100 Precision Measurement .................... 3
DIT 103 Preventive Maintenance Lab ............... 2
ELT 122 Mechanical Power Transmission Systems ... 3
Total Credits 8

Mining Technician Assistant I - 1509013019
(Offered at BSC, SEC)

PMX 100 Precision Measurement .................... 3
DIT 103 Preventive Maintenance Lab ............... 2
IMT 100 Welding for Maintenance .................. 3
IMT 101 Welding for Maintenance Lab ............ 2
Total Credits 10

Mining Technician Assistant II - 1509013029
(Offered at BSC, MDC, SEC)

MNG 123 Mining Electricity I .......................... 4
MNG 125 Mining Electricity Lab ........................ 1
ELT 265 Applied Fluid Power OR .................... 3
FPX 100 Fluid Power AND ................................ (3)
FPX 101 Fluid Power Lab ................................ (2)
Total Credits 8-10

Mining Technician I - 1509013039
(Offered at BSC, MDC, SEC)

Digital Literacy .................................. 0-3
MNG 160 Elements of Underground Mining ........ 3
MNG 150 Mining Laws ................................. 3
MNG 286 Roof Control and Ventilation ............ 3
Total Credits 9-12

Mining Technician II - 1509013049
(Offered at BSC, MDC, SEC)

MNG 123 Mining Electricity I .......................... 4
MNG 125 Mining Electricity Lab ........................ 1
MNG 150 Mining Laws ................................ 3
MNG 286 Roof Control and Ventilation ............ 3
MNG 190 Mine Emergency Technician OR .......... 3
KHP 190 First Aid & Emergency Care ............ (2)
IMT 100 Welding for Maintenance .................. 3
IMT 101 Welding for Maintenance Lab ............ 2
Total Credits 18-22

Motorcycle Technology

The Motorcycle Technology Program prepares students for careers in a motorcycle dealership or private business. A core curriculum provides students with a foundation of knowledge applicable to the motorcycle industry.

Associate in Applied Science

Motorcycle Technology - 4706117019
(Offered at BSC)

General Education

ENG 101 Writing I .................................... 3
MAT 110 Applied Math ................................ 3
Heritage/Humanities .................................... 3
Social/Behavioral Sciences .......................... 3
Natural Sciences ....................................... 3
Oral Communications .................................. 3
Subtotal 18

Technical Core

Computer/Digital Literacy ............................. 0-3
MOT 100 Introduction to Motorcycles ............... 3
OST 105 Introduction to Information Systems ....... 3
MOT 120 Motorcycle Sales and Marketing .......... 3
MOT 130 Shop Management .......................... 2
MOT 134 Service Requirements ........................ 2
MOT 244 Parts Management .......................... 2
MOT 260 Capstone ..................................... 4
COE 199 Cooperative Education or ................ 3
COED 198 Practicum .................................. (3)
Subtotal 22-25

Repair Track - 470611701
(Offered at BSC)

FEX 100 Fundamentals of Electricity .................. 3
MOT 142 Basic Engines and Drive Systems .......... 2
MOT 156 Frames and Suspensions .................... 2
MOT 200 Advanced Engines and Drive Systems .... 2
MOT 220 Diagnostics and Troubleshooting ......... 2
MOT 234 Performance Machine and Welding ........ 2
Approved Technical Electives ....................... 9
Subtotal 22

Total Credits (Repair Track) 62-65

Retail Track - 470611702
(Offered at BSC)

BAS 200 Small Business Management ................ 3
ACC 201 Financial Accounting ........................ 3
Approved Technical Electives ....................... 15
Subtotal 21

Total Credits (Retail Track) 61-64
BAS 291 Retail Management
BAS 283 Principles of Management
BAS 267 Introduction to Business Law
ACC 202 Managerial Accounting
IT 132 Web Page Development
Approved Technical Electives Retail Track:
CIS 130 Microcomputer Application .................. 3
IT 132 Web Page Development .................. 3
ACC 202 Managerial Accounting .................. 3
BAS 267 Introduction to Business Law .................. 3
BAS 274 Human Resource Management .................. 3
BAS 283 Principles of Management .................. 3
BAS 291 Retail Management .................. 3

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, SMC)
MST 150 Multi-Skilled Systems Technician .................. 9
Total Credits ............................................ 9

Natural Gas Technology
Construction and Maintenance Technician
This program prepares students for performing job tasks in five functional areas of pipeline construction and maintenance; work related safety, installing and inspecting gas distribution piping, maintenance on gas pipelines, placing pipelines into service and installing and monitoring cathodic protection systems. Classroom instruction and documented related skill performance prepares students to perform job related tasks at the technician level. Persons completing the program are “operator qualified” on related covered tasks according to 49CFR, Part 192, Subpart N.

Leakage and Corrosion Control Technician
This program prepares students for job related tasks in six functional areas of natural gas service; work related safety, installing and maintaining customer services lines and meter and regulator sets, installing gas operated equipment, installing and inspecting gas distribution piping and monitoring cathodic protection systems. Classroom instruction and documented related skill performance prepares students to perform job related tasks at the technician level. Persons completing the program are “operator qualified” on related covered tasks according to 49CFR, Part 192, Subpart N.

Gas Service Technician
This program prepares students for performing job tasks in four functional areas of natural gas leakage and corrosion control; work related safety, investigating and controlling gas leaks, installing cathodic protection systems, and monitoring cathodic protection systems. Classroom instruction and documented related skill performance prepares students to perform job related tasks at the technician level. Persons completing the program are “operator qualified” on related covered tasks according to 49CFR, Part 192, Subpart N.

Measurement and Regulation Technician
This program prepares students for performing job tasks in five functional areas of natural gas measurement and regulation; work related safety, basic gas laws, maintaining gas metering systems, maintaining gas regulation systems, and maintaining recording instruments. Classroom instruction and documented related skill performance prepares students to perform job related tasks at the technician level.
Certificates

Leakage and Corrosion Control Technician - 1509033020
(Offered at SMC, WKC)
NGT 100 Technologies Basic to the Delivery of Natural Fuel Gases .......................... 3
NGT 110 Preventing/Controlling Worksite Incidents .................................................. 3
NGT 130 Maintaining Compliance with 49 Code of Federal Regulations (CFR), Part 192 .......................................................... 1
NGT 140 Pipeline Construction Safety ................................................................. 3
NGT 150 Performing Patrol & Leakage Surveys on Natural Gas Pipeline Facilities ........ 3
NGT 205 Identifying Practices & Procedures Used to Control and Monitor Cathodic Protection Systems ........................................... 2
NGT 210 Troubleshooting Cathodic Protection Rectifiers ......................................... 3
Total Credits 18

Gas Service Technician - 1509033040
(Offered at SMC, WKC)
NGT 100 Technologies Basic to the Delivery of Natural Fuel Gases .......................... 3
NGT 110 Preventing/Controlling Worksite Incidents .................................................. 3
NGT 125 Maintaining Compliance with the National Fuel Gas Code NFPA 54 and ANSI Z223.1 .......................................................... 1
NGT 160 Installing & Maintaining Customer Service Lines and Meter and Regulator Sets ................................................................. 3
NGT 170 Installing Gas Operated Equipment ............................................................ 3
NGT 180 Installing and Inspecting Gas Distribution Piping .................................... 3
NGT 200 Placing Gas Pipelines into Service ............................................................ 3
NGT 205 Identifying Practices & Procedures Used to Control and Monitor Cathodic Protection Systems ........................................... 2
Total Credits 21

Measurement and Regulation Technician - 1509033030
(Offered at SMC, WKC)
NGT 100 Technologies Basic to the Delivery of Natural Fuel Gases .......................... 3
NGT 110 Preventing/Controlling Worksite Incidents .................................................. 3
NGT 130 Maintaining Compliance with 49 Code of Federal Regulations (CFR), Part 192 .......................................................... 1
NGT 140 Pipeline Construction Safety ................................................................. 3
NGT 150 Performing Patrol & Leakage Surveys on Natural Gas Pipeline Facilities ........ 3
NGT 205 Identifying Practices & Procedures Used to Control and Monitor Cathodic Protection Systems ........................................... 2
NGT 220 Identifying Principles & Performing Operations Basic to Gas Measurement ........................................................................... 3
NGT 230 Inspecting & Maintaining Gas Metering Systems .................................... 3
NGT 240 Operating & Maintaining Gas Pressure Regulating Systems, ................................ 3
Total Credits 24

Construction and Maintenance Technician - 1509033010
(Offered at SMC, WKC)
NGT 100 Technologies Basic to the Delivery of Natural Fuel Gases .......................... 3
NGT 110 Preventing/Controlling Worksite Incidents .................................................. 3
NGT 130 Maintaining Compliance with 49 Code of Federal Regulations (CFR), Part 192 .......................................................... 1
NGT 140 Pipeline Construction Safety ................................................................. 3
NGT 180 Installing & Inspecting Gas Distribution Piping .................................... 3
NGT 190 Performing Maintenance on Gas Pipelines ........................................... 3
NGT 200 Placing Gas Pipelines into Service ............................................................ 3
NGT 205 Identifying Practices & Procedures Used to Control and Monitor Cathodic Protection Systems ........................................... 2
Total Credits 21

Nuclear Medicine and Molecular Imaging Technology

The Nuclear Medicine and Molecular Imaging Technology (NMMIT) program prepares the individual to work in the field of Nuclear Medicine and Molecular Imaging. Nuclear Medicine and Molecular Imaging is the medical specialty that utilizes the nuclear properties of radioactive and stable nuclides to make diagnostic evaluation of the anatomic or physiologic conditions of the body and to provide therapy with unsealed radioactive materials. The skills of the nuclear medicine technologist complement those of the nuclear medicine physician and other professionals in the field. Nuclear medicine technologists have responsibilities in the following areas: (a) patient care and monitoring, (b) technical skills related to radiation safety, radiopharmacy, clinical instrumentation, diagnostic and therapeutic procedures (including hybrid imaging and emerging technologies), quality control, and computers, and (c) administrative functions related to supplies and equipment, documentation of operations related to disposition of radioactive materials, quality control data, and patient records.

The NMMIT program is a selective admission program. A student must earn a grade of C or better in the prerequisite and concurrent mathematics and science courses to be admitted to and to remain enrolled in the program. Also, a student must earn a grade of C or better in each of the NMMIT courses to be retained in the program. After graduation from the program, the individual is eligible to write either the Nuclear Medicine Technology Certification Board (NMTCB) or the American Registry of Radiologic Technologists (ARRT) nuclear medicine technology examination to earn credentials. Please see the guidelines for the selective admission requirements to the Nuclear Medicine and Molecular Imaging Technology program.

Documentation of computer literacy as defined by KCTCS is required prior to enrolling in the first NMI course.

Note: Hours Exception (71-73 for the A.A.S.) approved by the KCTCS Board of Regents in December 2010

Associate in Applied Science

Nuclear Medicine and Molecular Imaging Technology - 5109057039
(Offered at BLC)

General Education:
ENG 101 Writing I .................................................................................. 3
ENG 102 Writing II .................................................................................. 3
MAT 150 College Algebra OR ................................................................. 3
MA 109 College Algebra ........................................................................ (3)
CHE 140 Introductory General Chemistry ............................................... 3
CHE 150 Introduction to Organic and Biological Chemistry .................. 3
CHE 155 Introduction to Organic and Biological Chemistry Lab ............ 1
BIO 137 Human Anatomy & Physiology I .............................................. 4
BIO 139 Human Anatomy & Physiology II ............................................. 4
PHY 171 Applied Physics ..................................................................... 3
PHY 172 Physics for Health Sciences .................................................... (2)
Social/Behavioral Sciences .................................................................. 3
Heritage/Humanities ........................................................................... 3
Oral Communications Course ............................................................... 3
Subtotal 35-37

Technical Courses:
NMI 140 Clinical Procedures I ................................................................. 2
NMI 141 Physics and Instrumentation I .................................................... 2
NMI 142 Radiation Biology/Protection .................................................... 1
NMI 150 Clinic I ...................................................................................... 2
Academic Curricula

Nursing

The Associate Degree Nursing program prepares graduates to use their skill and knowledge to fulfill the role of the nurse; enhance human flourishing, demonstrate sound nursing judgment, continually develop professional identity, and possess a spirit of inquiry to improve the quality of patient care. Encompassed within these roles are the core components of context and environment, knowledge and science, personal/professional development, quality and safety, relationship-centered care, and teamwork. These core components are introduced, developed and built upon through the curriculum. Graduates are eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN). The Associate Degree Nursing curriculum is organized around a clearly defined conceptual framework and combines general education and nursing courses. The nursing courses correlate classroom and clinical instruction in a variety of community agencies. *

Acceptance into the Associate Degree Nursing program is based on a selective admissions process. In order to be considered for admission, applicants must comply with college and program admission requirements prior to March 1 for admission to a fall NSG 101 course (July 1 for admission to a spring NSG 101 course).

Progression in the Associate Degree Nursing program is contingent upon achievement of a grade of "C" or better in each biological science, nursing and mathematics course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

CPR requirements must be successfully completed prior to enrolling in the first nursing course and must be kept current throughout the program. Documentation of successful completion of a minimum 75-hour nursing assistant course, or its equivalent, and documentation of computer literacy as defined by KCTCS is required prior to enrolling in the first nursing course.

*Transportation to the community agencies is the responsibility of each student.

Note: The Kentucky Board of Nursing may deny a nursing graduate admission to the NCLEX-RN Exam if an individual has been convicted of a misdemeanor or felony which involves acts that bear directly on the qualifications of the graduate to practice nursing.

The following Associate Degree Nursing programs are accredited by the Accreditation Commission for Education in Nursing 3343 Peachtree Rd. NE, Suite 850, Atlanta, GA 30326, www.acenur.org; telephone: (404) 975-5000: Ashland Community and Technical College, Bluegrass Community and Technical College, Elizabethtown Community and Technical College, Henderson Community College, Hopkinsville Community College, Jefferson Community and Technical College, Madisonville Community College, Somerset Community College, Southeast Kentucky Community and Technical College, West Kentucky Community and Technical College.

Associated in Applied Science

Nursing - 5138017009

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

General Education:

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<thead>
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<th>Title</th>
<th>Credits</th>
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<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I</td>
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<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>BIO 225</td>
<td>Medical Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra</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>Written Communication Courses</td>
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<td>6</td>
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<tr>
<td>Oral Communications Course</td>
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<td>3</td>
</tr>
<tr>
<td>Heritage/ Humanities Course</td>
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</table>

Subtotal 33

Nursing Modular Pathway- 513801704

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

Technical Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>NSG 101</td>
<td>Nursing Practice I</td>
<td>9</td>
</tr>
<tr>
<td>NSG 210</td>
<td>Medical/Surgical Nursing I OR</td>
<td>6</td>
</tr>
<tr>
<td>NSG 197</td>
<td>*LPN – ADN Bridge OR</td>
<td>3</td>
</tr>
<tr>
<td>NSG 199</td>
<td>**Accelerated LPN – ADN Bridge Course</td>
<td>2</td>
</tr>
<tr>
<td>NSG 211</td>
<td>Maternal Newborn Nursing</td>
<td>3</td>
</tr>
<tr>
<td>NSG 212</td>
<td>Behavioral Health Nursing</td>
<td>3</td>
</tr>
<tr>
<td>NSG 213</td>
<td>Pediatric Nursing</td>
<td>3</td>
</tr>
<tr>
<td>NSG 215</td>
<td>Pharmacology I</td>
<td>1</td>
</tr>
<tr>
<td>NSG 220</td>
<td>Medical/Surgical Nursing II</td>
<td>6</td>
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<tr>
<td>NSG 225</td>
<td>Pharmacology II</td>
<td>1</td>
</tr>
<tr>
<td>NSG 230</td>
<td>Medical/Surgical Nursing III</td>
<td>6</td>
</tr>
</tbody>
</table>

Subtotal 38

Total Credits 71

**Taken by Licensed Practical Nurses who meet specific program requirements

***Credit may be awarded to Licensed Practical Nurses who meet specific program requirements.

NOTE: CPR requirements must be successfully completed prior to enrolling in the first nursing course and must be kept current throughout the program. Documentation of successful completion of a minimum 75-hour nursing assistant course, or its equivalent, and documentation of computer/digital literacy as defined by KCTCS is required prior to enrolling in the first nursing course.

Nursing Standard Pathway - 513801705

(Offered at JFC)

Technical Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>NSG 106</td>
<td>Nursing 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</td>
<td>5</td>
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<tr>
<td>NSG 236</td>
<td>(Family Nursing) Nursing Three</td>
<td>9</td>
</tr>
<tr>
<td>NSG 246</td>
<td>Nursing Four</td>
<td>9</td>
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<tr>
<td>NSG 216</td>
<td>Nursing Pharmacology I</td>
<td>1</td>
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<tr>
<td>NSG 226</td>
<td>Nursing Pharmacology II</td>
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</tbody>
</table>

Subtotal 38

Total Credits 71

**Taken by Licensed Practical Nurses who meet specific program requirements

***Credit may be awarded to Licensed Practical Nurses who meet specific program requirements.

NOTE: CPR (BLS for Healthcare Providers) requirements must be successfully completed prior to enrolling in the first nursing course and must be kept current throughout the program. Documentation of successful completion of a minimum 75-hour nursing assistant course, or its equivalent, a letter of good standing status from the Kentucky Nurse Aide Registry, criminal background checks and documentation of computer/digital literacy as defined by KCTCS are required prior to enrolling in the first nursing course.

193
**Nursing Assistant – Advanced**

Provides knowledge and skills for nurse aides to assume the role and responsibility required in a variety of health care settings.

**Certificate**

*Advanced Nursing Assistant - 5139023019 (Offered at ELC, HPC, MHC, OWL, WKC)*

Available Completely Online

- NAA 125 Advanced Nursing Assistant OR ........................................ 6
- NAA 100 Nursing Assistant Skills I AND .................................... (3)
- NAA 115 Nursing Assistant Skills II OR .................................... (3)
- MNA 100 Medicaid Nurse Aide AND ......................................... (3)
- NAA 115 Nursing Assistant Skills II ......................................... (3)
- BIO 135 Basic Anatomy and Physiology with Laboratory OR .... 4
- AHS 109 Introduction to Body Structure and Function OR .......... (4)
- BIO 137 Human Anatomy & Physiology I AND ........................ (4)
- BIO 139 Human Anatomy & Physiology II ................................. (4)
- COM 181 Basic Public Speaking OR ........................................... 3
- COM 252 Introduction to Interpersonal Communication OR ...... (3)
- ENG 101 Writing I OR .............................................................. (3)
- TEC 200 Technical Communications ....................................... (3)
- Computer/Digital Literacy ....................................................... 3

**Total Credits 16-20**

**Nursing – Academic/Career Mobility Program**

The Academic/Career Mobility Program provides a seamless educational option in nursing with two exit points allowing students to choose a career as an LPN or RN. The program is implemented in a shared framework which prepares graduates to use their skill and knowledge to fulfill the role of the nurse: enhance human flourishing, demonstrate sound nursing judgment, continually develop professional identity, and possess a spirit of inquiry to improve the quality of patient care. Encompassed within these roles are the core components of context and environment, knowledge and science, person/professional development, quality and safety, relationship-centered care, and teamwork. These core components are introduced, developed, and built upon through the curriculum; however, distinct parameters have been established that support the PN and RN scopes of nursing practice. The curriculum is structured around a clearly defined organizing framework and provides the foundation for a competency-based approach to nursing education through the utilization of interactive and student-focused learning strategies. Content and performance-based outcomes for the nursing courses are selected, developed, and leveled from simple to complex. Students who successfully complete the first year will receive a diploma qualifying them to apply for licensure as practical nurses. Following successful completion of the second year, students will receive the Associate in Applied Science Degree in Nursing qualifying them to apply for licensure as registered nurses.

Acceptance into the program is based on a selective admissions process. In order to be considered for admission, applicants must comply with college and program admission requirements. Licensed practical nurses who graduated within one year of admission to the program or have practiced at least one full year within the past three years and hold a current unrestricted license for practical nursing will be admitted to the associate degree level.

Proof of active status on the Kentucky Medicaid Nurse Aide Registry or its equivalent is required prior to enrolling in the first nursing course.

CPR certificate for Health Care Providers/Professional Rescuer must be obtained prior to enrolling in the first nursing course and certification must be kept current throughout the program. Documentation of computer literacy as defined by KCTCS is required prior to enrolling in the first nursing course.

Progression in the nursing program is contingent upon achievement of a grade of “C” or better in each biological science, nursing and mathematics course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Note: The Kentucky Board of Nursing may deny a nursing graduate admission to the National Council Licensure Examination for Registered Nurses (NCLEX Exam) if an individual has been convicted of a misdemeanor or felony which involves acts that bear directly on the qualifications of the graduate to practice nursing.

Note: Hours Exception (69-72 for the A.A.S.) approved by the KCTCS Board of Regents in June 2010.

**Associate in Applied Science**

*Academic/Career Mobility Program in Nursing - 5138017049 (Offered at SKY)*

**General Education Courses:**

- BIO 137 Human Anatomy & Physiology I ................................. 4
- BIO 139 Human Anatomy & Physiology II ................................. 4
- BIO 225 Medical Microbiology OR ........................................... 4
- BIO 227 Principles of Microbiology with Laboratory ............... (5)
- MAT 150 College Algebra ....................................................... 3
- PSY 223 Developmental Psychology ....................................... 3
- Written Communication Courses .......................................... 6
- Oral Communications Course .............................................. 3
- **General Education Total 33-34**

**Technical Courses:**

- NRS 101 Nursing Care I AND .................................................. 9
- NRS 102 Nursing Care II OR .................................................. 10
- NRS 200 **LPN to ADN Transition** .......................................... (3)
- NRS 203 Nursing Care III ...................................................... 9
- NRS 204 Nursing Care IV ...................................................... 10
- **Subtotal 38**

**Total CREDITS: 71-72**

**Diploma**

*Academic/Career Mobility Program in Nursing – Practical Nursing - 5139014009 (Offered at SKY)*

**General Education Courses:**

- BIO 137 Human Anatomy & Physiology I ................................. 4
- BIO 139 Human Anatomy & Physiology II ................................. 4
- ENG 101 Writing I ................................................................. 3
- MAT 150 College Algebra ....................................................... 3
- PSY 110 General Psychology .................................................. 3
- PSY 223 Developmental Psychology ....................................... 3
- Oral Communications .......................................................... 3
- **General Education Subtotal ........................................... 23**
Nursing - Integrated Nursing

The Integrated Nursing Program provides a seamless educational pathway in nursing which allows students to choose multiple career options. The Integrated Nursing Program is designed to deliver nursing education to a cohort group of students with the opportunity to complete the Practical Nursing (PN) or Associate Degree Nursing level. The curriculum is structured around a clearly defined organizing framework and provides the foundation for a competency-based approach to nursing education through the utilization of interactive and student-focused learning strategies. Content and performance-based outcomes for the nursing courses are selected, developed, and leveled from simple to complex. Classroom instruction in theory and basic nursing skills is provided in various delivery methods. Under the guidance of program faculty, students gain valuable experience in the care of patients across the lifespan in a variety of healthcare settings and/or community agencies including hospitals, long-term care facilities, clinics and child care centers.

After two and one-half semesters the student has the option to exit as a PN by enrolling in the PN exit course. This option prepares graduates to function within the legal scope of practice under the supervision of a registered nurse or physician. The practical nursing level focuses on the maintenance of health and prevention of illness, the observation and nursing care of individuals experiencing changes in their health processes, and the evaluation and health practices of patients. Students who choose practical nursing as a career can complete the components in three semesters and are eligible to apply for licensure as a practical nurse. Graduates are eligible to take the National Council Licensure Examination for Practical Nurses (NCLEX-PN).

The Associate Degree Nursing option prepares graduates to provide and manage patient care and to become members within the discipline of nursing. The associate nursing level focuses on the application of a specialized body of knowledge and skills obtained from social and biological sciences in providing evidenced-based, clinically competent care to individuals across the life span. Students choosing the Associate in Applied Science degree in Nursing can complete the components in four semesters and are eligible to apply for licensure as a registered nurse. Graduates are eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN).

Acceptance into the Integrated Nursing Program is based upon a selective admissions process. In order to be considered for admission, applicants must comply with college and program admission requirements. Proof of active status on the Kentucky Medicaid Nurse Aide Registry is required prior to enrolling in the first integrated nursing course. Licensed practical nurses may receive credit for the first and second semesters of nursing courses based upon specific college offerings, work experience, and active Kentucky or compact state licensure status.

Progression within the Integrated Nursing Program is contingent upon achievement of a grade of "C" or better in all program course requirements and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

If more than three years have elapsed since initial enrollment in any nursing program, an applicant must repeat all nursing courses.

A nursing graduate with a misdemeanor or felony conviction may be denied permission to access the NCLEX by the Kentucky Board of Nursing.

The Madisonville Community College Associate Degree Nursing program is currently accredited by:


Note: Hours Exception (69-72 for the A.A.S.) approved by the KCTCS Board of Regents in June 2010.

Associate in Applied Science

Nursing - 5138017069

(Offered at HZC, MDC)

General Education:

<table>
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<tr>
<th>Course</th>
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<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory</td>
<td>4</td>
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<tr>
<td>PSY 110</td>
<td>General Psychology</td>
<td>3</td>
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<tr>
<td>COM 181</td>
<td>Basic Public Speaking</td>
<td>3</td>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
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<td>ENG 102</td>
<td>Writing II</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra</td>
<td>3</td>
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<tr>
<td>PSY 223</td>
<td>General Psychology</td>
<td>3 (may be substituted for AHS 100.)*</td>
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<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology</td>
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| OTS 105 | Introduction to Information Systems OR | 3 *
| NIP 102 | Introduction to Pharmacology | 3 |
| NIP 116 | Fundamentals of Nursing | 3 |
| AHS 100 | Human Growth and Development** | 2 |
| NIP 120 | Maternal Child Nursing Care | 3 |
| NIP 128 | Medical Surgical Alteration | 3 |
| NIP 212 | Advanced Medical Surgical Nursing | 10 |
| NIP 215 | Leadership and Specialty Practice | 7 |
| Subtotal | | 45-48 |

Total Credits 67-70

NOTE: CPR requirements must be successfully completed prior to enrolling in the first nursing course and must be kept current throughout the program. Documentation of successful completion of a minimum 75-hour nursing assistant course, or its equivalent, is required prior to enrolling in the first nursing course. BIO 135 and BIO 139 may be substituted for BIO 135.

Diploma

Practical Nursing - 5139014049

(Offered at HZC, MDC)

General Education:

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<td>PSY 110</td>
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<td>COM 181</td>
<td>Basic Public Speaking</td>
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<td>ENG 101</td>
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<td>NIP 102</td>
<td>Introduction to Pharmacology</td>
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<td>NIP 116</td>
<td>Fundamentals of Nursing</td>
<td>3</td>
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<td>AHS 100</td>
<td>Human Growth and Development **</td>
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<td>NIP 120</td>
<td>Maternal Child Nursing Care</td>
<td>3</td>
</tr>
<tr>
<td>NIP 128</td>
<td>Medical Surgical Alteration</td>
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</tr>
<tr>
<td>NIP 212</td>
<td>Advanced Medical Surgical Nursing</td>
<td>10</td>
</tr>
<tr>
<td>NIP 215</td>
<td>Leadership and Specialty Practice</td>
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Technical or Support Courses:

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<th>Course Title</th>
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<tbody>
<tr>
<td>CIT 105</td>
<td>Introduction to Computers OR</td>
<td></td>
</tr>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems OR</td>
<td></td>
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<tr>
<td>NIP 102</td>
<td>Introduction to Pharmacology</td>
<td>3</td>
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<tr>
<td>NIP 116</td>
<td>Fundamentals of Nursing</td>
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<tr>
<td>AHS 100</td>
<td>Human Growth and Development**</td>
<td>2</td>
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<tr>
<td>NIP 120</td>
<td>Maternal Child Nursing Care</td>
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<tr>
<td>NIP 128</td>
<td>Medical Surgical Alteration</td>
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<tr>
<td>NIP 140</td>
<td>Practical Nursing Role Transition</td>
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<td></td>
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</table>

Total Credits: 47-50

Note: CPR requirements must be successfully completed prior to enrolling in the first nursing course and must be kept current throughout the program. Documentation of successful completion of a minimum 75-hour nursing assistant course, or its equivalent, is required prior to enrolling in the first nursing course.

*Note: The Kentucky Board of Nursing (KBN) may deny a nursing graduate admission to the NCLEX-PN Exam if an individual has been convicted of a misdemeanor or felony that involves acts that bear directly on the qualifications of the graduate to practice nursing.

Diploma

Practical Nurse - 5139014039

(Offered at ASC, BLC, BSC, ELC, HEC, HPC, JFC, MYC, SKY, SMC, WKC)

Practical Nurse Pathway 1 – Traditional - 513901401

(Offered at BLC, ELC, JFC, SKY, SMC)

General Education:

<table>
<thead>
<tr>
<th>Area 1</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td></td>
<td>TEC 200</td>
<td>Technical Communications OR</td>
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</tr>
<tr>
<td></td>
<td>ENG 101</td>
<td>Writing I OR</td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
<td>(3)</td>
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Area 2 =

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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy &amp; Physiology with Laboratory OR</td>
<td>4</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I AND</td>
<td>(4)</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
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Subtotal 7-11

Technical Core:

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<th>Course Title</th>
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<tbody>
<tr>
<td>AHS 100</td>
<td>Human Growth &amp; Development OR</td>
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</tr>
<tr>
<td>PSY 110</td>
<td>General Psychology AND</td>
<td>(3)</td>
</tr>
<tr>
<td>PSY 223</td>
<td>Developmental Psychology</td>
<td>(3)</td>
</tr>
<tr>
<td>NPN 100</td>
<td>Introduction to Nursing &amp; Health Care System AND</td>
<td>2</td>
</tr>
<tr>
<td>NPN 105</td>
<td>Development of Care Giver Role AND</td>
<td>6</td>
</tr>
<tr>
<td>NPN 110</td>
<td>Pharmacology I OR</td>
<td>2</td>
</tr>
<tr>
<td>NPN 115</td>
<td>Practical Nursing Bridge Course</td>
<td>(6)</td>
</tr>
<tr>
<td>NPN 125</td>
<td>Mental Health</td>
<td>3</td>
</tr>
<tr>
<td>NPN 130</td>
<td>Pharmacology II</td>
<td>3</td>
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<tr>
<td>NPN 135</td>
<td>Introduction to Health Deviations</td>
<td>6</td>
</tr>
<tr>
<td>NPN 200</td>
<td>Med Surg I</td>
<td>5</td>
</tr>
<tr>
<td>NPN 201</td>
<td>Child Bearing Family</td>
<td>3</td>
</tr>
<tr>
<td>NPN 205</td>
<td>Med Surg II</td>
<td>5</td>
</tr>
<tr>
<td>NPN 210</td>
<td>Clinical Practicum</td>
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<tr>
<td>NPN 215</td>
<td>Nursing Trends &amp; Issues</td>
<td>1</td>
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Subtotal 38-46

Total Credits: 45-57

*Taken by advanced nursing assistant and allied health graduates.

Practical Nurse – Pathway 2 – Traditional Modified - 513901402

(Offered at ASC, BSC, HEC, HPC, MYC, WKC)

General Education:

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<th>Area 1</th>
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<th>Course Title</th>
<th>Credits</th>
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<tr>
<td></td>
<td>TEC 200</td>
<td>Technical Communications OR</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ENG 101</td>
<td>Writing I OR</td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
<td>(3)</td>
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Area 2 =

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy &amp; Physiology with Laboratory OR</td>
<td>4</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I AND</td>
<td>(4)</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
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Subtotal 7-11

Technical Core:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>AHS 100</td>
<td>Human Growth &amp; Development OR</td>
<td>2</td>
</tr>
<tr>
<td>PSY 110</td>
<td>General Psychology AND</td>
<td>(3)</td>
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<tr>
<td>PSY 223</td>
<td>Developmental Psychology</td>
<td>(3)</td>
</tr>
<tr>
<td>AHS 120</td>
<td>Medical Terminology OR</td>
<td>1</td>
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</table>
Academic Curricula

Occupational Therapy Assistant

The Occupational Therapy Assistant Program is designed to provide a quality educational experience that will train prospective professionals in the art and science of promoting and maintaining the holistic health and wellness of people, organizations, and populations through engagement in occupation. Graduates will be able to perform/engage as entry level professionals under the supervision of an Occupational Therapist (OT). Graduates will develop skills necessary for employment as Certified Occupational Therapy Assistants, thereby meeting the students’ individual needs and the expressed health-care needs of the local and extended communities served by the Colleges. The program strives to fill a growing need for professionals able to contribute to all facets of occupational therapy, from community-based programs to client-centered intervention. The program promotes the value and professional importance of life-long learning.

A basic background in natural sciences, mathematics, communication, and behavioral sciences undergirds the specialized course work. Specialized course work prepares students for the certification examination they will take to become Certified Occupational Therapy Assistants (COTA). Employment may be in hospitals, rehabilitation facilities, nursing homes, clinics, and other health care facilities, as well as within pediatric, community, or educational settings.

Acceptance into the OTA program is based on a selective admission process. In order to be considered for admission, applicants must comply with college and program admissions requirements. Students enrolled in the OTA program must achieve a minimum grade of a “C” in each OTA course and prerequisite courses.

CPR requirement must be successfully completed prior to enrolling in the first semester of OTA program. The CPR course must be Professional or Healthcare Provider.

Background check and drug screen prior to admission is required by all students, and students with a misdemeanor or felony conviction may be denied permission to access fieldwork sites.

Students will be responsible for their own transportation for fieldwork.

Documentation of computer literacy as defined by KCTCS is required prior to enrolling in the first OTA course.

All prerequisite courses must be complete before a student is admitted in the OTA program.

The Occupational Therapy Assistant Program is accredited by the Accreditation Council on Occupational Therapy Education (ACOTE), of the American Occupational Therapy Association (AOTA), 4720 Montgomery Lane, Suite 200 Bethesda, MD 20814-3449 Phone number: (301) 652-(AOTA). www.acotonline.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 examination, 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.

Certificates

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

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

Total Credits

Recommended Electives:
FHM 100 Dosage Calculations .................................................... (2)
MAT 110 Applied Math .............................................................. (3)
AHS 105 Introductions to Health Occupations ........................... (3)
AHS 130 Infection Control ........................................................ (2)
NSG 299 Selected Topics in Nursing: (Topic) ......................... (1-4)

*Taken by advanced nursing assistant and allied health graduates.

Practical Nurse – Pathway 3 – Modular - 513901403

General Education:

Area 1 =
ENG 101 Writing I ................................................................. 3

Area 2 =
BIO 137 Human Anatomy & Physiology I ....................... 4
BIO 139 Human Anatomy & Physiology II .................... 4
MAT 110 Applied Mathematics ............................................. 3
PSY 110 General Psychology ................................................ 3
Subtotal 17

Technical Core:
PSY 223 Developmental Psychology ..................................... 3
AHS 115 Medical Terminology OR ........................................... 3
CLA 131 Medical Terminology from Greek and Latin .......... (3)
NPN 106 Fundamentals of Nursing Care .............................. 6
NPN 108 Pharmacology in Nursing ....................................... 6
NPN 125 Mental Health .......................................................... 3
NPN 140 Nursing Care I .......................................................... 3
NPN 201 Child Bearing Family .............................................. 3
NPN 208 Nursing Care II ....................................................... 10
NPN 210 Clinical Practicum .................................................. 4
NPN 215 Nursing Trends & Issues ......................................... 1
Subtotal 39

Total Credits 56

AHS 115 Medical Terminology OR ......................... (3)
CL A 131 Medical Terminology from Greek and Latin OR .......................... (3)
MIT 103 Medical Office Terminology .................................. 3
NPN 101 Nursing Fundamentals AND .................................... 6
NPN 111 Pharmacology OR .................................................... 3
NPN 115 *Practical Nursing Bridge Course ......................... (6)
NPN 125 Mental Health .......................................................... 3
NPN 135 Introduction to Health Deviations ....................... 6
NPN 201 Child Bearing Family .............................................. 3
NPN 202 Med-Surg I Alterations ........................................... 6
NPN 206 Med-Surg II Alterations ......................................... 6
NPN 210 Clinical Practicum .................................................. 4
NPN 215 Nursing Trends & Issues ......................................... 1
Subtotal 38-47

Technical Core:
PSY 223 Developmental Psychology ..................................... 3
AHS 115 Medical Terminology OR ........................................... 3
CLA 131 Medical Terminology from Greek and Latin .......... (3)
NPN 106 Fundamentals of Nursing Care .............................. 6
NPN 108 Pharmacology in Nursing ....................................... 6
NPN 125 Mental Health .......................................................... 3
NPN 140 Nursing Care I .......................................................... 3
NPN 201 Child Bearing Family .............................................. 3
NPN 208 Nursing Care II ....................................................... 10
NPN 210 Clinical Practicum .................................................. 4
NPN 215 Nursing Trends & Issues ......................................... 1
Subtotal 39

Total Credits 45-58
**Associate in Applied Science**

**Occupational Therapy Assistant - 5108037009**

*(Offered at JFC, MDC)*

**General Education Core:**

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<tr>
<td>ENG 101 Writing I</td>
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<td>PSY 110 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 223 Developmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>COM 181 Basic Public Speaking OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252 Introduction to Interpersonal Communication</td>
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<td><strong>Total</strong></td>
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* *MCC recommends REL 130 to fulfill the Heritage/Humanities requirement.*

**Pathway # 1 - 510803701**

*(Offered at MDC)*

**Additional General Education (MCC Only):**

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<td>4</td>
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<tr>
<td>BIO 139 Human Anatomy and Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>MAT 110 Applied Mathematics OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 150 College Algebra</td>
<td>3</td>
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**Technical Core:**

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<tbody>
<tr>
<td>OTA 101 Introduction to Occupational Therapy</td>
<td>3</td>
</tr>
<tr>
<td>OTA 126 Level IA Fieldwork</td>
<td>1</td>
</tr>
<tr>
<td>OTA 146 Occupational Therapy in Mental Health</td>
<td>3</td>
</tr>
<tr>
<td>OTA 136 Physical Dysfunction</td>
<td>4</td>
</tr>
<tr>
<td>OTA 226 Level II Fieldwork</td>
<td>1</td>
</tr>
<tr>
<td>OTA 246 Pediatric Issues in Occupation Therapy</td>
<td>3</td>
</tr>
<tr>
<td>OTA 256 Elder Issues in Occupational Therapy</td>
<td>2</td>
</tr>
<tr>
<td>OTA 206 Community Practice</td>
<td>2</td>
</tr>
<tr>
<td>OTA 236 Professional Transitions and Management</td>
<td>2</td>
</tr>
<tr>
<td>OTA 267 Level III Fieldwork</td>
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<td>OTA 277 Level IV Fieldwork</td>
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**Additional Technical Courses (MCC only):**

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<tbody>
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<td>OTA 115 Skills and Interventions I</td>
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<tr>
<td>OTA 125 Assistive Technology and Documentation</td>
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<td>OTA 225 Skills and Interventions II</td>
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<tr>
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**Alternate Pathway #1 for MCC/Total Credits**

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<td><strong>Total Additional Technical Credit</strong></td>
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**Pathway #2 - 510803702**

*(Offered at JFC)*

**General Education Core:**

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<tbody>
<tr>
<td>ENG 101 Writing I</td>
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</tr>
<tr>
<td>PSY 110 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 223 Developmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>COM 181 Basic Public Speaking OR</td>
<td>3</td>
</tr>
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<td>COM 252 Introduction to Interpersonal Communication</td>
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**Additional General Education (JCTC Only):**

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<tbody>
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<tr>
<td>BIO 139 Human Anatomy and Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>MAT 110 Applied Mathematics OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 150 College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>SOC 101 Introduction to Sociology</td>
<td>3</td>
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<td>ENG 102 Writing II</td>
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**Technical Core:**

<table>
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<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>OTA 101 Introduction to Occupational Therapy</td>
<td>3</td>
</tr>
<tr>
<td>OTA 126 Level IA Fieldwork</td>
<td>1</td>
</tr>
<tr>
<td>OTA 146 Occupational Therapy in Mental Health</td>
<td>3</td>
</tr>
<tr>
<td>OTA 136 Physical Dysfunction</td>
<td>4</td>
</tr>
<tr>
<td>OTA 226 Level II Fieldwork</td>
<td>1</td>
</tr>
<tr>
<td>OTA 246 Pediatric Issues in Occupation Therapy</td>
<td>3</td>
</tr>
<tr>
<td>OTA 256 Elder Issues in Occupational Therapy</td>
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</tr>
<tr>
<td>OTA 206 Community Practice</td>
<td>2</td>
</tr>
<tr>
<td>OTA 236 Professional Transitions and Management</td>
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<tr>
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**Additional Technical Courses (JCTC only):**

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<tbody>
<tr>
<td>OTA 116 Media Principles &amp; Procedures I</td>
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</tr>
<tr>
<td>OTA 216 Media Principles &amp; Procedures II</td>
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<tr>
<td><strong>Recommended Additional Technical Courses (JFC only):</strong></td>
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</tr>
<tr>
<td>OTA 286 Clinical Seminar</td>
<td>2</td>
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<td><strong>Subtotal</strong></td>
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**Alternate Pathway for JCTC/Total Credits**

<table>
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<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td><strong>OTA 286 Clinical Seminar</strong></td>
<td><strong>2</strong></td>
</tr>
<tr>
<td><strong>Total Additional Technical Credit</strong></td>
<td><strong>4</strong></td>
</tr>
</tbody>
</table>

**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. The program is a study of the practice of law, with an emphasis on the preparation of legal documents. Paralegal Technology is a program of study designed specifically for immediate employment preparation. Progression in the Paralegal Technology program is contingent upon achievement of a grade of “C” or better in each paralegal technical course.

The curriculum is based on national standards developed by the American Bar Association and the National Association of Legal Assistants. The curriculum includes courses in legal writing, research, and computer skills.

Industry standards are based on 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.

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.

The Associate in Applied Science degree received upon completion of this concentration is not designed for transfer to a senior college or university. It is designed for immediate employment preparation.

+Students should contact the senior college or university of their choosing to determine what, if any, courses will be accepted as transfer credits.

**Paralegal Technology - 2203027019**

*(Offered at MDC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENG 101 Writing I</td>
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</tr>
<tr>
<td>PSY 110 General Psychology</td>
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<td>PSY 223 Developmental Psychology</td>
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<tr>
<td>COM 181 Basic Public Speaking OR</td>
<td>3</td>
</tr>
<tr>
<td>SOC 101 Introduction to Sociology</td>
<td>3</td>
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<tr>
<td>POL 101 American Government</td>
<td>3</td>
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<td>COM 181 Basic Public Speaking</td>
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</tbody>
</table>

**Associate in Applied Science**
Technical Support Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>Computer/Digital Literacy Course</td>
<td>3</td>
</tr>
<tr>
<td>CTT 130 Productivity Software</td>
<td>3</td>
</tr>
<tr>
<td>Criminal Justice Elective Course*</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
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Technical Courses:

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>PGL 111 Legal Systems and Terminology</td>
<td>3</td>
</tr>
<tr>
<td>PGL 112 Legal Research</td>
<td>3</td>
</tr>
<tr>
<td>PGL 113 Law Office Management</td>
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</tr>
<tr>
<td>PGL 211 Family Law</td>
<td>3</td>
</tr>
<tr>
<td>PGL 212 Legal Writing</td>
<td>3</td>
</tr>
<tr>
<td>PGL 221 Wills and Estates</td>
<td>3</td>
</tr>
<tr>
<td>PGL 213 Civil Litigation I</td>
<td>3</td>
</tr>
<tr>
<td>PGL 214 Real Property I</td>
<td>3</td>
</tr>
<tr>
<td>PGL 223 Civil Litigation II</td>
<td>3</td>
</tr>
<tr>
<td>PGL 224 Real Property II</td>
<td>3</td>
</tr>
<tr>
<td>PGL 231 Torts</td>
<td>3</td>
</tr>
<tr>
<td>PGL 233 Ethics</td>
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</tr>
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</tr>
<tr>
<td><strong>Total</strong></td>
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</table>

*PSY 110 (General Psychology) OR SOC 101 (Introduction to Sociology) recommended.

**CRJ 100 (Introduction to Criminal Justice) OR CRJ 216 (Criminal Law) recommended.

Certificate

Paralegal Technology – 2203023019

(Offered at MDC, SMC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENG 101 Writing I</td>
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</tr>
<tr>
<td>CTT 130 Productivity Software</td>
<td>3</td>
</tr>
<tr>
<td>PGL 111 Legal Systems and Terminology</td>
<td>3</td>
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<tr>
<td>PGL 112 Legal Research</td>
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<tr>
<td>PGL 211 Family Law</td>
<td>3</td>
</tr>
<tr>
<td>PGL 212 Legal Writing</td>
<td>3</td>
</tr>
<tr>
<td>PGL 213 Civil Litigation I</td>
<td>3</td>
</tr>
<tr>
<td>PGL 221 Wills and Estates</td>
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<td>PGL 223 Civil Litigation II</td>
<td>3</td>
</tr>
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<td>PGL 224 Real Property II</td>
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<td>PGL 231 Torts</td>
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<td><strong>Total</strong></td>
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</table>

Pharmacy Technology

The pharmacy technician performs technical functions under the direction of a Registered Pharmacist; including prescription preparation, inventory, repackaging, and compounding. The essential elements of this program include the history of pharmacy, pharmacy law, medical terminolgy, drug classification and prescription preparation. Laboratory experience and an externship under the supervision of a licensed pharmacist are required components of the program.

Progression in the Pharmacy Technician program is contingent upon achievement of a grade of “C” or above in each required course and maintenance of a 2.0 cumulative grade-point average or above (on a 4.0 scale).

Diploma

Pharmacy Technician II - 5108054029

(Offered at ASC, JFC, SMC)

General Education:

**Area 1 =**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 181</td>
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</tr>
<tr>
<td>COM 252</td>
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<td><strong>Total</strong></td>
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**Area 2 =**

<table>
<thead>
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<tr>
<td>BIO 130</td>
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</tr>
<tr>
<td>BIO 135</td>
<td></td>
</tr>
<tr>
<td>BIO 137</td>
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<td>BIO 139</td>
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</tr>
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</table>

**Additional Suggested Courses (Not Required):**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>AHS 100 – Human Growth and Development</td>
<td>2</td>
</tr>
<tr>
<td>AHS 130 – Infection Control</td>
<td>2</td>
</tr>
<tr>
<td>AHS 201 – Management Principles for Allied Health Providers</td>
<td>3</td>
</tr>
<tr>
<td>AHS 203 – Diversity in Health Care</td>
<td>3</td>
</tr>
<tr>
<td>BAS 160 – Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>KHP 190 – First Aid and Emergency Care</td>
<td>2</td>
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</table>

**Total Credits** 34-49

Certificates

Pharmacy Technician I - 5108053029

(Offered at ASC, GTW, HPC, JFC, OWC, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 181</td>
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</tr>
<tr>
<td>COM 252</td>
<td></td>
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<tr>
<td><strong>Total</strong></td>
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</table>

Retail Pharmacy Technician - 5108053039

(Offered at ASC, GTW, HPC, JFC, SMC)

<table>
<thead>
<tr>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>COM 181</td>
<td></td>
</tr>
<tr>
<td>COM 252</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
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</table>

**Total Credits** 21-24

*COM 101 may be used in certificates. If taken in the diploma, an additional three (3) credits will be needed to meet Area 1 requirements.

**PHA 200 and PHA 205 may substitute for PHA 104 but PHA 104 will not substitute for PHA 200 and PHA 205.
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 HZC, JFC, MDC, SEC, SMC, WKC)

### Pathway 1 - 510806703
(Offered at HZC, JFC, SEC, SMC, WKC)

#### 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>BIO 137</td>
<td>Human Anatomy and Physiology I</td>
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<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>
<td>3</td>
</tr>
<tr>
<td>PSY 223</td>
<td>Developmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Oral Communications</td>
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#### Technical Courses:

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<tbody>
<tr>
<td>PTA 101</td>
<td>Orientation to Physical Therapy Practice</td>
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</tr>
<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>
<tr>
<td>PTA 160</td>
<td>Medical and Surgical Conditions in Physical Therapy</td>
<td>3</td>
</tr>
<tr>
<td>PTA 170</td>
<td>Clinical Practicum I</td>
<td>1</td>
</tr>
<tr>
<td>PTA 200</td>
<td>Modalities and Procedures in Physical Therapy</td>
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<tr>
<td>PTA 220</td>
<td>Physical Therapy Principles and Procedures</td>
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<tr>
<td>PTA 240</td>
<td>Clinical Practicum II</td>
<td>2</td>
</tr>
<tr>
<td>PTA 250</td>
<td>Neurological Rehabilitation in Physical Therapy</td>
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</tr>
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<td>PTA 260</td>
<td>Seminar in Physical Therapy</td>
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<td>PTA 280</td>
<td>Clinical Practicum III</td>
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### Technical Support Courses:

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<tbody>
<tr>
<td>AHS 105</td>
<td>Introduction to Allied Health Occupations</td>
<td>3</td>
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<tr>
<td><strong>Subtotal</strong></td>
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</table>

### Total Credits (Pathway 1) 64-67

## Plastics Processing

### Certificate

### Plastics Processing - 1506073049
(Offered at MYC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ITE 233</td>
<td>Statistical Process Control</td>
<td>3</td>
</tr>
<tr>
<td>ELT 107</td>
<td>Computer Applications for Technicians</td>
<td>4</td>
</tr>
<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>
<td>4</td>
</tr>
<tr>
<td>PL 261</td>
<td>Plastics Extrusion</td>
<td>(4)</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
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<td><strong>22</strong></td>
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</table>

The Plastics Processing certificate will prepare students for an entry-level position in plastics processing companies.
Plumbing Technology

Installing water supply and waste disposal systems in residential, commercial, and highly complex industrial sites is the focus of the plumbing program. In addition to practical experiences, instruction is given in laws and codes, blueprint reading, drawing, special equipment and other related areas.

Progression in the Plumbing technology program is contingent upon achievement of a grade of "C" or better in each PLB and BRX course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Associate in Applied Science

Plumbing Technology - 4605037019
(Offered at ELC)

General Education:
ENG 101 Writing I ........................................... 3
Quantitative Reasoning .................................. 3
Social/Behavioral Sciences ............................ 3
Heritage/Humanities .................................... 3
Natural Sciences ......................................... 3
Oral Communications .................................. 3
Subtotal 18

Technical Courses:
Computer/Digital Literacy ............................. 3
PLB 150 Plumbing, Introduction to the Trade AND 3
PLB 151 Basic Plumbing Skills OR 3
PLB 100 Basic Theory of Plumbing AND ....... (3)
PLB 105 Plumbing Principles ............................ (3)
PLB 160 Plumbing Systems, DWV & Water ...... 3
PLB 161 Rough-In of Plumbing Fixtures .......... 2
PLB 260 Service AND .................................... 2
PLB 261 Advanced Plumbing Lab OR .............. 2
PLB 265 Valve & Faucet Repairs AND ............. (1)
PLB 267 Water Heater Service & Replacement AND (1)
PLB 269 Sewer & Drain Cleaning .................. (1)
PLB 262 Back Flow Prevention ......................... 3
PLB 270 License Preparation for Journeyman Exam OR 3
PLB 298 Plumbing Practice/Repairs & Maintenance OR 4
PLB 299 Plumbing Cooperative Education .... (4)
BRX 220 Blueprint Reading for Construction .... 3
EFM 100 Personal Financial Management OR 3
BAS 120 Personal Finance ................................ (3)
WPP 200 Workplace Principles OR ................ 3
BAS 250 Business Employability Seminar .......... (1)
ISX 101 Industrial Safety ................................ 3
Subtotal 39-45
Total 45 - 51

Certificates

Certified Backflow Tester* - 4605033079
(Offered at BSC, ELC, JFC, MYC)

PLB 262 Backflow Prevention ......................... 3
Total 3

*Requires that the graduate pass a written test with 80% accuracy and a 3-part performance test

Finish Plumber - 4605033069
(Offered at BSC, ELC, JFC, MYC)

PLB 150 Plumbing, Introduction to the Trade AND 3
PLB 151 Basic Plumbing Skills OR 3
PLB 100 Basic Theory of Plumbing AND .......... (3)
PLB 105 Plumbing Principles ............................ (3)
PLB 250 Plumbing Appliances & Fixtures .......... 3
PLB 251 Pumps & Water Heaters .................... 2
Electives (Technical Core) ............................ 2
Total 17

Maintenance Plumber - 4605033049
(Offered at BSC, ELC, JFC, MYC)

PLB 150 Plumbing, Introduction to the Trade AND 3
PLB 151 Basic Plumbing Skills OR 3
PLB 100 Basic Theory of Plumbing AND .......... (3)
PLB 105 Plumbing Principles ............................ (3)
PLB 115 Plumbing Applications ....................... 4
ISX 101 Industrial Safety ................................ 3
ISX 100 Industrial Safety ................................ (3)
Total 13

1st Year Plumber Mechanic - 4605033109
(Offered at BSC, ELC, JFC, MYC)

PLB 150 Plumbing, Introduction to the Trade AND 3
PLB 151 Basic Plumbing Skills OR 3
PLB 100 Basic Theory of Plumbing AND .......... (3)
PLB 105 Plumbing Principles ............................ (3)

Diploma

Plumber Mechanic - 4605034019
(Offered at ELC, JFC, MYC)

General Education:
Area 1 = Written Communication, Oral Communications, or Heritage/Humanities 3
Area 2 = Quantitative Reasoning ............................................. 3
Subtotal 6

Technical Courses:
Computer/Digital Literacy course or demonstrated competency .......................... 0-3
PLB 150 Plumbing, Introduction to the Trade AND ............................... 3
PLB 151 Basic Plumbing Skills OR .............................................. 3
PLB 100 Basic Theory of Plumbing AND .................................... (3)
PLB 105 Plumbing Principles .................................................. (3)
PLB 160 Plumbing Systems, DWV & Water ................................ 3
PLB 161 Rough-In of Plumbing Fixtures ...................................... 2
PLB 260 Service AND ........................................................... 2
PLB 261 Advanced Plumbing Lab OR ................................. 2
PLB 265 Valve & Faucet Repairs AND ...................................... (1)
PLB 267 Water Heater Service & Replacement AND ........... (1)
PLB 269 Sewer & Drain Cleaning .......................................... (1)
PLB 262 Back Flow Prevention ............................................... 3
PLB 270 License Preparation for Journeyman Exam OR ........ 3
PLB 298 Plumbing Practice/Repairs & Maintenance OR ........ 4
PLB 299 Plumbing Cooperative Education ........................ (4)
BRX 220 Blueprint Reading for Construction .................... 3
EFM 100 Personal Financial Management OR ............... 3
BAS 120 Personal Finance ....................................................... (3)
WPP 200 Workplace Principles OR .............................. 3
BAS 250 Business Employability Seminar .......... (1)
ISX 101 Industrial Safety .................................................. 3
ISX 100 Industrial Safety .................................................. (3)
Subtotal 39-45
Total 45 - 51

Certificates

Certified Backflow Tester* - 4605033079
(Offered at BSC, ELC, JFC, MYC)

PLB 262 Backflow Prevention ................................................ 3
Total 3

*Requires that the graduate pass a written test with 80% accuracy and a 3-part performance test

Finish Plumber - 4605033069
(Offered at BSC, ELC, JFC, MYC)

PLB 150 Plumbing, Introduction to the Trade AND ............................... 3
PLB 151 Basic Plumbing Skills OR .............................................. 3
PLB 100 Basic Theory of Plumbing AND .................................... (3)
PLB 105 Plumbing Principles .................................................. (3)
PLB 250 Plumbing Appliances & Fixtures .................... 3
PLB 251 Pumps & Water Heaters ............................................ 2
Total 17

Maintenance Plumber - 4605033049
(Offered at BSC, ELC, JFC, MYC)

PLB 150 Plumbing, Introduction to the Trade AND ............................... 3
PLB 151 Basic Plumbing Skills OR .............................................. 3
PLB 100 Basic Theory of Plumbing AND .................................... (3)
PLB 105 Plumbing Principles .................................................. (3)
PLB 115 Plumbing Applications ............................................ 4
ISX 101 Industrial Safety .................................................. 3
ISX 100 Industrial Safety .................................................. (3)
Total 13

1st Year Plumber Mechanic - 4605033109
(Offered at BSC, ELC, JFC, MYC)

PLB 150 Plumbing, Introduction to the Trade AND ............................... 3
PLB 151 Basic Plumbing Skills OR .............................................. 3
PLB 100 Basic Theory of Plumbing AND .................................... (3)
PLB 105 Plumbing Principles .................................................. (3)
2nd Year Plumber Mechanic* - 4605033119
(Offered at BSC, ELC, JFC, MYC)

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<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>
<td>2</td>
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</tbody>
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Total 16

Service & Repair Plumber - 4605033089
(Offered at ELC, JFC, MYC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PLB 150</td>
<td>Plumbing, Introduction to the Trade AND</td>
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</tr>
<tr>
<td>PLB 151</td>
<td>Basic Plumbing Skills AND</td>
<td>3</td>
</tr>
<tr>
<td>PLB 160</td>
<td>Basic Theory of Plumbing AND</td>
<td>3</td>
</tr>
<tr>
<td>PLB 161</td>
<td>Plumbing Principles</td>
<td>3</td>
</tr>
<tr>
<td>PLB 165</td>
<td>Plumbing Systems, DWV &amp; Water</td>
<td>3</td>
</tr>
<tr>
<td>PLB 171</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>
<td>2</td>
</tr>
<tr>
<td>PLB 260</td>
<td>Service &amp; Code Review</td>
<td>2</td>
</tr>
<tr>
<td>PLB 261</td>
<td>Advanced Plumbing OR</td>
<td>2</td>
</tr>
<tr>
<td>PLB 265</td>
<td>Valve &amp; Faucet Repairs AND</td>
<td>1</td>
</tr>
<tr>
<td>PLB 267</td>
<td>Water Heater Service &amp; Replacement AND</td>
<td>1</td>
</tr>
<tr>
<td>PLB 269</td>
<td>Sewer &amp; Drain Cleaning</td>
<td>1</td>
</tr>
</tbody>
</table>

Total 20-21

Professional Craft: Pottery

This program is designed to prepare individuals for employment as professional potters or in pottery-related fields. The curriculum introduces both traditional and contemporary concepts of pottery. The program provides training in technical skills, design skills, and marketing and business essentials. Course work includes development of basic and advanced throwing skills with emphasis on form and design. Study will include pottery studio design and marketing procedures for the professional potter. Graduates will be able to open and operate their own pottery, work for existing pottery businesses, or transfer to a four-year degree program. Upon completion, graduates will receive an Associate in Applied Science degree.

Kiln Building for Professional Potters Certificate:
Includes instruction in the methods of kiln construction, the principles used in designing kilns, and instruction in how to prepare layouts for building kilns. Topics include safety, historical and perspective, materials, design, type, fuels, and firing process. The program will also provide students with hands on experience in the building of kilns for use by professional potters. Students will participate in the building of two different types of kilns using two different types of fuels. Upon successful completion of the program, students will be able to supervise the construction of kilns for use by professional potters.

Professional Raku Pottery Certificate:
Provides students with advanced instruction in the techniques of producing and firing raku pottery. The program provides instruction in advanced shapes and decoration; constructing, loading, and firing a personal raku kiln; and the creation of a body of work for a one-person show and sale.

Certificates

Kiln Building for Professional Potters - 5007113029
(Offered at SEC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC 110</td>
<td>Introduction to Pottery</td>
<td>7</td>
</tr>
<tr>
<td>PC 250</td>
<td>Professional Kiln Design</td>
<td>5</td>
</tr>
<tr>
<td>PC 252</td>
<td>Professional Kiln Building</td>
<td>5</td>
</tr>
</tbody>
</table>

Total 17
The AAS Track in Wood/Furniture Design prepares a student to start a business in studio production for pottery, tiles, slip casting, mold making and/or kiln building; begin employment as a studio technician to maintain equipment and manage various kinds of kiln firings; work for commercial ceramics businesses as a production designer, decorator, mold-maker, decal maker, conservationist, kiln and/or glaze technician; or to pursue higher degrees in the field of ceramics. The program is designed to prepare students to become independent and self-reliant ceramicists in creative and functional design.

The AAS Track in Bluegrass & Traditional Music prepares a student to begin work as a professional bluegrass and traditional musician in the areas of performance, touring, studio recording, studio engineering, and songwriting. The track also provides training in music business, management and event promotion while providing the student preparation to pursue a four-year degree. Program studies will offer in-depth mentoring and “real world” performance situations for solo, ensemble, and instrumental musicians as well as recording session set-up, sound enhancement and band management.

The diploma in Bluegrass & Traditional Studio Artist and the certificate in Bluegrass & Traditional Music Fundamentals will afford students the opportunity to acquire training in the basics of performance, recording, songwriting and management. The diploma and certificate programs signify that the student possesses a basic understanding of the major components necessary for an entry-level career in Bluegrass and Traditional Music.

The AAS track in Ceramics prepares a student to start a business in studio production for pottery, tiles, slip casting, mold making and/or kiln building; begin employment as a studio technician to manage equipment and manage various kinds of kiln firings; work for commercial ceramics businesses as a production designer, decorator, mold-maker, decal maker, conservationist, kiln and/or glaze technician; or to pursue higher degrees in the field of ceramics. The program is designed to prepare students to become independent and self-reliant ceramicists in creative and functional design.

The diploma in Ceramics Studio Technician and the certificate in Ceramics Fundamentals will afford students the opportunity to acquire specialized and basic technical skills as a ceramicist and technician. The Ceramics Studio Certificate will give the student an intensive foundation in ceramics technique and studio practice. The diploma and certificate programs signify that the student possesses a basic understanding of ceramic object design and fabrication techniques necessary for entry-level positions in custom or commercial ceramic industry.

Documentation of digital literacy as defined by KCTCS is required prior to enrolling in the first PSA course.

**HUM 202 for Bluegrass and Traditional Music Track**

---

### Academic Curricula

#### Professional Studio Artist - 500713019

(Offered at SEC)

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<thead>
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<td>PC 254</td>
<td>Professional Raku Pottery I</td>
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### Associate in Applied Science

#### Professional Studio Artist - 5002017019

(Offered at HZC)

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<td>COM 252</td>
<td>Introduction to Interpersonal Communications OR</td>
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<td>ART 113</td>
<td>3-Dimensional Design</td>
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<td>BAS 200</td>
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<td>ACT 101</td>
<td>Fundamentals of Accounting I</td>
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<td>PSW 111</td>
<td>Introduction to Furniture Making</td>
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<td>PSW 115</td>
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<td>PSW 116</td>
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<td>Wood Turning for Furniture</td>
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<td>PSW 210</td>
<td>Furniture Making III</td>
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<td>PSW 211</td>
<td>Wood Bending and Veneering</td>
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<td>PSW 212</td>
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### Wood/Furniture Design Track - 500201701

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<td>ART 113</td>
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<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I</td>
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<td>Introduction to Furniture Making</td>
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<td>PSW 116</td>
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<td>PSW 117</td>
<td>Wood Turning for Furniture</td>
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<tr>
<td>PSW 210</td>
<td>Furniture Making III</td>
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<td>PSW 211</td>
<td>Wood Bending and Veneering</td>
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<td>PSW 212</td>
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Jewelry/Metals Track - 500201702

ART 112 Drawing I .............................................. 3
ART 113 2-Dimensional Design .............................. 3
ART 115 3-Dimensional Design .............................. 3
BAS 200 Small Business Management .................... 3
ACT 101 Fundamentals of Accounting I ................... 3
PSJ 110 Jewelry/Metals I ...................................... 3
PSJ 115 Jewelry/Metals II ...................................... 3
PSJ 116 Ancient Techniques .................................. 3
PSJ 117 Metal Casting /Finishing Techniques ........... 2
PSJ 210 Jewelry/Metals III .................................... 3
PSJ 211 Holloware and Metal Forming ..................... 3
PSJ 212 Metallurgy of Precious Metals .................... 2
PSJ 215 Jewelry/Metals IV .................................... 3
PSJ 216 Stone Setting ......................................... 3
PSJ 220 Jewelry/Metals Product Development ............ 2
PSA 240 Professional Artist Seminar ....................... 3
Sub Total .................................................... 45
Total Credits ................................................ 63-64

Bluegrass and Traditional Music Track - 500201703
(Offered HZC)

BAS 200 Small Business Management .................... 3
ACT 101 Fundamentals of Accounting I ................... 3
MUS 174 Theory for Non-Music Majors ................... 3
MLIC 150 Classic Instruction to Piano OR ................. 0-1
Competency by audition
PSM 101 Bluegrass & Traditional Music History I ..... 3
PSM 105 Recording I .......................................... 1
PSM 107 Songwriting II ...................................... 1
PSM 112 Individual String Instrument Instruction x 4 4
PSM 113 Guitar I OR ......................................... 0-1
Competency by audition
PSM 114 Bluegrass & Traditional Band/Ensemble x 4 8
PSM 118 Bluegrass & Traditional Harmony/Part Singing 2
PSM 121 Bluegrass & Traditional Music History II ..... 3
PSM 125 Recording II OR ................................... 1
PSM 117 Songwriting II ...................................... (1)
PSM 231 Bluegrass & Traditional Music III .............. 3
PSM 235 Recording III OR ................................... 2
PSM 217 Songwriting III ..................................... (2)
PSM 245 Recording IV OR ................................... 2
PSM 227 Songwriting IV ..................................... (2)
PSA 240 Professional Artist Seminar ....................... 3
Subtotal ..................................................... 42-44
Total Credits ................................................ 50-63

Ceramics Track - 500201704

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
PSC 112 Ceramics I ........................................... 3
PSC 115 Ceramics II .......................................... 3
PSC 117 Glaze Calculations ................................... 3
PSC 210 Ceramics III ......................................... 3
PSC 211 Kiln Operation and Design ......................... 3
PSC 212 Ceramic Production Techniques ................ 3
PSC 215 Ceramics IV .......................................... 3
PSC 220 Ceramics Product Development ................ 3
PSC 230 Ceramics V .......................................... 3
PSA 240 Professional Artist Seminar ....................... 3
Sub Total .................................................... 45
Total Credits ................................................ 50-64

Technical/Support Courses

Digital Literacy OR ........................................... 0-3
Digital Competency by exam
ART 110 Drawing I ............................................ 3
ART 113 3-Dimensional Design .............................. 3
BAS 200 Small Business Management .................... 3
PSJ 110 Jewelry/Metals I .................................... 3
PSJ 115 Jewelry/Metals II .................................... 3
PSJ 117 Metal Casting /Finishing Techniques ........... 2
PSJ 210 Jewelry/Metals III ................................... 3
PSJ 211 Holloware and Metal Forming .................... 3
PSJ 216 Stone Setting ........................................ 3
Subtotal ..................................................... 42
Total Credits ................................................ 52-63

Diplomas

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 113 3-Dimensional Design .............................. 3
BAS 200 Small Business Management .................... 3
PSJ 110 Jewelry/Metals I .................................... 3
PSJ 115 Jewelry/Metals II .................................... 3
PSJ 117 Metal Casting /Finishing Techniques ........... 2
PSJ 210 Jewelry/Metals III ................................... 3
PSJ 211 Holloware and Metal Forming .................... 3
PSJ 216 Stone Setting ........................................ 3
Subtotal ...................................................... 44
Total Credits ................................................ 44-57

Jewelry/Metals Technician - 5002014029

ENG 101 Writing I .............................................. 3
MAT 110 Applied Math OR .................................. 3
Any higher level math ........................................... 9
Subtotal ...................................................... 6

Technical/Support Courses

Digital Literacy OR ........................................... 0-3
Digital Competency by exam
ART 110 Drawing I ............................................ 3
ART 113 3-Dimensional Design .............................. 3
BAS 200 Small Business Management .................... 3
PSJ 110 Jewelry/Metals I .................................... 3
PSJ 115 Jewelry/Metals II .................................... 3
PSJ 117 Metal Casting /Finishing Techniques ........... 2
PSJ 210 Jewelry/Metals III ................................... 3
PSJ 211 Holloware and Metal Forming .................... 3
PSJ 216 Stone Setting ........................................ 3
Subtotal ...................................................... 44
Total Credits ................................................ 52-63

Bluegrass & Traditional Studio Artist - 5002014039
(Offered at HZC)

General Education:
Area 1 = Written/Oral Communications, and/or
Heritage/Humanities ........................................... 3-6
Area 2 = Social/Behavioral Science, Natural Science and/or
Quantitative Reasoning .................................... 3-6
Subtotal ...................................................... 9

Total Credits ................................................ 37-40
Support Courses
BAS 200 Small Business Management ......................... 3
HLIM 202 Survey of Appalachian Studies I .................. 3
MLIS 174 Theory for Non-Music Majors ...................... 3

Technical Courses
PSM 101 Bluegrass & Traditional Music History I .......... 3
PSM 113 Guitar I OR ......................... 0-1
PSC 212 Ceramic Production Techniques .................. 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 ................................................. 17-27

Total Credits ........................................... 35-45

Certificates
Furniture Making Fundamentals - 5002013029
ART 110 Drawing I .................................... 3
PSW 111 Introduction to Furniture Making .................. 3
PSW 115 Furniture Making II ................................ 3
PSW 116 Wood Finishing ................................ 2
PSW 211 Wood Bending and Veneering .................... 3

Total Credits ........................................... 14

Wood Furniture Studio - 5002013059
PSW 111 Introduction to Furniture Making .................. 3
PSW 115 Furniture Making II ................................ 3
PSW 116 Wood Finishing ................................ 2
PSW 117 Wood Turning for Furniture ....................... 3
PSW 211 Wood Bending and Veneering .................... 3

Total Credits ........................................... 14

Jewelry/Metals Fundamentals - 5002013019
ART 110 Drawing I .................................... 3
ART 112 2-Dimensional Design .............................. 3
PSJ 110 Jewelry/Metals I ................................ 3
PSJ 115 Jewelry/Metals II ................................ 3
PSJ 210 Jewelry/Metals III ................................. 3

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

Jewelry Studio - 5002013069
PSJ 110 Jewelry/Metals I ................................ 3
PSJ 115 Jewelry/Metals II ................................ 3
PSJ 116 Ancient Techniques ................................. 3
PSJ 117 Metal Casting/Finishing Techniques ................ 2
PSJ 211 Hollowware and Metal Forming .................... 3
PSJ 212 Metallurgy of Precious Metals .................... 3

Total Credits ........................................... 16

Bluegrass & Traditional Music Fundamentals - 5002013039
BAS 200 Small Business Management ........................ 3

Technical Courses
PSM 105 Recording I .................................... 1
PSM 107 Songwriting I .................................... 1
PSM 114 Bluegrass & Traditional Band/Ensemble x2 ..... 4
PSM 101 Bluegrass & Traditional Music History I ........ 3
PSM 113 Guitar I OR .................................... 0-1
PSM 114 Individual String Instrument Instruction x4 ..... 4
PSM 125 Recording II ..................................... 1
PSM 235 Recording III .................................... 1
PSM 235 Recording IV .................................... 1

Total Credits ........................................... 14-15

Audio Recording – 5002013089
BAS 200 Small Business Management ........................ 3

Guided Electives (Select 2 of the following):
PSM 101 Bluegrass & Traditional Music History I ........ 3
PSM 107 Songwriting I .................................... 1
PSM 112 Individual Stringed Instruction ..................... 1
PSM 113 Guitar I ........................................... 1
PSM 125 Recording II ..................................... 1
PSM 235 Recording III .................................... 2
PSM 235 Recording IV .................................... 2

Total Credits ........................................... 16

Ceramics Fundamentals - 5002013049
PSM 105 Recording I .................................... 1
PSM 107 Songwriting I .................................... 1

Total Credits ........................................... 18

Ceramics Studio - 5002013079
PSM 101 Bluegrass & Traditional Music History I ........ 3
PSM 107 Songwriting I .................................... 1
PSM 112 Individual Stringed Instruction ..................... 1
PSM 113 Guitar I ........................................... 1
PSM 125 Recording II ..................................... 1
PSM 235 Recording III .................................... 2
PSM 235 Recording IV .................................... 2

Total Credits ........................................... 15
Project Lead the Way

Project Lead the Way complements traditional college-preparatory academic studies with challenging career/technical studies, providing students with hands-on exposure to real-life engineering challenges.

Certificate

Engineering Related – PLTW – 151593019

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<th>Credit</th>
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<td>PLW 125</td>
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<td>PLW 150</td>
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<td>PLW 200</td>
<td>Aerospace Engineering or</td>
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<tr>
<td>PLW 225</td>
<td>Civil Engineering and Architecture or</td>
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<td>PLW 250</td>
<td>Computer Integrated Manufacturing</td>
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<td>PLW 295</td>
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Quality Management Systems

The Quality Management Systems program prepares students to analyze and implement systems for continuous improvement of functions and processes for the manufacturing, government, and service sectors. Students are taught to analyze and solve quality problems, prepare inspection plans and instructions, and select sampling plan applications. Emphasis is placed on learning the tools and techniques for controlling processes, improving process reliability, improving efficiencies, and eliminating defects. Upon completion of the program, graduates are qualified for employment in entry-level managerial or supervisory positions. Course work uses and reflects the body of knowledge found in professional quality certifications such as offered by the American Society for Quality.

Certificate

Quality Technician - 1507024029

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<td>MAT 150</td>
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<td>BRX 120</td>
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<td>QMS 101</td>
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<tr>
<td>QMS 201</td>
<td>Customer Service Improvement Skills</td>
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<td>QMS 202</td>
<td>Performance Management</td>
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<td>QMS 220</td>
<td>Quality Audits</td>
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<td>QMS 240</td>
<td>Statistics for Quality I</td>
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<td>QMS 242</td>
<td>Statistics for Quality II</td>
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Technical Support Courses—15 -17 hrs.

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<tr>
<td>QMS 210</td>
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<td>QMS 212</td>
<td>Project Management</td>
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<td>QMS 251</td>
<td>Strategic Quality Planning</td>
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<td>QMS 262</td>
<td>Design of Experiments</td>
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<td>QMS 299</td>
<td>Topics in Quality Management Systems</td>
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<td>BAS 212</td>
<td>Introduction to Financial Management</td>
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<td>BRX 120</td>
<td>Basic Blue Print reading</td>
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<td>CAD 100</td>
<td>Introduction to Computer-Aided Design</td>
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Certificate

Lean Manufacturing Facilitator – 1507023119

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Technical Core 18 -21 hrs.

Computer/Digital Literacy | 0-3
QMS 101 | Introduction to Quality Systems | 3
QMS 201 | Customer Service Improvement Skills | 3
QMS 202 | Performance Management | 3
QMS 220 | Quality Audits | 3
QMS 240 | Statistics for Quality I | 3
QMS 242 | Statistics for Quality II | 3
| **Subtotal** | | **18-21 hrs.** |

Certificate

Quality Support - 1507023059

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</table>
| QMS 240 | Statistics for Quality I | 3
| QMS 242 | Statistics for Quality II | 3 |
| **Total** | | **12** |
Radiography

This program prepares the individual to become a radiographer. The radiographer is prepared to administer ionizing radiation for medical diagnostic imaging purposes. Emphasis is on radiation protection and quality patient care. The curriculum is comprised of specialized courses in radiography with concentrated study in the basic sciences, mathematics and general education. Students enrolled in the Radiography program must achieve a minimum grade of "C" in each Radiography course, required natural science course, and required quantitative reasoning course. Upon completion of the program, the graduate is eligible to apply to write the examination for registration as a radiographer by the American Registry of Radiologic Technologists. Radiographers may find positions in hospitals, health clinics, and physicians’ offices. Research laboratories and some industrial firms may also employ radiographers. The curriculum requires attendance in the summer session, fall and spring semesters. Note: CPR certificate must be obtained prior to enrolling in IMG 100 or IMG 104, IMG 106 and IMG 108 and certification must be kept current throughout the program. Note: Documentation of digital literacy as defined by KCTCS is required prior to admission to IMG courses.

Advanced Imaging in Radiography focuses on the areas of Computed Tomography (CT) and Magnetic Resonance Imaging (MRI) in the Radiological Sciences. Didactic and clinical instruction prepares the technologist to work in the areas of CT and MRI in the healthcare setting and to sit for the Advanced Board Exams given by the American Registry of Radiologic-Technologists. These courses are offered for technologists who are currently registered by the American Registry of Radiologic Technologists in Radiography or the Nuclear Medicine Technology Certification Board in Nuclear Medicine, or students who have completed one year and are currently enrolled in an accredited radiography or nuclear medicine program, or by consent of the instructor. The core curriculum courses are intended to provide the student with an overall knowledge of advanced patient care and sectional anatomy. The CT and MRI tracks focus on the physics, instrumentation and imaging techniques of these modalities. The student may choose CT or MRI or both. Although these courses are organized in a hierarchical pattern, depending on the entry-level knowledge and the needs of the student, they may be taken out of sequence with consent of the instructor.

Note: Hours Exception (71-75 for the A.A.S. and 56-62 for the Diploma) approved by the KCTCS Board of Regents in June 2010.

Associate in Applied Science

Radiography - 5109117019

(Offered at BLC, ELC, HZC, JFC, MDC, OWC, SEC, SKY, SMC, WKC)

General Education:
- Social/Behavioral Sciences ........................................................... 3
- Heritage/Humanities .................................................................... 3
- Oral Communications .................................................................. 3
- Higher Level Quantitative Reasoning Course ............................. (3)
- BIO 137 Human Anatomy & Physiology I ................................. 4
- BIO 139 Human Anatomy & Physiology II ................................ 4
- PHY 172 Physics for Health Sciences OR ................................. 2
- PHY 152 Introduction to Physics OR ........................................... (3)
- PHY 171 Applied Physics .............................................................. (4)

Subtotal 25-27

Support Course:
- CLA 131 Medical Terminology from Greek & Latin OR ......... 3
- AHS 115 Medical Terminology .................................................... (3)

Subtotal 3

Pathway 1 – 510911701

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 73-75
Pathway 2 – 510911702
(Offered at ELC, JFC, MDC, OWC, SEC, SKY, SMC, WKC)

Technical Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>IMG 104</td>
<td>Introduction to Radiography</td>
<td>2</td>
</tr>
<tr>
<td>IMG 106</td>
<td>Patient Care in Radiography*</td>
<td>2</td>
</tr>
<tr>
<td>IMG 108</td>
<td>Radiographic Procedures I</td>
<td>4</td>
</tr>
<tr>
<td>IMG 109</td>
<td>Clinical Practice I</td>
<td>1</td>
</tr>
<tr>
<td>IMG 114</td>
<td>Image Production and Acquisition</td>
<td>2</td>
</tr>
<tr>
<td>IMG 116</td>
<td>Advanced Patient Care in Radiography</td>
<td>2</td>
</tr>
<tr>
<td>IMG 118</td>
<td>Radiographic Procedures II</td>
<td>4</td>
</tr>
<tr>
<td>IMG 119</td>
<td>Clinical Practice II</td>
<td>3</td>
</tr>
<tr>
<td>IMG 209</td>
<td>Clinical Practice III</td>
<td>3</td>
</tr>
<tr>
<td>IMG 214</td>
<td>Imaging Equipment</td>
<td>2</td>
</tr>
<tr>
<td>IMG 216</td>
<td>Basic Computed Tomography</td>
<td>1</td>
</tr>
<tr>
<td>IMG 219</td>
<td>Clinical Practice IV</td>
<td>6</td>
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<tr>
<td>IMG 224</td>
<td>Radiation Protection &amp; Biology</td>
<td>2</td>
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<tr>
<td>IMG 226</td>
<td>Radiography Pathology</td>
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<tr>
<td>IMG 228</td>
<td>Radiography Seminar</td>
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<tr>
<td>IMG 229</td>
<td>Clinical Practice V</td>
<td>6</td>
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Subtotal: 43

Total Credits Pathway 2: 71-73

*NAA 100 may be substituted for IMG 106.

Certificate

Advanced Imaging in Radiography - 5109113029

Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>IMG 230</td>
<td>Sectional Anatomy for Advanced Imaging</td>
<td>3</td>
</tr>
<tr>
<td>IMG 240</td>
<td>Pathology for Advanced Medical Imaging Modalities</td>
<td>3</td>
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Subtotal: 6

Computed Tomography Track – 510911301

(Offered at HZC, OWC, SEC, SMC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>IMG 250</td>
<td>Computed Tomography Physics and Instrumentation</td>
<td>3</td>
</tr>
<tr>
<td>IMG 260</td>
<td>Computed Tomography Imaging Procedures</td>
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</table>

Subtotal: 6

Total Credits: 12

Computed Tomography with Clinical Track – 510911302

(Offered at OWC, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
<td>IMG 250</td>
<td>Computed Tomography Physics and Instrumentation</td>
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<td>IMG 260</td>
<td>Computed Tomography Imaging Procedures</td>
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<tr>
<td>IMG 285</td>
<td>Computed Tomography Clinical Practice I</td>
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</table>

Subtotal: 10

Total Credits: 16

Magnetic Resonance Imaging Track – 510911303

(Offered at HZC, OWC, SEC, SMC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMG 255</td>
<td>Magnetic Resonance Physics and Instrumentation</td>
<td>3</td>
</tr>
<tr>
<td>IMG 265</td>
<td>Magnetic Resonance Imaging Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

Subtotal: 6

Total Credits: 12

Real Estate

This program has several purposes: (1) to prepare the student for entry into the real estate field; (2) to provide continuing education for the individual already licensed in real estate; (3) to provide an educational opportunity for persons wanting to fulfill professional or general interest needs; and (4) to provide a foundation for those planning to pursue the specialized fields of appraising, property management, commercial and industrial site selection, consulting, and urban and land use planning.

The curriculum covers such areas as real estate principles and practices, appraisal, finance, marketing, management, construction, and blueprints. Additional courses in real estate, business, and general education complete the program.

Individuals who complete the program may enter public or private employment in such real estate areas as sales, finance, development, management valuation, and market analysis. With experience, the individual may opt for positions in appraising, consulting, brokerage, and property management.

The Real Estate Program also offers two Real Estate Certificate programs: the Real Estate Pre-Licensing Certificate requiring 6 hours and the Residential Real Estate Certificate requiring 12 hours. The Real Estate Pre-Licensing Certificate provides the information students need to prepare for the Real Estate License exam. The Residential Real Estate Certificate provides students the information needed to enhance their abilities as residential real estate agents.

Associate in Applied Science

Real Estate - 5215017000

(Offered at JFC)

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>
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<tr>
<td>ENG 102</td>
<td>Writing II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Heritage/Humanities</td>
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</tr>
<tr>
<td></td>
<td>Quantitative Reasoning</td>
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</tr>
<tr>
<td></td>
<td>Oral Communications</td>
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<td></td>
<td>Natural Sciences</td>
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<td></td>
<td>Social/Behavioral Sciences</td>
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<td>Elective(s)</td>
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<td>Economics</td>
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Subtotal: 25-28

Program Requirements

<table>
<thead>
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<th>Course</th>
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<tbody>
<tr>
<td>REA 100</td>
<td>Real Estate Principles I</td>
<td>3</td>
</tr>
<tr>
<td>REA 120</td>
<td>Real Estate Marketing</td>
<td>3</td>
</tr>
<tr>
<td>REA 121</td>
<td>Appraising</td>
<td>3</td>
</tr>
<tr>
<td>REA 122</td>
<td>Construction &amp; Blueprints OR</td>
<td>3</td>
</tr>
<tr>
<td>ACH 100</td>
<td>Construction Documents</td>
<td>3</td>
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<tr>
<td>REA 201</td>
<td>Property Management</td>
<td>3</td>
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<tr>
<td>REA 202</td>
<td>Real Estate Investments I</td>
<td>3</td>
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<tr>
<td>REA 220</td>
<td>Real Estate Brokerage Management</td>
<td>3</td>
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<tr>
<td>REA 225</td>
<td>Real Estate Finance</td>
<td>3</td>
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<tr>
<td>REA 230</td>
<td>Real Estate Law</td>
<td>3</td>
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<tr>
<td>ACC 201</td>
<td>Financial Accounting I OR</td>
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<td>ACT 101</td>
<td>Fundamentals of Accounting I</td>
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<tr>
<td>IM 267</td>
<td>Introduction to Business Law</td>
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Subtotal: 37-39

Technical Courses (Choose one of the following)

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>CIS 130</td>
<td>Microcomputer Applications</td>
<td>3</td>
</tr>
<tr>
<td>REA 203</td>
<td>Commercial &amp; Industrial Property</td>
<td>3</td>
</tr>
<tr>
<td>REA 204</td>
<td>Land Planning &amp; Development</td>
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Certificates
Real Estate Pre-Licensing - 5215013029
(Offered at BLC, ELC, JFC, MYC)
REA 100 Real Estate Principles I .......................... 3
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
Subtotal 3

Total Credits 6

Residential Real Estate - 5215013019
(Offered at ELC, JFC)
REA 100 Real Estate Principles I .......................... 3
REA 120 Real Estate Marketing ................................ 3
Subtotal 6

Choose two from the following (6 credit hours)
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
Subtotal 6

Total Credits 12

Academic Curricula

Respiratory Care

The Respiratory Care program prepares the graduate to take an active role in the maintenance and/or restoration of cardiopulmonary homeostasis. The curriculum includes intensive course work in the supporting sciences and general education areas. Classroom instruction is supplemented with learning experiences in the campus laboratory and in area clinical affiliates. Students enrolled in the Respiratory Care program are required to achieve a minimum grade of "C" in each Respiratory Care course.

Although hospitals employ the majority of respiratory therapists, other employers include home care providers, medical clinics, nursing homes, and industry. Graduates are qualified to take the National Board for Respiratory Care examination in order to receive the Certified Respiratory Therapist (C.R.T) credential. Graduates who successfully completed the CRT examination may additionally take the advanced practice examinations and receive the Registered Respiratory Therapist (RRT) credential.

*Note: Those 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

Advanced Practice Respiratory Therapist - 5109087049
(Offered at ASC, BLC, BSC, ELC, JFC, MDC, MYC, SEC, SKY, SMC)

BIO 137 Human Anatomy & Physiology I*............. 4
BIO 139 Human Anatomy & Physiology II*........... 4
MAT 150 College Algebra* OR ............................ 3
MAT 110 Applied Mathematics* OR ....................... (3)
MAT 146 Contemporary College Mathematics* . (3)
ENG 101 Writing I ............................................. 3
ENG 102 Writing II ........................................... (3)
BIO 226 Principles of Microbiology OR ............. (3)
BIO 225 Medical Microbiology ........................... (4)

Recommended Additional Course(s)

Medical Terminology ....................................... (3)
Writing I ...................................................... (3)

Total Credits 68-70

Technical Courses

RCP 110 Cardiopulmonary Anatomy & Physiology .... 3
RCP 120 Theory & Principles of Respiratory Care OR 4
RCP 122 Fundamentals of Respiratory Care# ........ (4)
RCP 125 Cardiopulmonary Evaluation OR .......... 4
RCP 140 Cardiopulmonary Assessment# .............. (2)
RCP 130 Pharmacology OR ............................... 3
HST 121 Pharmacology** ................................ (2)
RCP 150 Clinical Practice I OR ............................ 2
HST 101 Basic Skills II** OR .............................. (3)
RCP 121 Respiratory Care Practice II# ............... (1)
RCP 175 Clinical Practice II OR ........................ 3
RCP 176 Respiratory Care Practice II# ............... (2)
RCP 180 Ventilatory Support AND ....................... 3
RCP 190 Advanced Ventilatory Support OR .......... 2
RCP 185 Introduction to Mechanical Ventilation# AND (2)
RCP 195 Patient-Ventilator System Management# ... (4)
RCP 200 Clinical Practices III OR ...................... 3
RCP 201 Respiratory Care Practice III# ............... (2)
RCP 204 Emergency and Special Procedures AND .... (3)
RCP 214 Advanced Diagnostic Procedures OR ...... 3
RCP 240 Advanced Cardiopulmonary Evaluation# AND (3)
RCP 245 Advanced Cardiac Life Support# .......... (2)
RCP 210 Cardiopulmonary Pathophysiology OR .... 3
HST 122 Clinical Pathophysiology** ................. (3)
RCP 212 Neonatal/Pediatric Respiratory Care ....... 3
RCP 225 Clinical Practice IV OR ....................... (3)
RCP 226 Respiratory Care Clinical Practice IV# ...... (4)
RCP 228 Preventive and Long Term Respiratory Care .. 2
RCP 250 Clinical Practice V OR .......................... 3
RCP 251 Respiratory Care Practice V# ............... (4)
Elective (BCTC requires RCP 260) .................... 0-1
Technical Course Credit Total .......................... 47
Technical Course Credit Total# ........................ 45
Total Credits 68-70

*General Education Course
**May not be accepted at Elizabethtown CTC or Madisonville CC for Respiratory Care degree program credit.

# RCP courses currently only offered and required at BCTC for degree completion at that college.

Certificates

Polysomnographic Technologist - 5109083069

BIO 137 Human Anatomy & Physiology I* ............. 4
BIO 139 Human Anatomy & Physiology II* .......... 4
ENG 101 Writing I ............................................. 3
MAT 150 College Algebra* OR ............................ 3
The Supply Chain Security program provides an overview of the needs and requirements for a safe, secure supply chain. The program looks at ways to maximize the security benefit within operational (financial and aesthetic) constraints.

The Antiterrorism Physical Security Specialist program provides a comprehensive overview of a physical security program. Topics covered are access control systems; intrusion detection, both interior and exterior; crisis management; national incident management systems; contracting guard forces; international and domestic terrorism and their threat to America; security surveys/audits; managing a security operation; IT security; CCTV; contingency planning; locks and locking devices; workplace violence; and perimeter security.

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.

Electives: A minimum of 3 credit hours must be taken from this list of electives:

- LSI 100 Fundamental Principles of Physical Security
- LSI 105 Force Protection
- LSI 110 Security Surveys
- LSI 115 Command Security Officer Training
- LSI 130 GSA: Locks, Vaults & Containers
- LSI 131 GSA: Locks, Vaults & Containers Certified Inspector Training
- LSI 151 Basic Safe Penetration
- LSI 152 Combination Lock Manipulation
- LSI 153 Safe Lock Servicing - Mechanical and Electronic
- LSI 160 Fundamentals of Electricity
- LSI 170 Electronic Access Control
- LSI 180 Security and Crime Prevention Management
- LSI 185 Security and Crime Prevention Countermeasures
- LSI 190 Security Hardware & Bypass Techniques
- LSI 195 Tactical Lock (restricted enrollment)

**Safe & Lock Technician - 4301123040**

(Offered at BLC)

- LSI 150 Professional Industrial Locksmithing
- LSI 153 Safe Lock Servicing
- Electives

Total Credits 16

Electives: A minimum of 10 credit hours must be taken from this list of electives.

- LSI 110 Security Surveys
- LSI 130 GSA: Lock, Vault & Container
- LSI 151 Basic Safe Penetration

Total Credits 10
The Surgical First Assistant provides aid in exposure, hemostasis, and other technical functions that will help the surgeon carry out a safe operation with optimal results for the patient. This role will vary considerably with the surgical operation, specialty area, and type of facility. Clinical skills performed under direct supervision of the surgeon include the following: positioning the patient, preparing the skin, providing visualization of the operative site, utilizing appropriate techniques to assist with hemostasis, participating in volume replacement or auto transfusion techniques as appropriate, utilizing appropriate techniques in the closure of body planes, selecting and applying appropriate wound dressings and providing assistance in securing drainage system to tissue.

This program provides clinical experience built upon classroom instruction in the basic sciences, patient care, aseptic techniques and surgical procedures. Students enrolled in the Surgical First Assistant Program are required to achieve a minimum grade of "C" in each Surgical First Assistant course. Graduates from the program are eligible to take the certifying exams offered by the National Surgical Assistant Association (CSA) or the National Board of Surgical Technologists and Surgical Assistants (CSFA).

### Surgical First Assisting

The Surgical First Assisting - 5109093020

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td>SUR 280</td>
<td>Surgical Anatomy</td>
<td>5</td>
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<tr>
<td>SUR 282</td>
<td>Perioperative Bioscience</td>
<td>3</td>
</tr>
<tr>
<td>SUR 284</td>
<td>Principles of Surgical Assisting</td>
<td>3</td>
</tr>
<tr>
<td>SUR 295</td>
<td>Surgical First Assistant Clinical</td>
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<tr>
<td>SUR 296</td>
<td>Surgical First Assistant Practicum</td>
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<tr>
<td>SUR 297</td>
<td>Surgical First Assistant Practicum II</td>
<td>1</td>
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</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. Student must provide current documentation of certificate/licensure.

### Surgical Technology

Surgical technologists are allied health professionals who are an integral part of the team of medical practitioners providing surgical care to patients in a variety of settings such as medical offices, out-patient clinics, and the operating room.

The surgical technologist works under medical supervision to facilitate the safe and effective conduct of invasive surgical procedures. This individual works under the supervision of a surgeon to ensure that the operating room environment is safe, that equipment functions properly, and that the operative procedure is conducted under conditions that maximize patient safety.

A surgical technologist possesses expertise in the theory and application of sterile and aseptic techniques and combines the knowledge of human anatomy, surgical procedures, and implementation tools and technologies to facilitate a physician’s performance of invasive therapeutic and diagnostic procedures.

This program provides clinical experience built upon classroom instruction in the basic sciences, patient care, aseptic techniques and surgical procedures. Students enrolled in the Surgical Technology Program are required to achieve a minimum grade of "C" in each course required for the credential. Students who withdraw from or earn less than a "C" in any course with a Surgical Technology prefix will be dropped from the Surgical Technology program and must reapply for admission. CPR (for Healthcare Professionals) requirements must be successfully completed prior to enrolling in the first surgical technology course and must be kept current throughout the program.

Students who have completed program requirements must sit for the certifying examination offered by the National Board on Certification for Surgical Technology and Surgical Assisting (NBSTSA), 6 West Dry Creek Circle, Suite 100; Littleton, CO 80120; Phone: (800) 707 0057; www.nbstsa.org.

The following programs hold accreditation from the Commission on Accreditation of Allied Health Education Programs (CAAHEP) 1361 Park Street, Clearwater Florida 33756; (727) 210 2350; www.caahep.org who accredits programs upon the recommendation of the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA), 6 West Dry Creek Circle, Suite 110; Littleton, CO 80120; Phone: (303) 694 9262; www.arcst.org; 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, Southcen-
General Education:

BIO 137 Human Anatomy & Physiology I AND ..........................4
BIO 139 Human Anatomy & Physiology II ..............................4
ENG 101 Writing I ..................................................................3
SUR 100 Surgical Technology Fundamentals/Theory AND ...........12
MIT 103 Medical Office Terminology ......................................(3)
MIT 104 Medical Office Terminology ......................................(3)
SUR 100 Surgical Technology Fundamentals/Theory AND ...........12
BIO 139 Human Anatomy & Physiology II ..................................4
BIO 225 Medical Microbiology OR ........................................... 3
BIO 226 Principles of Microbiology OR .....................................(3)
BIO 227 Principles of Microbiology with Laboratory OR ..........(3)
BAS 120 Personal Finance ..................................................(3)
MNA 100 Medicaid Nurse Aide OR .........................................(3)
NAA 100 Nursing Assistant Skills I ........................................(3)
STN 100 Surgical Technology Didactic Practicum .....................(1)
STN 101 Surgical Technology Fundamentals Lab .......................(1)
STN 102 Surgical Technology Clinical for Nurses ....................(1)
STN 110 Surgical Technology Procedures for Nurses ...............(1)

A total of 10 credit hours must be completed from the following practicum courses:

SUR 125 Surgical Technology Skills Practicum I ....................... 2-3
SUR 201 Surgical Technology Skills Practicum II ..................... 6-7
SUR 275 Surgical Technology Advanced Clinical Practicum ....... 2

Subtotal 40-45

Total Credits 60-65

Elective(s):

SUR 103 Surgical Technology Didactic Practicum .....................(1)
SUR 270 Pathophysiology for Surgical Technology OR ................(2)
MAI 200 Pathophysiology for the Medical Assistant .................(3)
BAS 120 Personal Finance ..................................................(3)
MNA 100 Medicaid Nurse Aide OR .........................................(3)
NAA 100 Nursing Assistant Skills I ........................................(3)

Note:
CPR certificate must be obtained prior to enrolling in the first Surgical Technology course and certification must be kept current throughout the Program.

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

Students successfully completing SUR 109 and SUR 110 are not required to take a microbiology course for the diploma option.

Certificates

Surgical Technology Bridge Program - 5109093019
(Offered at BSC)

STN 100 Surgical Technology Fundamentals for Nurses .......... 7
STN 101 Surgical Technology Lab for Nurses .......................... 1
STN 102 Surgical Technology Clinical for Nurses .................. 6
STN 110 Surgical Technology Procedures for Nursing ............ 4

Total Credit Hours 18

Surveying and Mapping Technology

The curriculum is arranged for students to gain employment in surveying and mapping. It allows students to gain the educational requirements to sit for the licensing exams in the state of Kentucky. Classes emphasize solving problems encountered in the field of Surveying & Mapping Technology. Students perform routine topographical, boundary and other mapping / surveying projects, as well as Global Positioning (GPS) surveys. Students establish essential data, keep notes, develop preliminary sketches, and prepare working drawings, profile and section maps, volume calculations, and topographic maps. Students use computer mapping and coordinate geometry software to accomplish these tasks.
Associate in Applied Science

Surveying and Mapping Technology - 1511027029
(Offered at BSC)

ENG 101 Writing I ........................................ 3
MAT 116 Technical Mathematics or .......... 3
SMT 110 Principles of Surveying .......... 3
SMT 130 Land Surveying Graphics ................. 3
SMT 160 Construction Surveying .......... 3
SMT 210 Advanced Surveying Measurement .... 3
SMT 220 Surveying Lab .................................. 3
SMT 230 Land Boundary Location .......... 3
SMT 250 Mine Surveying ................................. 3
SMT 270 Professional Ethics and Conduct for Land Surveyors 3
SMT 290 Boundary Law .................................. 3
SMT 320/321 Geodetic Surveying ................. 6
Technical Electives Approved by Program Coordinator .... 12
Subtotal ........................................ 33
AAS Total ........................................ 45

Diploma

Surveying Technician III - 1511024019
(Offered at BSC)

Required General Education
ENG 101 Writing I ........................................ 3
MAT 116 Technical Mathematics .......... 3
Subtotal ........................................ 6

Required Technical Courses
Computer/Digital Literacy ......................... 3
COM 181 Basic Public Speaking .................. 3
SMT 110 Principles of Surveying .......... 3
SMT 130 Land Surveying Graphics .......... 3
SMT 160 Construction Surveying .......... 3
SMT 210 Advanced Surveying Measurement .... 3
SMT 220 Surveying Lab .................................. 3
SMT 230 Land Boundary Location .......... 3
SMT 270 Professional Ethics and Conduct for Land Surveyors 3
SMT 290 Boundary Law .................................. 3
Technical Electives Approved by Program Coordinator .... 9
Subtotal ........................................ 33
Diploma Total ........................................ 39

Certificate

Surveying Technician II - 1511023029
(Offered at BSC, HZC, SEC)

Computer/Digital Literacy ......................... 3
SMT 110 Principles of Surveying .......... 3
SMT 130 Land Surveying Graphics .......... 3
Technical Electives Approved by Program Coordinator .... 3
Certificate Total ........................................ 12

Surveying Technician I - 1511023019
(Offered at BSC, HZC, SEC)

Computer/Digital Literacy ......................... 3
SMT 110 Principles of Surveying, or .......... 3
SMT 130 Land Surveying Graphics .......... 3
Certificate Total ........................................ 6

Technical Theatre

The Technical Theatre Certificate will prepare students for an entry level position as a theatre technician and/or advanced technical theatre studies.

Certificates

Technical Theatre - 5005013019
(Offered at OWC)

General Education Courses
THA 101 Introduction to Theatre: Principles and Practice .......... 3
COM 181 Basic Public Speaking (OR) ................. 3
COM 252 Intro to Interpersonal Communication (OR) .......... 3
ENG 101 Writing I ........................................ 3

Technical Core
THA 150 Fundamentals of Production .................. 3
THA 250 Stage Electrics ................................. 3
THA 260 Stagecraft ....................................... 3
THA 141 Costuming and Make-up for the Stage ........ 3

Technical Electives (Select one of the following)
ART 113 3 Dimensional Design ......................... 3
ELT 110 Circuits I ........................................ 4
DFT 102 Drafting Fundamentals ................. 3
WLD 152 Basic Welding B ............................... 5
CAR 126/127 Introduction to Construction/Intro to Construction Lab ... 3/1
THA 192 Production Practicum ...................... 1
Other courses as approved by the program coordinator
Total ........................................ 19-24

Truck Driver Training

Prepares students to drive tractor trailer trucks, apply their knowledge of commercial driving regulations, prepare receipts for loads, maintain truck logs according to state and federal regulations, load and unload trucks, inspect trucks and their equipment. The Transportation Specialist certificate will also include the operation of basic heavy equipment in addition to the routine and minor maintenance and repairs on diesel engines.

Certificates

Tractor Trailer, CDLA I - 4902053010
(Offered at BSC, HPC, HZC, MYC, SMC)

TRU 100 Truck Driving .................................. 6
Total Credits ........................................ 6

Tractor Trailer, CDLA II - 4902053029
(Offered at JFC)

TNT 110 Basic Operations .............................. 3
TNT 120 Safe Operating Practices .................. 3
TNT 210 Advanced Operating Practices .......... 1
TNT 220 Vehicle Systems and Reporting Malfunction .... 3
TNT 250 Internship .................................... 4
Total Credits ........................................ 14

Tractor Trailer, CDLA III - 4902053039
(Offered at BSC)

TRK 110 Driver Preparation ..................... 3
TRK 120 Trucking Safety ............................. 3
TRK 130 Instrumentation ......................... 3
TRK 140 Systems Check ............................. 1
TRK 150 CDL Training ............................... 3
VETERINARY TECHNOLOGY

The Veterinary Technology program will provide students with the skills and knowledge needed to work as a professional veterinary technician. Areas of study include anatomy, physiology, microbiology, clinical techniques, office and hospital procedures, client relations and communication, pharmacology, and veterinary technologies. The program will provide students with "real-world" clinical and lab experiences to develop the skills needed to become a valued professional in the field.

ASSOCIATE IN APPLIED SCIENCE

VETERINARY TECHNOLOGY - 5108087019

(Offered at OWC)

General Education

ENG 101 Writing I .................................................. 3
PHI 110 Medical Ethics ............................................. 3
MAT 110 Technical Mathematics OR .................................. 3
MAT 150 College Algebra ........................................... (3)
BIO 112 Introduction to Biology ....................................... 3
BIO 113 Introduction to Biology Lab .................................. 1
SOC/BEH 101 Social/Behavioral Sciences .......................... 3
COM 252 Introduction to Interpersonal Communication ............... 3

Subtotal .............................. 19

Required Technical Courses

AGR 240 Introduction to Animal Science .................................. 3
AGR 280 Livestock Management .......................................... 3
VET 110 Introduction to Veterinary Technology ......................... 5
VET 112 Veterinary Microbiology ...................................... 4
VET 114 Animal Anatomy & Physiology ................................ 5
VET 120 Clinical Practicum I ........................................... 2
VET 130 Veterinary Lab Procedures I ................................... 5
VET 210 Pharmacology .................................................. 3
VET 220 Parasitology and Clinical Lab Techniques ................ ... 5
VET 230 Veterinary Lab Procedures II ................................... 5
VET 240 Veterinary Lab Procedures III ................................... 5
VET 250 Clinical Practicum II ........................................... 5

Subtotal ........................................ 50-53

AAS Total ........................................ 69-72

TOTAL CREDITS: 24

VISUAL COMMUNICATION

Five programs are offered under the broader heading of Visual Communication. They are Communication Arts Technology, Design & Technology, Multimedia, Printing, and Visual Arts.

COMMUNICATION ARTS TECHNOLOGY

The Communication Arts Technology program provides students with the knowledge, skills, and a portfolio needed for entry-level employment as a graphic designer, commercial photographer, web designer, videographer, or video editor. These fields involve the use of specialized software combined with creativity, design, and problem solving skills to communicate an effective visual message for TV, web, and interactive media, product packaging, and advertising layout. This program focuses on developing the creativity and software skills necessary to be competitive in these fields. Many courses include hands-on lab hours with one-on-one assistance from the instructors. The program is completed with an internship in the student's specialty field that allows the student to transfer academic skills to a professional environment. Students and graduates of the Communication Arts Technology program have won numerous design, photography, and video awards in the creative industry.

Employment of graphic designers, photographers, web designers, videographers, and video editors is expected to grow as demand for their products continues to increase from advertisers, publishers, video production studios, and computer design firms. Graduates may be employed as graphic designers at newspapers, print shops, advertising agencies, photographic studios, multimedia shops, web design shops, television broadcasting stations, film and video production studios, department stores, corporations or non-profit agencies.

All technical courses must be completed with “C” (2.0) or greater to advance in Visual Communication programs.

ASSOCIATE IN APPLIED SCIENCE

COMMUNICATION ARTS TECHNOLOGY - 5004067019

(Offered at JFC)

General Education Requirements

ENG 101 Writing I .................................................. 3
ART 106 Renaissance Through Modern Art History ..................... 3
MAT 110 Applied Mathematics OR ...................................... 3
MAT 146 Contemporary College Mathematics OR ..................... (3)
MAT 150 College Algebra .................................................. (3)
SOC/BEH 101 Social/Behavioral Sciences ................................ 3
NAT 101 Natural Sciences ................................................ 3

Total General Education Requirements: 15

Core Communication Arts Courses

VCC 150 Mac Basics OR any Computer/Digital Literacy equivalent* ........ 0-3
VCC 100 Introduction to Visual Communication .......................... 3
ART 110 Drawing I .................................................. 3
VCA 132 Illustration for Advertising ...................................... 3
VCA 170 Advertising Design I ........................................... 3
VCA 171 Advertising Design II ......................................... 3
VCA 160 Commercial Photography I ..................................... 3
VCA 161 Commercial Photography II ..................................... 3
VCC 166 Photoshop Basics ............................................... 3

Subtotal ........................................ 24-27

Total Core Communication Arts Courses & Gen Ed: 39-42
Advertising Design Track - 500406701  
(Offered at JFC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>VCA 106 Creative Typographic Design</td>
<td>3</td>
</tr>
<tr>
<td>VCM 115 2-D Animation</td>
<td>3</td>
</tr>
<tr>
<td>VCM 220 Page Design</td>
<td>3</td>
</tr>
<tr>
<td>VCA 270 Advertising Design III</td>
<td>4</td>
</tr>
<tr>
<td>VCA 271 Advertising Design IV</td>
<td>4</td>
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<tr>
<td>VCA 290 Folio Seminar</td>
<td>3</td>
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<tr>
<td>VCA 298 Practicum</td>
<td>4</td>
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</table>

Subtotal 24

Total Credit Hours for Advertising Design Track 63-66

Commercial Photography Track - 500406702  
(Offered at JFC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>VCC 266 Advanced Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>VCM 115 2-D Animation</td>
<td>3</td>
</tr>
<tr>
<td>VCM 220 Page Design</td>
<td>3</td>
</tr>
<tr>
<td>VCA 260 Commercial Photography III</td>
<td>4</td>
</tr>
<tr>
<td>VCA 261 Commercial Photography IV</td>
<td>4</td>
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<tr>
<td>VCA 290 Folio Seminar</td>
<td>3</td>
</tr>
<tr>
<td>VCA 298 Practicum</td>
<td>4</td>
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</table>

Subtotal 24

Total Credit Hours for Commercial Photography Track 63-66

Digital Filmmaking Track - 500406703  
(Offered at JFC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>ENG 207 Beginning Workshop in Imaginative Writing: Scriptwriting</td>
<td>3</td>
</tr>
<tr>
<td>MLIS 120 Music Technology I</td>
<td>3</td>
</tr>
<tr>
<td>THA 126 Acting I: Fundamentals of Acting</td>
<td>3</td>
</tr>
<tr>
<td>VCA 151 Digital Filmmaking I</td>
<td>3</td>
</tr>
<tr>
<td>VCA 152 Digital Filmmaking II</td>
<td>3</td>
</tr>
<tr>
<td>VCA 251 Digital Filmmaking III</td>
<td>3</td>
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<tr>
<td>VCA 252 Digital Filmmaking IV</td>
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<tr>
<td>VCA 290 Folio Seminar</td>
<td>3</td>
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<tr>
<td>VCA 298 Practicum</td>
<td>2</td>
</tr>
</tbody>
</table>

Subtotal 26

Total Credit Hours for Digital Filmmaking Track 65-68

Webpage Design Track - 500406704  
(Offered at JFC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>VCC 205 Introduction to HTML OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 155 Web Page Development</td>
<td>3 (3)</td>
</tr>
<tr>
<td>VCM 220 Page Design</td>
<td>3</td>
</tr>
<tr>
<td>IMD 180 Intermediate Web Design</td>
<td>3</td>
</tr>
<tr>
<td>VCM 115 2D Animation</td>
<td>3</td>
</tr>
<tr>
<td>VCM 230 Advanced Webpage Design</td>
<td>3</td>
</tr>
<tr>
<td>CIT 140 JavaScript I</td>
<td>3</td>
</tr>
<tr>
<td>VCA 290 Folio Seminar</td>
<td>3</td>
</tr>
<tr>
<td>VCA 298 Practicum</td>
<td>4</td>
</tr>
</tbody>
</table>

Subtotal 25

Total Credit Hours for Webpage Design Track 64-67

*Either successfully passing computer competency exam or taking an approved computer/digital literacy course.

Certificates

Multimedia Certificate in Communication Arts - 5004063039  
(Offered at JFC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCC 150 Mac Basics OR Computer/Digital Literacy Equivalent*</td>
<td>0-3</td>
</tr>
<tr>
<td>VCA 170 Advertising Design I</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits for Multimedia Certificate in Communication Arts 18-21

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 option, an Interactive Design option, and a Production Design option, with a core of courses common to all. The core includes general education components essential to a collegiate education and technical courses giving students an introduction to drawing, graphic design concepts, and computer graphics. In addition to core courses, students will take specialty courses for their selected option. Students may also choose to receive a certificate in digital photography.

The Graphic Design track emphasizes several aspects of design in advertising, packaging, print, and corporate identity. Students completing this option will design advertising for newspapers, magazines, promotions, and indoor/outdoor signage. Students will also identify and design a variety of packaging and printed materials, such as labels and boxes, brochures, menus, stationary sets, booklets, and newspapers. Prospective employment opportunities are in advertising agencies, graphic design studios, news media, department stores, and other creative services departments and businesses.

The Interactive Design track provides students with a mix of courses within the visual communication program that focuses on their interests and skills. These courses range from computer animation, webpage design, video editing and creation, computer illustration, print media and production graphics, and/or digital photography. Prospective employment opportunities are in advertising agencies, graphic design studios, news media, department stores, and other creative services departments and businesses.

The Production Design track provides students training in the operation of various print production equipment. Students will learn skills to design and produce a wide variety of printed materials, promotional items, and signage. Students completing this option are prepared for entry-level positions in various types of printing and signage companies.

All technical courses must be completed with "C" (2.0) or greater to advance in all Visual Communication programs.

Associate in Applied Science

Design & Technology – 5004097019  
(Offered at BSC)

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 110 Applied Mathematics OR</td>
<td>3</td>
</tr>
<tr>
<td>Higher Level Quantitative Reasoning</td>
<td>(3)</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101 Writing I</td>
<td>3</td>
</tr>
<tr>
<td>Heritage/Humanities</td>
<td>3</td>
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</table>

Total General Education Requirements 15
**Required Technical Core:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCC 100 Introduction to Visual Communication</td>
<td>3</td>
</tr>
<tr>
<td>VCA 102 Fundamentals of Drawing OR</td>
<td>3</td>
</tr>
<tr>
<td>ART 110 Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>VCC 105 Fundamentals of Typography</td>
<td>3</td>
</tr>
<tr>
<td>VCA 108 Digital Color Theory</td>
<td>3</td>
</tr>
<tr>
<td>VCC 110 Graphic Design Concepts</td>
<td>3</td>
</tr>
<tr>
<td>VCC 115 Strategic Concepts</td>
<td>3</td>
</tr>
<tr>
<td>VCC 125 Introduction to Computer Graphics</td>
<td>3</td>
</tr>
<tr>
<td>VCC 166 Photoshop Basics OR</td>
<td>3</td>
</tr>
<tr>
<td>VCA 280 Professional Portfolio Development</td>
<td>3</td>
</tr>
<tr>
<td>COE 199 Cooperative Education OR</td>
<td>3</td>
</tr>
<tr>
<td>VCA 298 Practicum OR</td>
<td>3</td>
</tr>
<tr>
<td>VCC 297 Internship</td>
<td>3</td>
</tr>
</tbody>
</table>

**Subtotal** 30-33

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**Graphic Design Track – 500409701**

*(Offered at BSC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>VCC 260 Publication Design OR</td>
<td>3</td>
</tr>
<tr>
<td>VCA 240 Package Design</td>
<td>3</td>
</tr>
<tr>
<td>VCA 250 Advertising Design</td>
<td>3</td>
</tr>
<tr>
<td>VCA 255 Corporate Design</td>
<td>3</td>
</tr>
<tr>
<td>VCC 297 Internship</td>
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</table>

**Subtotal** 18

**Total Credit Hours for AAS Graphic Design Track** 63-66

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**Interactive Design Track – 500409702**

*(Offered at BSC)*

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>VCC 212 Vinyl Graphics and Applications</td>
<td>3</td>
</tr>
<tr>
<td>VCC 214 Dye-Sublimation Processes</td>
<td>3</td>
</tr>
<tr>
<td>VCC 216 Pad Printing</td>
<td>3</td>
</tr>
<tr>
<td>VCC 218 Digital Printing</td>
<td>3</td>
</tr>
<tr>
<td>VCP 250 Screen Printing</td>
<td>3</td>
</tr>
<tr>
<td>VCC 125 Introduction to Computer Graphics</td>
<td>3</td>
</tr>
<tr>
<td>VCC 166 Photoshop Basics OR</td>
<td>3</td>
</tr>
<tr>
<td>VCA 280 Professional Portfolio Development</td>
<td>3</td>
</tr>
<tr>
<td>COE 199 Cooperative Education OR</td>
<td>3</td>
</tr>
<tr>
<td>VCC 298 Practicum OR</td>
<td>3</td>
</tr>
<tr>
<td>VCC 297 Internship</td>
<td>3</td>
</tr>
<tr>
<td>VCC 166 Photoshop Basics OR</td>
<td>3</td>
</tr>
<tr>
<td>COE 199 Cooperative Education OR</td>
<td>3</td>
</tr>
<tr>
<td>VCA 298 Practicum OR</td>
<td>3</td>
</tr>
<tr>
<td>VCC 297 Internship</td>
<td>3</td>
</tr>
<tr>
<td>VCC 166 Photoshop Basics OR</td>
<td>3</td>
</tr>
<tr>
<td>COE 199 Cooperative Education OR</td>
<td>3</td>
</tr>
<tr>
<td>VCA 298 Practicum OR</td>
<td>3</td>
</tr>
<tr>
<td>VCC 297 Internship</td>
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</table>

**Subtotal** 18

**Total Credit Hours for AAS Interactive Design Track** 63-66

---

**Production Design Track – 500409703**

*(Offered at BSC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCC 100 Introduction to Visual Communication</td>
<td>3</td>
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<tr>
<td>VCA 102 Fundamentals of Drawing OR</td>
<td>3</td>
</tr>
<tr>
<td>ART 110 Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>VCC 105 Fundamentals of Typography</td>
<td>3</td>
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<tr>
<td>VCA 108 Digital Color Theory</td>
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<tr>
<td>VCC 110 Graphic Design Concepts</td>
<td>3</td>
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<tr>
<td>VCC 115 Strategic Concepts</td>
<td>3</td>
</tr>
<tr>
<td>VCC 125 Introduction to Computer Graphics</td>
<td>3</td>
</tr>
<tr>
<td>VCC 166 Photoshop Basics OR</td>
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</tr>
<tr>
<td>VCA 280 Professional Portfolio Development</td>
<td>3</td>
</tr>
<tr>
<td>COE 199 Cooperative Education OR</td>
<td>3</td>
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<tr>
<td>VCA 298 Practicum OR</td>
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<tr>
<td>VCC 297 Internship</td>
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<td>VCC 297 Internship</td>
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</table>

**Subtotal** 18

**Total Credit Hours for AAS Production Design Track** 63-66

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**Diplomas**

**Graphic Design - 5004094019**

*(Offered at BSC, GTW)*

**Required General Education**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Written Communication OR</td>
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<tr>
<td>Oral Communications OR</td>
<td>3</td>
</tr>
<tr>
<td>Humanities/Heritage</td>
<td>3</td>
</tr>
<tr>
<td>Quantitative Reasoning OR</td>
<td>3</td>
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<tr>
<td>Natural Sciences OR</td>
<td>3</td>
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<tr>
<td>Social/Behavioral Sciences</td>
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**Subtotal** 6

**Required Technical Core:**

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<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>VCC 100 Introduction to Visual Communication</td>
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</tr>
<tr>
<td>VCA 102 Fundamentals of Drawing OR</td>
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</table>

**ART 110 Drawing I**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>VCC 105 Fundamentals of Typography</td>
<td>3</td>
</tr>
<tr>
<td>VCA 108 Digital Color Theory</td>
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<td>VCC 110 Graphic Design Concepts</td>
<td>3</td>
</tr>
<tr>
<td>VCC 115 Strategic Concepts</td>
<td>3</td>
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<tr>
<td>VCC 125 Introduction to Computer Graphics</td>
<td>3</td>
</tr>
<tr>
<td>VCC 166 Photoshop Basics OR</td>
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<tr>
<td>VCA 280 Professional Portfolio Development</td>
<td>3</td>
</tr>
<tr>
<td>COE 199 Cooperative Education OR</td>
<td>3</td>
</tr>
<tr>
<td>VCA 298 Practicum OR</td>
<td>3</td>
</tr>
<tr>
<td>VCC 297 Internship</td>
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**Subtotal** 30-33

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**Interactive Design – 5004094029**

*(Offered at BSC)*

**Required General Education**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
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<td>Oral Communications OR</td>
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<tr>
<td>Humanities/Heritage</td>
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<tr>
<td>Quantitative Reasoning OR</td>
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<tr>
<td>Natural Sciences OR</td>
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<tr>
<td>Social/Behavioral Sciences</td>
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**Subtotal** 6

**Technical or Support Courses:**

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</tr>
<tr>
<td>VCA 102 Fundamentals of Drawing OR</td>
<td>3</td>
</tr>
<tr>
<td>ART 110 Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>VCC 105 Fundamentals of Typography</td>
<td>3</td>
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<tr>
<td>VCA 108 Digital Color Theory</td>
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<td>VCC 110 Graphic Design Concepts</td>
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<tr>
<td>VCC 115 Strategic Concepts</td>
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</tr>
<tr>
<td>VCC 125 Introduction to Computer Graphics</td>
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<tr>
<td>VCC 166 Photoshop Basics OR</td>
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<tr>
<td>VCA 280 Professional Portfolio Development</td>
<td>3</td>
</tr>
<tr>
<td>COE 199 Cooperative Education OR</td>
<td>3</td>
</tr>
<tr>
<td>VCA 298 Practicum OR</td>
<td>3</td>
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<tr>
<td>VCC 297 Internship</td>
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<td>VCC 297 Internship</td>
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</tbody>
</table>

**Subtotal** 18

**Total Credits for Interactive Design Diploma** 54-57

---

**Production Design – 5004094039**

*(Offered at BSC)*

**Required General Education**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Written Communication OR</td>
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<tr>
<td>Oral Communications OR</td>
<td>3</td>
</tr>
<tr>
<td>Humanities/Heritage</td>
<td>3</td>
</tr>
<tr>
<td>Quantitative Reasoning OR</td>
<td>3</td>
</tr>
<tr>
<td>Natural Sciences OR</td>
<td>3</td>
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<tr>
<td>Social/Behavioral Sciences</td>
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</table>

**Subtotal** 6

**Technical or Support Courses:**

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>VCC 100 Introduction to Visual Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

**Subtotal** 3
Choose two (2) approved electives from the following list:

- VCC 212 Vinyl Graphics and Applications
- VCC 214 Dye-Sublimation Process
- VCC 216 Pad Printing

*Approved Technical Electives include any VCA, VCC, VCM, or VCP courses, and the following IMD courses: IMD 133, IMD 180, IMD 230, IMD 232, IMD 240, IMD 250, IMD 255, and IMD 258.

**Visual Communication: Multimedia**

The Visual Communication: Multimedia Track provides students the skills necessary to prepare and produce multimedia presentations, web sites, animations, audio/video presentations, etc. In order to advance in a Visual Communication: Multimedia (VCM) course, a student must make a letter grade of “C” or better.

**Associate in Applied Science**

**Multimedia - 1003047019**

(Offered at HZC, WKC)

**General Education Requirements:**

- Quantitative Reasoning ........................................... 3
- Natural Sciences .................................................. 3
- Social/Behavioral Sciences ...................................... 3
- Heritage/Humanities ............................................. 3
- Writing I ............................................................ 3

**Technical Core**

- VCC 100 Introduction to Visual Communication .................. 3
- VCC 105 Fundamentals of Typography ............................ 3
- VCC 110 Graphic Design Concepts ............................... 3
- VCC 115 Strategic Concepts ...................................... 3
- VCC 125 Introduction to Computer Graphics .................... 3
- VCC 150 Mac Basics ................................................. 3
- VCC 166 Photoshop Basics ........................................ 3
- VCC 200 Computer Illustration ................................... 3
- VCA 108 Digital Color Theory .................................... 3
- VCA 280 Professional Portfolio Development .................. 3
- COE 199 Cooperative Education OR Practicum ................ 3

**Total Credits for AAS: Multimedia - Animation Track**

66

**Web Design Track - 100304702**

(Offered at HZC, WKC)

- VCM 115 2-D Animation ........................................... 3
- VCM 230 Webpage Design ......................................... 3
- VCM 225 Advanced Webpage Design ............................. 3

**Total Credits for AAS: Multimedia - Web Design Track**

66
Digital Design Track - 100304703
(Offered at HZC, WKC)

VCC 210 Advanced Computer Illustration 3
VCC 220 InDesign Basics 3
VCC 266 Advanced Photoshop 3
VCM 115 Approve Technical Electives 9
Subtotal 18

Total Credits for AAS: Multimedia - Digital Design Track 66

Video Production Track - 100304705
(Offered at HZC, WKC)

VCM 115 2-D Animation 3
VCM 125 Foundations of Video Production 3
VCM 140 Digital Video 3
VCM 215 After Effects 3
VCM 240 Advanced Digital Video 3
VCM 220 InDesign Basics 3
Subtotal 18

Total Credits for AAS: Multimedia - Video Production Track 66

Multimedia Track – 100304706
(Offered at HZC, WKC)

VCC 220 InDesign Basics 3
VCC 266 Advanced Photoshop 3
VCM 115 2-D Animation 3
VCM 140 Digital Video 3
VCM 220 Webpage Design 3
VCM 220 Approve Technical Electives 3
Subtotal 18

Total Credits for AAS: Multimedia – Multimedia Track 66

Diploma

Multimedia - 1003044019
(Offered at WKC)

General Education Requirements \n
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

Technical or Support Courses 

VCC 100 Introduction to Visual Communication 3
VCC 105 Fundamentals of Typograhpy 3
VCC 110 Graphic Design Concepts 3
VCC 115 Strategic Concepts 3
VCC 125 Introduction to Computer Graphics 3
VCC 150 Mac Basics 3
VCC 166 Photoshop Basics 3
VCC 200 Computer Illustration 3
VCA 108 Digital Color Theory 3
VCA 280 Professional Portfolio Development 3
coe 199 Cooperative Education OR 3
VCC 297 Internship OR……………………………… (3)
VCC 298 Practicum…………………………………… (3)
Subtotal 33

Animation Track - 100304403
(Offered at WKC)

VCM 115 2-D Animation 3
VCM 210 3-D Animation 3
VCM 215 After Effects 3
VCM 225 Advanced 3-D Animation 3
VCM 220 InDesign Basics 3
VCM 220 Approve Technical Electives 6
Subtotal 18

Total for Animation Track 57

Web Design Track - 100304402
(Offered at WKC)

VCM 115 2-D Animation 3
VCM 220 Webpage Design 3
VCM 230 Advanced Webpage Design 3
VCM 220 Approve Technical Electives 9
Subtotal 18

Total for Web Design Track 57

Digital Design Track - 100304404
(Offered at WKC)

VCC 210 Advanced Computer Illustration 3
VCC 220 InDesign Basics 3
VCC 266 Advanced Photoshop 3
VCM 115 Approve Technical Electives 9
Subtotal 18

Total for Digital Design Diploma 57

Video Production Track - 100304406
(Offered at WKC)

VCM 115 2-D Animation 3
VCM 125 Foundations of Video Production 3
VCM 140 Digital Video 3
VCM 215 After Effects 3
VCM 240 Advanced Digital Video 3
VCM 220 Approve Technical Electives 3
Subtotal 18

Total for Audio/Video Track 57

Multimedia Track – 100304401
(Offered at WKC)

VCC 220 InDesign Basics 3
VCC 266 Advanced Photoshop 3
VCM 115 2-D Animation 3
VCM 140 Digital Video 3
VCM 215 After Effects 3
VCM 240 Advanced Digital Video 3
VCM 220 Approve Technical Electives 3
Subtotal 18

Total Credits for Multimedia Track 57

Certificates

Animation Track - 100304302
(Offered at , JFC, SMC, WKC)

VCA 108 Digital Color Theory 3
VCC 100 Introduction to Visual Communication 3
VCC 105 Fundamentals of Typograhpy 3
VCC 110 Graphic Design Concepts 3
VCC 125 Introduction to Computer Graphics 3
VCC 150 Mac Basics 3
VCC 166 Photoshop Basics 3
VCC 200 Computer Illustration 3
VCM 115 2-D Animation 3
VCM 210 3-D Animation 3
Total 30
## Visual Communication: Printing

Printing is an option under the broader heading of Visual Communication. The Digital Production Artist curriculum emphasizes technical competence to better prepare students for successful careers in designing and preparing artwork for the print media. Laboratory experiences in page layout, computer illustration, photo imaging, and PDF files are combined with foundation courses in design. All technical courses must be completed with ‘C’ (2.0) or greater to advance in all Visual Communication programs. Associate in Applied Science

### General Education Requirements

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<tr>
<th>Course</th>
<th>Requirement</th>
<th>Credits</th>
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<td>ENG 101</td>
<td>Writing I</td>
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### Required Core:

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<td>VCC 108</td>
<td>Digital Color Theory</td>
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<td>VCA 120</td>
<td>Digital Photography</td>
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<td>VCC 100</td>
<td>Introduction to Visual Communication</td>
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<td>VCC 105</td>
<td>Fundamentals of Typography</td>
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<td>VCC 105</td>
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<td>VCC 166</td>
<td>Photoshop Basics</td>
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<td>VCC 200</td>
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<td>InDesign Basics</td>
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<tr>
<td>VCC 230</td>
<td>Advanced InDesign Basics</td>
<td>3</td>
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<tr>
<td>VCC 266</td>
<td>Advanced Photoshop</td>
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<td>VCC 270</td>
<td>Acrobat Basics</td>
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<td>VCP 285</td>
<td>Electronic Prepress</td>
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<td>COE 199</td>
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<td>VCC 297</td>
<td>Internship OR</td>
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<td>VCC 298</td>
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</table>

**Total for AAS Visual Communication:**

- **Printing - Digital Production Artist:** 60-63

### Diplomas

**Digital Production Artist - 1003014019**

(Offered at BSC, JFC, SMC)

### General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
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<tbody>
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<td>Oral Communications OR</td>
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<td>Humanities/Heritage</td>
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<td>Quantitative Reasoning OR</td>
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<td></td>
<td>Natural Sciences</td>
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<tr>
<td></td>
<td>Social/Behavioral Sciences</td>
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<td><strong>Subtotal</strong></td>
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</table>

### Technical or Support Courses

<table>
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<tr>
<th>Course</th>
<th>Requirement</th>
<th>Credits</th>
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<tbody>
<tr>
<td>VCA 108</td>
<td>Digital Literacy</td>
<td>0-3</td>
</tr>
<tr>
<td>VCC 108</td>
<td>Digital Color Theory</td>
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</tr>
<tr>
<td>VCA 120</td>
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<tr>
<td>VCC 100</td>
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<tr>
<td>VCC 105</td>
<td>Fundamentals of Typography</td>
<td>3</td>
</tr>
<tr>
<td>VCC 166</td>
<td>Photoshop Basics</td>
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<tr>
<td>VCC 200</td>
<td>Computer Illustration</td>
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<tr>
<td>VCC 220</td>
<td>InDesign Basics</td>
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</tr>
<tr>
<td>VCC 230</td>
<td>Advanced InDesign Basics</td>
<td>3</td>
</tr>
<tr>
<td>VCC 266</td>
<td>Advanced Photoshop</td>
<td>3</td>
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</tbody>
</table>
Approved Art History Course
ART 106 Renaissance through Modern Art History OR
ART 105 Ancient through Medieval Art History OR
2-Dimensional Art Electives
Approved Elective
Total 42-45

Total for Digital Production Artist Diploma 48-51

Certificates

Digital Production Assistant - 1003013019
(Offered at BSC, JFC, 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 Elective ................................................................ 3
Total 15

Digital Imaging Assistant - 1003013059
(Offered at BSC, SMC, WKC)

Technical or Support Courses
VCC 166 Photoshop Basics ............................................. 3
VCA 120 Digital Photography ........................................... 3
Approved Electives ........................................................ 6
Total 12

Visual Communication: Visual Arts

Students desiring certificates in two-dimensional arts (such as painting or photography), or three-dimensional arts (such as sculpture or ceramics), may select this avenue and/or may participate in the full degree concurrently. The certificates are designed to meet the needs of the many non-traditional and part-time students and artisans of Kentucky. The certificate option will also help introduce the program to students who are not immediately willing to commit to a degree program but whom still desire professional training in the visual arts.

Certificates

2-Dimensional Studies - 5007063019
(Offered at JFC)

ART 110 Drawing I .................................................................. 3
ART 112 2-Dimensional Design ............................................. 3
ART 105 Ancient through Medieval Art History OR .................. 3
ART 106 Renaissance through Modern Art History OR
Approved Art History Course
2-Dimensional Art Electives ................................................ 9
Total 2-Dimensional Studies Certificate 18

3-Dimensional Studies - 5007063029
(Offered at JFC)

ART 110 Drawing I .................................................................. 3
ART 113 3-Dimensional Design ............................................ 3
ART 105 Ancient through Medieval Art History OR .................. 3
ART 106 Renaissance through Modern Art History OR
Approved Art History Course
3-Dimensional Art Electives ................................................ 9
Total 3-Dimensional Studies Certificate 18

Volumetric Medical Imaging

The Volumetric Medical Imaging (VMI) Certificate is designed for students who are certified radiologic technologists. Students will learn to identify anatomical features in cross section and volume, reconstruct volumetric data from 2D radiological data, recognize pathologic anatomy and manipulate volumes for physicians to review. Graduates will be qualified to seek employment in radiology departments of hospitals or with private companies who contract this service. Academic Program Coordinator permission is required to enter the certificate program.

Prerequisites: Basic computer literacy, such as CIS 100 or equivalent, BIO 137, 139.

Certificate

Volumetric Medical Imaging - 5109113019
(Offered at JFC)

BIO 137 Human Anatomy and Physiology I* ......................... 4
BIO 139 Human Anatomy and Physiology II* ....................... 4
VMI 200 Sectional Anatomy & Pathology I .............................. 4
VMI 201 Sectional Anatomy & Pathology II ............................ 4
VMI 210 Volumetric Medical Imaging I ................................. 4
VMI 211 Volumetric Medical Imaging II ................................ 4
Total Credits 24

* BIO 137 & 139 must have been completed within the last 10 years.

Welding Technology

The Welding Technology Program is dedicated to welding education, technology and student success. Students in this program will learn various welding techniques, careers and the skills needed to be successful in the Welding Technology field. Welding occupations are primarily concerned with joining, surfacing, or repairing structures or parts made of metal or other weldable materials. The skills and knowledge needed to determine the appropriate welding technique required for a specific project and to successfully perform that technique are gained through course work and practical experience. The program offers a wide range of credentials including the Associate in Applied Science Degree, Diploma, and eleven certificates in Welding Technology.

Associate in Applied Science

Welding Technology - 4805087019
(Offered at BLC, BSC, ELC, JFC)

ENG 101 Writing I .............................................................. 3
MAT 110 Applied Mathematics OR ................................. 3
MAT 116 Technical Mathematics OR ................................... (3)
MAT 146 Contemporary College Mathematics OR ................ (3)
MAT 150 College Algebra OR ........................................... (3)
MA 109 College Algebra .................................................. (3)
BIO 137, 139 Human Anatomy and Physiology I* ............... 4
Heritage/Humanities ....................................................... (3)
Natural Sciences OR ...................................................... (3)
Recommended courses of:
Introductory Physics I AND ............................................ (3)
Introductory Physics Lab I ............................................. (1)
General Psychology OR ............................................... 3
SOC 101 Introduction to Sociology .................................... (3)
COM 252 Introduction to Interpersonal Communication OR .... (3)
COM 181 Basic Public Speaking ....................................... (3)
General Education Total Credits 18-19
**Academic Curricula**

### Diploma

**Combination Welder - 4805084029**

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

- **Required**
  - Computer/Digital Literacy .......................................................... 0-3
  - WLD 100 Oxy-Fuel Systems OR ................................................... 2
  - WLD 110 Cutting Processes .......................................................... (2)
  - WLD 101 Oxy-Fuel Systems Lab OR .............................................. 2
  - WLD 111 Cutting Processes Lab .................................................... (3)
  - WLD 120 Shielded Metal Arc-Welding (SMAW) .................................. 2
  - WLD 121 Shielded Metal Arc-Welding (SMAW) Fillet Lab .................... 3
  - WLD 123 Shielded Metal Arc-Welding (SMAW) Groove with Backing Lab OR .................................................. 3
  - WLD 125 Shielded Metal Arc-Welding (SMAW) Open Groove Lab .......... (3)
  - WLD 130 Gas Tungsten Arc-Welding (GTAW) .................................... 2
  - WLD 131 Gas Tungsten Arc-Welding (GTAW) Fillet Lab ....................... 3
  - WLD 133 Gas Tungsten Arc-Welding (GTAW) Groove Lab ..................... 3
  - WLD 140 Gas Metal Arc Welding (GMAW) .......................................... 2
  - WLD 141 Gas Metal Arc Welding (GMAW) Groove Lab ........................ 3
  - WLD 170 Blueprint Reading for Welding .......................................... 2
  - WLD 171 Blueprint Reading for Welding Lab ..................................... 3
  - WLD 200 Welding Certification ................................................... 2
  - WLD 211 Welding Certification Lab ............................................. 3
  - WLD 298 Welding Practicum ...................................................... 1-4
  - WLD 299 Cooperative Work Experience ....................................... (1-4)
  - Technical Elective ........................................................................ 2-3

**Subtotal** .................................................................................. 41-49

**Total Credits** ........................................................................... 47-55

**Technical Electives:**

- WLD 200 Workplace Principles ...................................................... 3
- WLD 151 Basic Welding A ............................................................... 2
- WLD 161 Submerged Arc Welding .................................................... 1
- WLD 181 Advanced Welding Systems ............................................. 1
- WLD 191 Plasma Arc-Welding Systems .......................................... 1
- WLD 147 Flux Cored Arc Welding ................................................... 1
- WLD 145 Gas Metal Arc Welding Aluminum ..................................... 1
- WLD 251 Welding Automation Lab .................................................. 1
- WLD 253 Pipe Fitting and Template Development Lab ....................... 1
- WLD 229 Shielded Metal Arc Welding Pipe B ................................... 3
- WLD 239 Orbital Tube Welding ...................................................... 1
- WLD 240 Materials Technology ...................................................... 2
- BEX 100 Basic Electricity for Non-Majors ...................................... 3
- BEX 101 Basic Electricity Lab for Non-Majors ................................ 2
- FEX 100 Fundamentals of Electricity for Non-Majors ....................... 3

*This list is not all inclusive. Other courses may be approved at the discretion of the program coordinator.*

### Certificates

- **Welder Helper - 4805083129**
  (Offered at ASC, BLC, BSC, ELC, HFC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
  - WLD 151 Basic Welding A OR ...................................................... 2
  - WLD 120 Shielded Metal Arc Welding (SMAW) AND .......................... (2)
  - WLD 121 Shielded Metal Arc Welding (SMAW) Fillet Lab OR .............. (3)
  - WLD 130 Gas Tungsten Arc-Welding (GTAW) AND ........................... (2)
  - WLD 131 Gas Tungsten Arc-Welding (GTAW) Fillet Lab OR ............... (3)
  - WLD 140 Gas Metal Arc Welding (GMAW) 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 ............................................... (3)
  - IMT 101 Welding for Maintenance Lab ......................................... (2)

**Total Credits** ........................................................................... 2-5

- **Gas Welder - 4805083039**
  (Offered at ASC, BLC, BSC, ELC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
  - WLD 100 Oxy-Fuel Systems ........................................................... 2
  - WLD 101 Oxy-Fuel Systems Lab .................................................... 2

**Total Credits** ........................................................................... 4

- **ARC Cutter - 4805083099**
  (Offered at ASC, BLC, BSC, ELC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)
  - WLD 110 Cutting Processes ........................................................... 2
  - WLD 111 Cutting Processes Lab ..................................................... 3

**Total Credits** ........................................................................... 5

- **Tack Welder - 4805083119**
  (Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
  - WLD 170 Blueprint Reading for Welding .......................................... 2
  - WLD 171 Blueprint Reading for Welding Lab ..................................... 3
  - WLD 151 Basic Welding A OR ...................................................... 2
  - WLD 120 Shielded Metal Arc Welding (SMAW) AND .......................... (2)
  - WLD 121 Shielded Metal Arc Welding (SMAW) Fillet Lab OR .............. (3)
  - WLD 130 Gas Tungsten Arc-Welding (GTAW) AND ........................... (2)
  - WLD 131 Gas Tungsten Arc-Welding (GTAW) Fillet Lab OR ............... (3)
  - WLD 140 Gas Metal Arc Welding (GMAW) AND ................................ (2)
  - WLD 141 Gas Metal Arc Welding (GMAW) Fillet Lab OR ................. (3)
  - WLD 152 Basic Welding B OR ...................................................... (5)

**Total Credits** ........................................................................... 7-10

Note: Computer/Digital literacy must be demonstrated either by competency exam or by successfully completing a computer/digital literacy course.
**Production Line Welder - 4805083059**

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

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</tr>
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<td>WLD 140</td>
<td>Gas Metal Arc Welding (GMAW)</td>
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<td>Gas Metal Arc Welding (GMAW) Fillet Lab</td>
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<td>WLD 100</td>
<td>Oxy-Fuel Systems OR</td>
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<tr>
<td>WLD 110</td>
<td>Cutting Processes</td>
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<td>WLD 101</td>
<td>Oxy-Fuel Systems Lab OR</td>
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<td>WLD 111</td>
<td>Cutting Processes Lab</td>
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<tr>
<td>WLD 120</td>
<td>Shielded Metal Arc-Welding (SMAW)</td>
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<td>WLD 121</td>
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**Total Credits**: 19-20

**ARC Welder - 4805083029**

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

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<tr>
<td>WLD 110</td>
<td>Cutting Processes</td>
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<td>WLD 101</td>
<td>Oxy-Fuel Systems Lab OR</td>
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<td>WLD 111</td>
<td>Cutting Processes Lab</td>
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<tr>
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<td>WLD 121</td>
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<tr>
<td>WLD 123</td>
<td>Shielded Metal Arc-Welding (SMAW) Groove with Backing Lab OR</td>
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<tr>
<td>WLD 225</td>
<td>Shielded Metal Arc-Welding (SMAW) Open Groove Lab</td>
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<td>WLD 130</td>
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<td>WLD 131</td>
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<td>WLD 133</td>
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<tr>
<td>WLD 140</td>
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<tr>
<td>WLD 141</td>
<td>Gas Metal Arc Welding (GMAW) Fillet Lab OR</td>
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<td>WLD 143</td>
<td>Gas Metal Arc Welding (GMAW) Fillet Groove Lab OR</td>
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<tr>
<td>WLD 170</td>
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<tr>
<td>WLD 171</td>
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</table>

**Total Credits**: 24-25

**Pipeline Welder - 4805083109**

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

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tr>
<td>WLD 100</td>
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<td>WLD 110</td>
<td>Cutting Processes</td>
<td>(2)</td>
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<tr>
<td>WLD 101</td>
<td>Oxy-Fuel Systems Lab OR</td>
<td>2</td>
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<td>WLD 111</td>
<td>Cutting Processes Lab</td>
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**Recommended Electives**:

WLD 229 Shielded Metal Arc-Welding (SMAW) Pipe Lab B ........................................... (3)
WLD 237 Gas Tungsten Arc-Welding (GTAW) Pipe Lab B ........................................... (3)
WLD 247 Gas Metal Arc Welding (GMAW) Pipe Lab B ........................................... (3)
WLD 253 Pipe Fitting and Template Development Lab .................................................. (1)

**Total** 29-40

**AWS National Skills Standards Level I - 4805083089**

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

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<td>Oxy-Fuel Systems Lab OR</td>
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<td>Cutting Processes Lab</td>
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<td>WLD 121</td>
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<tr>
<td>WLD 123</td>
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<td>WLD 225</td>
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**Total Credits**: 17-18

**Shielded Metal Arc Welding - 4805083139**

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

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<tr>
<td>WLD 225</td>
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<td>WLD 171</td>
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<td>WLD 172</td>
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<td>WLD 100</td>
<td>Oxy-Fuel Systems OR</td>
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**Total Credits**: 33-34

**Gas Metal Arc Welding - 4805083149**

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

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<tr>
<td>WLD 143</td>
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<td>WLD 245</td>
<td>Gas Metal Arc Welding (GMAW) Pipe Lab A OR</td>
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<td>WLD 147</td>
<td>Flux Cored Arc Welding (FCAW) Lab</td>
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<td>WLD 170</td>
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**Total Credits**: 15-18

**Gas Tungsten Arc Welding - 4805083159**

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

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<td>WLD 131</td>
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<td>WLD 133</td>
<td>Gas Tungsten Arc Welding (GTAW) Groove Lab OR</td>
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<tr>
<td>WLD 235</td>
<td>Gas Tungsten Arc Welding (GTAW) Pipe Lab A</td>
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<tr>
<td>WLD 170</td>
<td>Blueprint Reading for Welding</td>
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<tr>
<td>WLD 171</td>
<td>Blueprint Reading for Welding Lab</td>
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<tr>
<td>WLD 100</td>
<td>Oxy-Fuel Systems OR</td>
<td>2</td>
</tr>
<tr>
<td>WLD 110</td>
<td>Cutting Process</td>
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<td>WLD 101</td>
<td>Oxy-Fuel Systems Lab OR</td>
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<td>WLD 111</td>
<td>Cutting Processes Lab</td>
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**Total Credits**: 17-18
Women’s and Gender Studies

The Women’s and Gender Studies Certificate Program provides an interdisciplinary approach that engages students in exploring and understanding historical and contemporary social issues with a focus on gender. The courses will require students to read, write, and think critically about such issues as identity, sexuality, the media, family, violence, health care, employment/discrimination, political structures, the intersection of gender, race, and poverty and the representation and participation of women on the world stage in artistic and socio-political spheres.

Certificate

Women’s and Gender Studies – 0502073019

(Offered at JFC)

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
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<tbody>
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<td>Introduction to Women’s and Gender Studies in the Social Sciences OR</td>
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<tr>
<td>WGS 201</td>
<td>History of Women’s and Gender Studies in the Arts and Humanities</td>
<td>(3)</td>
</tr>
<tr>
<td>HIS 265</td>
<td>History of American Women from 1920 OR</td>
<td>(3)</td>
</tr>
<tr>
<td>HIS 266</td>
<td>History of American Women from 1920 OR</td>
<td>(3)</td>
</tr>
<tr>
<td>HIS 267</td>
<td>History of America in America</td>
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Note: HIS 265 satisfies general education and cultural studies requirements. HIS 266 and HIS 267 do not meet general education nor cultural studies requirements.

Women’s and Gender Studies Electives: (Required: 6 credits)

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<td>Cultural Diversity in the Modern World</td>
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<tr>
<td>ANT 220</td>
<td>Introduction to Cultural Anthropology</td>
<td>3</td>
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<tr>
<td>BIO 120</td>
<td>Human Ecology</td>
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<tr>
<td>COM 299</td>
<td>Special Topics in Communication: Gender and Communication</td>
<td>3</td>
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<tr>
<td>ENG 233</td>
<td>Literature and Identities: (Sexuality &amp; Representation)</td>
<td>3</td>
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<tr>
<td>ENG 232</td>
<td>Literature and Place (Sub-topic required)</td>
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<tr>
<td>ENG 234</td>
<td>History of Women’s Literature</td>
<td>3</td>
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<tr>
<td>FAM 253</td>
<td>Human Sexuality: Development, Behavior, and Attitudes</td>
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<tr>
<td>FLK 276</td>
<td>Introduction to Folk Studies</td>
<td>3</td>
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<td>FLK 280</td>
<td>Cultural Diversity in the United States</td>
<td>3</td>
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<tr>
<td>GEO 160</td>
<td>Lands and Peoples of the Non-Western World</td>
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<td>GEO 240</td>
<td>Geography and Gender</td>
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<td>HIS 265</td>
<td>History of Women in America</td>
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<td>HIS 266*</td>
<td>History of American Women to 1920*</td>
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<td>HIS 267*</td>
<td>History of American Women from 1920*</td>
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<td>HUM 121</td>
<td>Peace Studies</td>
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<td>PHI 130</td>
<td>Ethics</td>
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<td>PHI 110</td>
<td>Medical Ethics</td>
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<td>REL 101</td>
<td>Introduction to Religious Studies</td>
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<td>SOC 235</td>
<td>Inequality in Society</td>
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<td>SWK 275</td>
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<td>WGS 200*</td>
<td>Introduction to Women’s and Gender Studies in the Social Scien</td>
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<tr>
<td>WGS 201*</td>
<td>History of African American Women in the Arts and Humanities</td>
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<tr>
<td>WGS 202*</td>
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</table>

Wood Manufacturing Technology

(Under Revision)

This diverse program is designed to provide broad-based training for entry-level employees in the secondary wood processing industry. Students are exposed to an array of tasks ranging from product design to installation of finished products including: furniture, cabinetry, and millwork.

Diploma

Wood Technologist - 4807034019

(Offered at JFC)

Required:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>CPU 100</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>DFT 120</td>
<td>Computer Aided Drafting I OR</td>
<td>4</td>
</tr>
<tr>
<td>CAD 100</td>
<td>Introduction to Computer-Aided Design</td>
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<tr>
<td>EFM 100</td>
<td>Personal Financial Management</td>
<td>3</td>
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<tr>
<td>ISX 100</td>
<td>Industrial Safety</td>
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#This course does not meet computer/digital literacy requirements.

Certificates

Cabinetmaker - 4807033019

(Offered at JFC)

Required:

<table>
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<th>Credits</th>
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<tr>
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<td>DFT 120</td>
<td>Computer Aided Drafting I OR</td>
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<tr>
<td>CAD 100</td>
<td>Introduction to Computer-Aided Design</td>
<td>(3)</td>
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<tr>
<td>MAT 110</td>
<td>Applied Mathematics</td>
<td>3</td>
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<tr>
<td>WMT 230</td>
<td>Intermediate Computer Aided Design</td>
<td>2</td>
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<tr>
<td>WMT 230</td>
<td>Introduction to Panel Processing</td>
<td>2</td>
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<tr>
<td>WMT 240</td>
<td>Cabinet Making Technology</td>
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<tr>
<td>WMT 250</td>
<td>Furniture Technology</td>
<td>4</td>
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<td>WMT 260</td>
<td>Millwork Technology</td>
<td>4</td>
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<td>WMT 280</td>
<td>Estimating</td>
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#This course does not meet computer/digital literacy requirements.

Technical Electives:

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<td>Total Credits</td>
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*Curriculum committee in process of changing mathematics requirements.
Digital Cinematic Arts

The Associate in Fine Arts (AFA) in Digital Cinematic Arts degree program is designed for students who plan to transfer to a four-year institution to acquire a Bachelor of Fine Arts in (Digital) Cinematic Arts related fields. The embedded certificate program is designed to accommodate non-degree seeking students that wish to increase their knowledge and skills for the workplace. The program includes standard, transferable general education requirements for students seeking a higher degree. Technical courses in film history, film production techniques, cinematography, digital media, and wruting for film are required in the core. Courses are offered in areas such as screenwriting, digital media design, camera, audio, acting and editing. Students will focus on the application of skills in the production of several finished short films.

Due to the nature of the digital cinematic arts, multiple ways of understanding/communicating are explored and critical competencies like creative problem solving, collaboration, time management and critical thinking are learned and practiced. Upon completion, graduates will be prepared for careers in the growing film industry in Kentucky, transfer to a 4-year institution, and for employment – worldwide – in this growing medium.

Associate in Fine Arts

Digital Cinematic Arts – 5006027029

(Offered at BLC)

General Education Core Requirements 24

<table>
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<tr>
<th>Course</th>
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<td>ENG 102</td>
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<tr>
<td>Oral Communications</td>
<td>3</td>
</tr>
<tr>
<td>Humanities/Heritage</td>
<td>3</td>
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<tr>
<td>MAT 110</td>
<td>3</td>
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<tr>
<td>MAT 146</td>
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<tr>
<td>Contemporary College Mathematics</td>
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Certificate

Zoo Animal Technician - 2607013019

(Offered at JFC)

Total Credits 22-25

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 112</td>
<td>3</td>
</tr>
<tr>
<td>BIO 120</td>
<td>3</td>
</tr>
<tr>
<td>BIO 122</td>
<td>3</td>
</tr>
<tr>
<td>BIO 143</td>
<td>4</td>
</tr>
<tr>
<td>ZOO 293</td>
<td>3-6</td>
</tr>
<tr>
<td>MAT 110</td>
<td>3</td>
</tr>
<tr>
<td>COM 181</td>
<td>3</td>
</tr>
</tbody>
</table>

Associate in Fine Arts

Digital Cinematic Arts

The Zoo Technology program prepares students for entry-level positions at zoos and related occupations. The curriculum gives students a background in writing, computer applications, communication skills, animal biology, conservation biology, applied mathematics, and basic zoo operations.

Certificate

Zoo Animal Technician - 2607013019

(Offered at JFC)

Total Credits 22-25

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 112</td>
<td>3</td>
</tr>
<tr>
<td>BIO 120</td>
<td>3</td>
</tr>
<tr>
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<td>3</td>
</tr>
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<td>BIO 143</td>
<td>4</td>
</tr>
<tr>
<td>ZOO 293</td>
<td>3-6</td>
</tr>
<tr>
<td>MAT 110</td>
<td>3</td>
</tr>
<tr>
<td>COM 181</td>
<td>3</td>
</tr>
</tbody>
</table>

Workplace Safety Specialist

The Workplace Safety Specialist Certificate is designed to prepare and provide a well-rounded base of knowledge essential for success in carrying out effective safety programs for today’s workforce. Professionals who are seeking or are new to safety management occupations are introduced to health and safety regulating agencies, their rules and regulations, compliance standards as well as the personal and professional skills required to administrate safety programs.

Certificate

Workplace Safety Specialist – 1507993010

(Offered at MYC, SEC, WKY)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 288</td>
<td>3</td>
</tr>
<tr>
<td>HSM 100</td>
<td>3</td>
</tr>
<tr>
<td>AHS 140</td>
<td>3</td>
</tr>
<tr>
<td>ISX 100</td>
<td>3</td>
</tr>
<tr>
<td>Total Credits</td>
<td>15-18</td>
</tr>
</tbody>
</table>

Millwork - 4807033039

(Offered at JFC)

Total Credits 27-28

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WMT 200</td>
<td>4</td>
</tr>
<tr>
<td>CAD 200</td>
<td>4</td>
</tr>
<tr>
<td>Total Credits</td>
<td>27-28</td>
</tr>
</tbody>
</table>

Required:

- CPU 100 Introduction To Computers ........................................ 3
- DFT 120 Computer Aided Drafting I OR .................................. 4
- CAD 100 Introduction to Computer-Aided Design ......................... 3
- MAT 110 Applied Mathematics * ........................................... 3
- WMT 110 Technical Drawing And Blueprint Reading ....................... 2
- WMT 120 Wood Product Manufacturing ...................................... 4
- WMT 160 Wood Finishing ...................................................... 2
- WMT 230 Introduction To Panel Processing ................................ 2
- WMT 250 Furniture Technology ............................................. 4
- WMT 280 Estimating .......................................................... 2
- Electives (Technical Course List) ......................................... 2

Technical Electives:

- WMT 250 Advanced Wood Processing .......................................... 4
- WMT 270 Moulder/Grinder Operation .......................................... 2
- Elective (Technical Course List) ............................................ 2

*Curriculum committee is in process of changing mathematics requirements.

Furniture Maker - 4807033029

(Offered at JFC)

Total Credits 15-18

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Commun.</td>
<td>3</td>
</tr>
<tr>
<td>Digital Literacy</td>
<td>0-3</td>
</tr>
<tr>
<td>BAS 288</td>
<td>3</td>
</tr>
<tr>
<td>HSM 100</td>
<td>3</td>
</tr>
<tr>
<td>AHS 140</td>
<td>3</td>
</tr>
<tr>
<td>ISX 100</td>
<td>3</td>
</tr>
<tr>
<td>Total Credits</td>
<td>15-18</td>
</tr>
</tbody>
</table>

Required:

- CPU 100 Introduction To Computers ........................................ 3
- DFT 120 Computer Aided Drafting I OR .................................. 4
- CAD 100 Introduction to Computer-Aided Design ......................... 3
- MAT 110 Applied Mathematics * ........................................... 3
- WMT 110 Technical Drawing And Blueprint Reading ....................... 2
- WMT 120 Wood Product Manufacturing ...................................... 4
- WMT 200 Lumber Grading ...................................................... 2
- WMT 210 Dry Kiln Operation ................................................ 2
- WMT 260 Millwork Technology ................................................ 4
- WMT 270 Moulder/Grinder Operation .......................................... 2
- Elective (Technical Course List) ............................................ 2

Technical Electives:

- All WMT Courses ................................................................. 4
- Intermediate Computer Aided Design ..................................... 4

*Curriculum committee is in process of changing mathematics requirements.
Digital Literacy

0-3

Digital Literacy must be demonstrated either by competency exam or by completing an approved digital literacy course.

Digital Cinematic Arts Core

26

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FILM 112</td>
<td>Filmmaking: Treatment to Short Screen Play</td>
</tr>
<tr>
<td>FILM 122</td>
<td>Filmmaking: Storyboard through Production</td>
</tr>
<tr>
<td>FILM 132</td>
<td>Filmmaking: Editing through Distribution</td>
</tr>
<tr>
<td>FILM 140</td>
<td>Filmmaking: Lab</td>
</tr>
<tr>
<td>FLM 260</td>
<td>Cinematography</td>
</tr>
<tr>
<td>IMD 250</td>
<td>Digital Video Editing I</td>
</tr>
<tr>
<td>FILM 190</td>
<td>Film Boot Camp*</td>
</tr>
<tr>
<td>FILM 299</td>
<td>Special Topics in Film: (Topic)</td>
</tr>
</tbody>
</table>

Concentration (Choose 12 hours from list of approved Digital Cinematic Arts Electives)

12

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FILM 190</td>
<td>Film Boot Camp*</td>
</tr>
<tr>
<td>FILM 210</td>
<td>Screenwriting</td>
</tr>
<tr>
<td>FILM 291</td>
<td>Cinematic Arts Internship</td>
</tr>
<tr>
<td>IMD 115</td>
<td>Introduction to Graphic Design</td>
</tr>
<tr>
<td>IMD 128</td>
<td>Raster Design with Adobe Photoshop</td>
</tr>
<tr>
<td>IMD 228</td>
<td>Advanced Photoshop</td>
</tr>
<tr>
<td>IMD 240</td>
<td>Multimedia Development for the Web</td>
</tr>
<tr>
<td>THA 126</td>
<td>Fundamentals of Acting</td>
</tr>
<tr>
<td>THA 203</td>
<td>Acting for Film</td>
</tr>
</tbody>
</table>

Other courses may be selected with program coordinator permission.

Total 62-65

*FLM 190 can be taken twice for credit. In order for it to count in the core and as an elective, students must pass the course twice for credit.

Certificate

Filmmaking – From Script to Screen – 5006023019

(Offered at BLC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FILM 112</td>
<td>Filmmaking: Treatment to Storyboard</td>
</tr>
<tr>
<td>FILM 122</td>
<td>Filmmaking: Storyboard through Production</td>
</tr>
<tr>
<td>FILM 132</td>
<td>Filmmaking: Editing through Distribution</td>
</tr>
<tr>
<td>FILM 140</td>
<td>Filmmaking: Lab</td>
</tr>
<tr>
<td>THA 126</td>
<td>Acting I OR</td>
</tr>
<tr>
<td>THA 203</td>
<td>Acting for the Camera</td>
</tr>
</tbody>
</table>

Total Credits 17

Theatre Arts

The Associate in Fine Arts (AFA) in Theatre degree program is designed for students who plan to transfer to a four-year institution in order to pursue a BFA in the Theatre Arts and/or acquire credentials for a career in arts-related areas. The program includes general education requirements, Theatre foundation courses in acting and stagecraft, as well as a wide variety of performance and production-related electives. Students will focus on the development of performance skills and a basic knowledge of technical theatre, while participating firsthand in fully realized theatrical productions every semester. Classes will also encourage analytical skills and critical analysis. Students will be encouraged to participate in state and regional theatre auditions and festivals with audition pieces prepared specifically with an eye toward securing professional work.
The Associate in Fine Arts (AFA) in Visual Art degree program is designed for students who plan to transfer to a four-year institution in order to pursue a BFA in the Visual Arts and/or a career in arts-related areas requiring pre-professional credentials. The program includes general education requirements, visual arts foundation courses in drawing, design and art history, as well as a wide variety of studio art electives. Students will focus on the development of artistic skills and a visual vocabulary for personal expression, while exploring both traditional and nontraditional art areas. Classes will also encourage analytical and creative problem-solving skills and experience in both verbal presentation of ideas and critical concepts. A personal portfolio of artwork will be a tangible result of a student completing this program.

### Associate in Fine Arts

**Visual Art - 5007027019**

(Offered at HZC, OWC, WKC)

#### General Education Core Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</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>Oral Communications</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Arts &amp; Humanities</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>(The course chosen to satisfy this requirement must be from a discipline other than the discipline in the Fine Arts Core and/or Concentration) Social/Behavioral Sciences</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Natural Sciences</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Quantitative Reasoning</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td><strong>24</strong></td>
</tr>
</tbody>
</table>

#### Fine Arts Core (Visual Art track)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 105</td>
<td>Ancient through Medieval Art History</td>
<td>3</td>
</tr>
<tr>
<td>ART 106</td>
<td>Renaissance through Modern Art History</td>
<td>3</td>
</tr>
<tr>
<td>ART 110</td>
<td>Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 112</td>
<td>2-Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 113</td>
<td>3-Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 210</td>
<td>Drawing II</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

#### Concentration (Choose 18 hours from the Approved Art Studio Electives) | 18

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 211</td>
<td>Life Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART 220</td>
<td>Painting I</td>
<td>3</td>
</tr>
<tr>
<td>ART 221</td>
<td>Painting II</td>
<td>3</td>
</tr>
<tr>
<td>ART 231</td>
<td>Jewelry/Metals I</td>
<td>3</td>
</tr>
<tr>
<td>ART 232</td>
<td>Jewelry/Metals II</td>
<td>3</td>
</tr>
<tr>
<td>ART 240</td>
<td>Ceramics I</td>
<td>3</td>
</tr>
<tr>
<td>ART 241</td>
<td>Ceramics II</td>
<td>3</td>
</tr>
<tr>
<td>ART 251</td>
<td>Graphic Communication I</td>
<td>3</td>
</tr>
<tr>
<td>ART 252</td>
<td>Typography</td>
<td>3</td>
</tr>
<tr>
<td>ART 253</td>
<td>Graphic Communication II</td>
<td>3</td>
</tr>
<tr>
<td>ART 254</td>
<td>Design Process and Presentation</td>
<td>3</td>
</tr>
<tr>
<td>ART 260</td>
<td>Sculpture I</td>
<td>3</td>
</tr>
<tr>
<td>ART 261</td>
<td>Sculpture II</td>
<td>3</td>
</tr>
<tr>
<td>ART 270</td>
<td>Printmaking I</td>
<td>3</td>
</tr>
<tr>
<td>ART 271</td>
<td>Printmaking II</td>
<td>3</td>
</tr>
<tr>
<td>ART 280</td>
<td>Beginning Film Photography</td>
<td>3</td>
</tr>
<tr>
<td>ART 281</td>
<td>Digital Photography I</td>
<td>3</td>
</tr>
<tr>
<td>ART 282</td>
<td>Digital Photography II</td>
<td>3</td>
</tr>
<tr>
<td>ART 290</td>
<td>Survival Skills for Artists</td>
<td>3</td>
</tr>
<tr>
<td>ART 299</td>
<td>Directed Studies in Art</td>
<td>1-3</td>
</tr>
</tbody>
</table>

#### Summary

- General Education Core Requirements | 24
- Fine Arts Core Requirements | 18
- Concentration (Approved Art Studio Electives) | 18
- **Total** | 60

**Degree requirements:**
- Completion of minimum 60 credit hours; minimum cumulative 2.0 GPA; minimum of 15 credit hours earned at the institution awarding the degree; cultural studies course; and demonstration of computer literacy.

1. Courses chosen to satisfy General Education requirements must be selected from an approved list which may be found in the KCTCS catalog.
2. A course used to fulfill one category cannot be used to fulfill another category.

Transitional courses (courses numbered 001-099) cannot be used to satisfy graduation requirements.
Course prefix/number arranged alphabetically. The course number will appear as 101 ENG on transcripts, student schedules and web-based documents.

Course Title

Course Description summarizes course content. May include information on course components, prerequisites/co-requisites, and other course stipulations.

Course Credit. Variable credit is shown as (1-3).

Unique course identification

Courses are numbered as follows:

001 through 099 - Orientation and developmental courses
100 through 199 - Undergraduate credit
200 through 299 - Undergraduate credit; sophomore classification may be required.

Modular courses have four number or alpha characters with the first three numbers representing the parent course, e.g., BAS 1601 is the first module of BAS 160. The last character denotes the sequence of the module with either a numerical or alpha character. Course descriptions are published for recently approved courses, and those that have been offered in the preceding two-year period. Other active courses may be offered that are not published in the printed catalog.

A&S Arts & Sciences

A&S 100(1-6) Course ID: 002195
Special Introductory Course
This course permits the offering at the introductory level of special courses of an interdisciplinary, topical, or experimental nature. Each proposal must be approved by the Dean of the College of Arts and Sciences. A particular title may be offered at most twice under the A&S 100 number. Students may not repeat under the same title. May be repeated to a maximum of 12 credits. Pre-requisite: Will be set by instructor.
Components: Lecture
Attributes: Other

AAD Arts Administration

AAD 200(3) Course ID: 004620
Fundamentals of Arts Administration
Arts administration, planning, evaluation, funding and finance in arts organizations are emphasized. Students are engaged in arts management projects related to career goals. Lecture: 3 credits (45 contact hours). Pre-requisite: AAD 100, ENG 102.
Components: Lecture
Attributes: Technical

ACC Accounting

ACC 201(3) Course ID: 000927
Financial Accounting
Presents generally accepted accounting principles used for the measurement and reporting of financial information in the financial statements. Pre-requisite: Sophomore standing (30 credit hours) or Consent of 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 2021(1) Course ID: 005949
Cost Terms Concepts, and Classifications
Introduces the student to managerial accounting, differentiates between financial and managerial accounting, and presents cost and cost behaviors. Pre-requisite: ACC 201 or ACT 101 and ACT 102. Lecture: 1 credit (15 contact hours).
Components: Lecture

ACC 2022(1) Course ID: 005950
Planning and Control
Components: Lecture

ACC 2023(1) Course ID: 005951
Using Cost Data in Decision Making
Introduces the student to master and capital budgets. Pre-requisite: ACC 2022. Lecture: 1 credit (15 contact hours).
Components: Lecture

ACH Architectural Technology

ACH 100(1-6) 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 understanding of architectural practice, and related discipline coordination. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours). Pre-requisite: ACH 100 or consent of instructor.
Components: Laboratory, Lecture
Attributes: Technical

ACH 160(3) Course ID: 004683
Building Materials and Construction I
The essentials of the theory of selected building materials (Construction Specifications Institute, Divisions 7-16) and their assembly in appropriate systems are presented with particular attention to component selection and behavior under various loads, climatic conditions, and fire. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 161(3) Course ID: 004684
Building Materials and Construction II
The essentials of the theory of selected building materials (Construction Specifications Institute, Divisions 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 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 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, color, and creative writing. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (120 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ACH 195(3) Course ID: 004856
Computer Aided Drafting I
Students learn how computer hardware and software are used in preparing architectural documents. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Computer Literacy, Technical

ACH 198(1 - 3) Course ID: 015986
Instructor Consent Required
Practicum in Architectural Technology
Provides supervised, on-the-job work experience related to the student’s educational objectives; students who participate in the practicum do not receive compensation. Pre-requisite: Completion of a minimum of 12 hours in Architectural Technology (ACH) courses with a minimum GPA of 2.0 in all courses. Practicum: 1.0-3.0 credits (45-120 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: 004699
Structures
Students study structural materials and systems including the design of simple structural components. Pre-requisite: ACH 175 and MAH 125, or consent of instructor.
Components: Lecture
Attributes: Technical

ACH 250(3) Course ID: 004690
Construction Documents IV
This is the fourth course of a four-semester studio sequence. Students prepare a set of advanced construction documents using current computer-aided drafting techniques. Emphasis will be placed on design principles and site development for a commercial construction project. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours). Pre-requisite: ACH 200 or consent of instructor.
Components: Laboratory, Lecture
Attributes: Technical

ACH 260(3) Course ID: 004691
Office Practice
This course is intended to serve as a capstone course in the Architectural Technology program. Emphasis is placed on preparing students for the workplace by focusing on the professional, legal, and business aspects of the architectural and construction industries. Case studies are reviewed and projects are prepared by students with the goal of introducing them to a broader set of circumstances that affect how decisions are made in the practice of architecture. Lecture: 3 credits (45 contact hours). Pre-requisite: ACH 110 and ACH 200 or equivalent.
Components: Lecture
Attributes: Technical

ACH 275(3) Course ID: 004692
Mechanical and Electrical Systems
Students engage in a qualitative and quantitative study of environmental control systems 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: Lecture
Attributes: Technical

ACH 285(3) Course ID: 005464
Computer-Aided Drafting II
Students learn how to modify selected computer aided drafting software to enhance construction document production. Integration of other software will also be discussed. Pre-requisite: ACH 185 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 290(3) Course ID: 004694
Building Codes I
Students will analyze the content and format of current building codes. The necessity for building codes, problems in interpretation and application as well as legal aspects will be discussed. The main objective is to familiarize students with the basic provisions and procedures associated with building code administration. Pre-requisite: ACH 150 and ACH 160, or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 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
**Course Descriptions**

**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 101(2) Course ID: 000950**

**Refrigeration Fundamentals Lab**

Introduces fundamentals of refrigeration including environmental issues associated with HVAC. Emphasizes refrigerant piping and fundamentals of refrigeration including environmental issues associated with HVAC. Co-requisite: ACR 100. Lecture: 3 credits (45 contact hours).

**Components: Lecture 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 credits (45 contact hours).

**Components: Lecture Attributes: Technical**

**ACR 207(5) Course ID: 007377**

**Commercial HVAC Systems**

Develops techniques for servicing, troubleshooting and performing preventive maintenance on commercial HVAC systems. Emphasizes electrical and mechanical safety. Covers tools and instruments used in installing, troubleshooting, and preforming preventive maintenance on commercial HVAC systems. Pre-requisite: (ACR 100 and ACR 101 and ACR 102 and ACR 103) or Consent of the Instructor. Lecture/Lab: 5.0 credits (105 contact hours).

**Components: Lecture Attributes: Technical**

**ACR 208(4) Course ID: 007378**

**Chillers**

Develops techniques for servicing, troubleshooting and performing preventive maintenance on high-pressure, low-pressure and absorption chilled water systems. Emphasizes electrical and safety. Covers proper tool and instrument use and practices for the efficient applications on chilled water systems used in commercial and industrial settings. Pre-requisite: ACR 100 and ACR 102 and ACR 103. Lecture/Lab: 4.0 credits (75 contact hours).

**Components: Lecture Attributes: Technical**

**ACR 290(4) Course ID: 007379**

**Manual N Commercial Load Calculation and Design**

Covers fundamentals needed to calculate heat gain and heat loss for commercial buildings. Introduces design conditions, solar heat gain, ventilation, internal heat gains, psychrometrics and distribution systems for air conditioning and heating, thereby determining the correct size of equipment needed for different commercial buildings. Lecture: 4.0 credits (60 contact hours).

**Components: Lecture Attributes: Technical**

**ACR 210(3) Course ID: 000962**

**Ice Machines**

Introduces operation, checking, adjusting and troubleshooting commercial ice makers. Covers adjusting, checking, cleaning and troubleshooting commercial ice machines. Pre-requisite: (ACR 100 and ACR 102) with a grade of C or greater. Lecture: 3 credits (45 contact hours).

**Components: Lecture Attributes: Technical**

**ACR 250(3) Course ID: 000963**

**Cooling and Dehumidification**

Explains working characteristics of air conditioning units with air and water cooled condensers. Covers line, low voltage and pneumatic controls. Pre-requisite: (ACR 100 & ACR 101) with a grade of C or greater. Co-requisite: ACR 251. Lecture: 3 credits (45 contact hours).

**Components: Lecture Attributes: Technical**

**ACR 251(2) Course ID: 000964**

**Cooling and Dehumidification Lab**

Prepares the student for installing, servicing, and troubleshooting air conditioning systems with water and air cooled condensers and line and low voltage. Pre-requisite: (ACR 100 & ACR 101) with a grade of C or greater. Co-requisite: ACR 250. Laboratory: 2 credits (60 contact hours).

**Components: Laboratory Attributes: Technical**

**ACR 260(3) Course ID: 000965**

**Heating and Humidification**

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 & 403 or EET 154 & 155 or ETT 112 & 113 or IMT 110 & 111 or consent from the instructor. Co-requisite: ACR 262. Lecture: 2 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 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
Air Conditioning and Refrigeration
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. Prepares the student to pass the Kentucky Journeyman HVAC licensing exam. (This class should be taken at the end of the program.) Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical
ACR 291(1) Course ID: 000970
Instructor Consent Required
Special Problems I
A course designed for the student who has demonstrated specific special needs. Pre-requisite: Permission of Instructor
Components: Laboratory
Attributes: Technical
ACR 293(2) Course ID: 000971
Instructor Consent Required
Special Problems II
A course designed for the student who has demonstrated specific special needs. Pre-requisite: Permission of Instructor
Components: Laboratory
Attributes: Technical
ACR 295(3) Course ID: 000972
Instructor Consent Required
Special Problems III
A course designed for the student who has demonstrated specific special needs. Pre-requisite: Permission of Instructor
Components: Laboratory
Attributes: Technical
ACR 298(2) Course ID: 000973
Instructor Consent Required
Practicum
Practicum provides supervised on-the-job work experience related to the student's educational objectives. Students participating in Practicum do not receive compensation. Pre-requisite: Permission of the instructor.
Components: Practicum
Attributes: Technical
ACR 299(2) Course ID: 000974
Instructor Consent Required
Cooperative Education Program
Co-op provides supervised on-the-job work experience related to the student's educational objectives. Students participating in the Cooperative Education program receive compensation for their work. Pre-requisite: Permission of the Instructor.
Components: Co-Op
Attributes: Technical
ACT Accounting
ACT 101(3) Course ID: 000004
Fundamentals of Accounting I
Students are introduced to accounting terminology and general theoretical principles. The major focus of the course is on the accounting cycle and the communication of financial information to decision-makers. Lecture: 3 credits (45 contact hours).
Components: Lecture
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 186(3) Course ID: 000007
Payroll Accounting
Introduces the design and implementation of modern payroll systems. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
ACT 328(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 295(3) Course ID: 000016
Corporate and Partnership Taxation
Emphasizes the study of federal and state tax laws applying to corporations, partnerships, and other entities. Pre-requisite: ACT 281 or consent of instructor. Lecture: 3.0 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 1861(0.5) Course ID: 006117
Payroll Records
Introduces the records required for today's payroll or human resource manager. Covers the relationship between Payroll and Human Resources and their common laws. Concludes with salary computations and methods to compute Gross Payroll. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture
ACT 1862(0.5) Course ID: 006118
Payroll Taxes
Covers federal and state tax withholding and employer-side payroll expenses. Pre-requisite: ACT 1861. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture
ACT 1863(0.5) Course ID: 006119
Accounting for Payroll
Covers federal and state unemployment laws and accounting for payroll. Pre-requisite: ACT 1961. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture
ACT 1864(1) Course ID: 006120
Manual Payroll
Requires the student to complete a Quarterly Payroll Simulation. Pre-requisite: ACT 1862 & 1963. Lecture: 1 credit (15 contact hours).
Components: Lecture
ACT 1865(0.5) Course ID: 006121
Computerized Payroll
Requires the student to complete a Computerized Payroll Simulation. Pre-requisite: ACT 1862 & 1963. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture
The student may be provided with a work experience alternating between periods of off campus and work in a classroom laboratory setting. Co-requisite: ADX 120. Lab: 2.0 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

AET Aeronautics

AER 110(3) Course ID: 006516 Fundamentals of Aerodynamics/Private Pilot Ground School

Introduces the concepts of aerodynamics aircraft systems, aeronautical decision making (ADM), applicable federal regulations, flight planning and aeronautical charts, meteorology, flight navigation, and weight and balance. Requires no previous aviation experience and is formatted to take “zero” time students and ready them for the national private pilot examination. Lecture: 3.0 credit hours (45 contact hours).

Components: Lecture
Attributes: Pilot Course, Technical

AET Applied Engineering Technology

AET 100(1) Course ID: 063589 Introduction to Lean Systems

Presents methodologies for Lean systems to include Lean Manufacturing basics and tools, Lean implementation, Lean measures, Six-Sigma, and Lean supply chain design and management. Lecture: 1 credit (15 contact hours).

Components: Lecture
Attributes: Technical

AET 110(4) Course ID: 006380 Introduction to Circuit Analysis

Covers basic electrical components as well as DC/AC circuit configurations; introduces the theory and operation of solid state devices such as diodes, BJTs, FETS, and operational amplifiers; emphasizes circuit construction, analysis, and troubleshooting. Co-requisite: MT 125 or Consent of Instructor. Lecture/Lab: 4 credits (75 contact hours).

Components: Lecture
Attributes: Technical

AET 112(4) Course ID: 006381 Alternative Energy Fundamentals

Addresses topics of alternative energy sources including passive and active solar systems, fuel cells, hydroelectric power, geothermal heat transfer, photovoltaic systems, biofuels, and wind energy. Pre-requisite: AET 102. Lecture/ Lab: 4 credits (75 contact hours).

Components: Lecture
Attributes: Technical

AET 114(4) Course ID: 006362 Solar and Wind Energy Generation

Introduces the methods and equipment necessary for the production of electrical energy by alternative means to include photovoltaic systems, wind turbines and solar water heating. Pre-requisite: AET 110 or consent of instructor. Lecture/Lab: 4 credits (75 contact hours).

Components: Lecture
Attributes: Technical

AET 120(4) Course ID: 006363 Power Electronics

Introduces the circuitry and components used to convert the power generated by alternative methods to line voltage and current values commonly used in residential and commercial electrical installations; includes Thyristor theory and application, inverter types and application, and battery charging and maintenance. Pre-requisite: AET 110 or Consent of instructor. Lecture/Lab: 4 credits (90 contact hours).

Components: Lecture
Attributes: Technical

AET 130(3) Course ID: 006364 Industrial Sensors

Covers various types of industrial sensors and optoelectronic devices. Pre-requisite: AET 110 or Consent of Instructor. Lecture: 3 credits (60 contact hours).

Components: Lecture
Attributes: Technical

AET 140(4) Course ID: 006365 Industrial Equipment Maintenance

Covers maintenance techniques and practices commonly found in a wide variety of industrial settings to include areas such as lubrication, mechanical drives, bearings, and safe working practices. Lecture/Lab: 4 credits (90 contact hours).

Components: Lecture
Attributes: Technical

AET 150(4) Course ID: 006366 Advanced Circuit Analysis

Introduces the more advanced concepts of DC and AC circuits. Topics include Kirchhoff’s Laws, network theorems, Delta-Y conversion, reactive circuits, complex impedances, Z-matching, resonance, and LC tank loading effect. Pre-requisite: AET 110 or Consent of Instructor. Lecture/Lab: 4 credits (75 contact hours).

Components: Lecture
Attributes: Technical

AET 160(4) Course ID: 006367 Industrial Controls Electronics

Introduces the concepts of industrial power control to include solid state devices, controllers, single and poly-phase rectification, and DC power supplies. Pre-requisite: AET 110 or Consent of Instructor. Lecture/Lab: 4 credits (75 contact hours).

Components: Lecture
Attributes: Technical

AET 170(4) Course ID: 006368 Digital Circuits and Concepts

Covers the basics of digital electronics to include logic gates, number systems, Boolean algebra, Karnaugh mapping, registers, bi-stable circuits, and basic arithmetic circuits. Pre-requisite: AET 110 or consent of instructor. Lecture/Lab: 4 credits (75 contact hours).

Components: Lecture
Attributes: Technical

AET 180(3) Course ID: 006369 Industrial Computer Architecture

Introduces the basic layout of industrial computers as preparatory course leading into the more advanced PLC’s; includes binary and hexadecimal number systems, bus oriented computer systems, I/O scan, interfacing considerations, and introduction to programmable controllers. Pre-requisite: AET 110 or Consent of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical
AET 190(4)  Course ID: 006370
Industrial Computer Programming Concepts
Covers programming concepts specifically directed toward industrial programmable devices such as PLCs. Pre-requisite: Consent of instructor. Lecture/Lab: 4 credits (75 contact hours).
Components: Lecture
Attributes: Technical

AET 200(4)  Course ID: 006371
Integrated Circuits
Focuses on integrated circuits as they apply to linear and non-linear applications to include integration techniques, operational amplifiers, linear voltage amplifiers, waveform generators, comparators, active filters, and interfacing. Pre-requisite: AET 150 or Consent of Instructor. Lecture/Lab: 4 credits (75 contact hours).
Components: Lecture
Attributes: Technical

AET 210(4)  Course ID: 006372
Alternative Energy Independent Studies
Provides the student with the opportunity to put to practical use, by way of a student project, the knowledge and skills gained in AET 102, AET 112, AET 114, and AET 120. Pre-requisite: AET 112 and AET 114 and AET 120. Lecture/Lab: 4 credits (105 contact hours).
Components: Lecture
Attributes: Technical

AET 220(4)  Course ID: 006373
Modulation Techniques and Applications
Introduces the various types of electronic modulation including amplitude, frequency, and phase modulation with emphasis on antenna theory and the study of RF power in both resonant and non-resonant loads. Pre-requisite: AET 200 or Consent of Instructor. Lecture/Lab: 4 credits (75 contact hours).
Components: Lecture
Attributes: Technical

AET 230(3)  Course ID: 006374
Introduction to Circuit Design
Utilizes ideas learned in previous electronics courses to design, build, and test circuits based upon design criteria provided by the instructor. Pre-requisite: [AET 170 and AET 200] or Consent of Instructor. Lecture/Lab: 3 credits (60 contact hours).
Components: Lecture
Attributes: Technical

AET 240(4)  Course ID: 006375
Industrial Machinery Control
Examines AC and DC motors and their associated control equipment. Introduces ladder logic and schematic diagram interpretation and drawing. Gives the student practical experience in the design, construction and troubleshooting of industrial motor control circuitry. Advances the use of solid state devices and system integration. Pre-requisite: AET 110. Lecture/Lab: 4 credits (90 contact hours).
Components: Lecture
Attributes: Technical

AET 250(4)  Course ID: 006376
PLC Networking
Introduces the basic concepts in PLC networking to include networking protocols specific to industrial controllers, ASCII codes, bus topologies, and handling of remote I/O. Pre-requisite: AET 190. Lecture/Lab: 4 credits (75 contact hours).
Components: Lecture
Attributes: Technical

AET 260(4)  Course ID: 006377
Robotics and Programmable Controls
Introduces the theory of robots and programmable controls including terminology, components, and basic programming; provides theory of servo and non-servo robots and their controllers. Pre-requisite: Consent of instructor. Lecture/Lab: 4 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 credits (75 contact hours).
Components: Lecture
Attributes: Technical

AFS 111(1)  Course ID: 005359
Aerospace Studies I
A course designed to provide the student with a basic understanding of the nature and principles of 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 II
A course designed to provide the student with a basic understanding of the contribution of aerospace power to the total U.S. strategic offensive and defensive military posture. The student also develops leadership abilities by participating in a military organization, the cadet corps, which offers a wide variety of situations demanding effective leadership. Pre-requisite: AFS 111. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Other

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 hour; leadership, Laboratory: 1 hour 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 III
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 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 123(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 prior knowledge of agricultural situations. Pre-requisite: MAT 055 or equivalent placement level. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

AGR 140(3)  Course ID: 000021
Issues In Agriculture
Provides an introduction to agriculture and current issues pertaining to the agricultural industry. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AGR 150(3)  Course ID: 000022
Agricultural Power
Provides an introduction to farm equipment and their power units through classroom instruction that concentrates on specific principles that govern the equipment. Includes a lab that applies the principles learned in the classroom. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

AGR 165(3)  Course ID: 000023
Agricultural Seminar
Includes reports and discussion of problems in relation to operations of agricultural business. Offered only in summer. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
AGR 170(3) Course ID: 000024
Introduction to Equipment, Machines, and Engines
Provides an introduction to tractors, combines, balers, forage harvesters and windrowers and various attachments. Includes a study of the operation, adjustments, and repairs. Covers an introduction to engines in which theory and minor repairs will be discussed. Lecture: 1.0 credit (15 contact hours). Laboratory: 2.0 credits. (90 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
AGR 180(2) Course ID: 000025
Agricultural Internship I
Provides the opportunity to broaden the educational experience through appropriate observation and individualizes work assignments related to the Pre-requisite and/or co-requisite course objectives. The students will spend 80 hours of supervised field experience in an approved Agricultural Industry. Pre-requisite Or Co-requisite: (AGR 150 and AGR 140) or Consent of Instructor. Laboratory: 2.0 credits (75 contact hours).
Components: Laboratory
Attributes: Technical
AGR 190(2) Course ID: 000026
Agricultural Internship II
Provides the opportunity to broaden the educational experience through appropriate observation and individualized work assignments related to the Pre-requisite and/or co-requisite course objectives. The students will spend 80 hours of supervised field experience in an approved Agricultural Industry. Pre-requisite: (AGR 125 and AGR 180 and AGR 170) or Consent of Instructor. Laboratory: 2.0 credits (75 contact hours).
Components: Laboratory
Attributes: Technical
AGR 200(2) Course ID: 000028
Agricultural Internship III
Provides the opportunity to broaden the educational experience through appropriate observation and individualized work assignments related to the Pre-requisite and/or co-requisite course objectives. The students will spend 80 hours of supervised field experience in an approved Agricultural Industry. NOTE: Internship III is a variable credit (1-2 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. Laboratory: 2.0 credits (75 contact hours).
Components: Laboratory
Attributes: Technical
AGR 220(3) Course ID: 000030
Computers In The Agricultural Environment
Provides an introduction to computers as they relate to the agricultural environment. Pre-requisite: CIS 100. Lecture 2.0 credits (30 contact hours). Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
AGR 223(3) Course ID: 004010
Introduction to Artificial Insemination for Cattle
The primary objective of this course is to instruct students in artificial insemination techniques in cattle. Topics will include reproductive system, herd health, nutrition, semen handling, and estrus detection and synchronization. Pre-requisite: AG 240 or consent of Instructor.
Components: Laboratory, Lecture
Attributes: Technical
AGR 230(3) Course ID: 005136
Career Development in Agriculture
Includes essential aspects of career preparation, entry, adjustment, and advancement in agriculture and related fields. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
AGR 240(3) Course ID: 000032
Introduction to Animal Science
Provides a limited overview of the farm species of livestock. Includes the study of major livestock breeds of beef and dairy cattle, sheep, swine, poultry, and horses. Covers management applications for livestock production as well as production facilities. Lecture: 2.0 credits (30 contact hours). Laboratory: 1.0 credits (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
AGR 250(3) Course ID: 000033
Introduction to Plants/Crop Production
Familiarizes students with the basic principles and theories involved in field crop production. Provides a limited understanding of how crops are grown as a prelude to growing crops successfully. Covers pest and pesticides as well as pest management services. Lecture: 2.0 credits (30 contact hours). Laboratory: 1.0 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
AGR 260(3) Course ID: 007387
Introduction to Sustainable Agriculture
Provides students with a clear perspective on the principles, history, and practices of sustainable agriculture in our local and global communities. Provides understanding of the challenges to sustainability in our present system of agriculture. Enables students to identify principles of sustainable agriculture as they relate to basic production practices. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
AGR 270(3) Course ID: 007388
Introduction to Organic Agriculture
Introduces students to the theories, practice, and policy of organic agriculture. Topics covered include the history and the need for organic agriculture, fundamental organic farming practices, organic animal production, the National Organic Program, and economic and marketing considerations for organic produce. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
AGR 280(3) Course ID: 007424
Livestock Management
Covers management practices involved in the production of swine, horses, cattle, sheep and goats. Emphasizes selection, reproduction, feeding, diseases, marketing, handling, and parasite control. Laboratory exercises teach and reinforce livestock management techniques. Pre-requisite: AGR 240 Introduction to Animal Science. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical
AGS 115(3) Course ID: 015713
Agriculture Maintenance
Provides a study of basic maintenance issues (electrical, plumbing, fencing, building construction and repair, and safety) that arise in farming operations; and the practical troubleshooting and problem solving techniques. Lecture/ Lab: 3.0 credits (75 contact hours).
Components: Lecture
Attributes: Technical
AGS 135(3) Course ID: 015714
Herbaceous Plant Production
Includes the identification, selection, requirements, care, and uses of herbaceous plant materials commonly found in floriculture production, including the scientific, name and common pests. Annuals, perennials, bulbs, and grasses will be discussed. Lecture/Lab: 3.0 (60 contact hours).
Components: Lecture
Attributes: Technical
AGS 155(3) Course ID: 015716
Greenhouse Production
Designed to introduce students to the concepts of controlled environment growing and plant management. Plant production will be used to demonstrate greenhouse techniques. Identification of diseases, insects, and plant disorders in the greenhouse will also be discussed. Plant and growth medium selection will also be components. An emphasis will be placed on plants for agricultural and food production. Pre-requisite: AGS 135 Herbaceous Plant Production. Lecture/Lab: 3.0 credits (75 contact hours)
Components: Lecture
Attributes: Technical
AGS 175(2) Course ID: 015717
Agriculture Marketing and Sales
Enables students to gain a fundamental knowledge of marketing and sales strategies, as they are directly related to the agriculture industry. A focus is placed on market research, management of your marketing, promotions, handling produce, packaging, distribution, customer relations and sales techniques. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical
AGS 205(3) Course ID: 015718
Forage Management
Includes the study of the management, production, and utilization of forage grasses and legumes for harvested and grazed production. Subject areas will include varietals selection, planting, calibrating yields, production costs, growth management, and harvesting techniques. Management will focus on annual and perennial legume and grass production. This course will emphasize establishment, winter survival, fertilization, cutting management, and pasture management. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical
AGS 215(3) Course ID: 015719
Weed Management
Examines the nature of crop/weed interactions and explores various weed control methods. Weed identification, biology, ecology and modern management principles are all explored in this course. Pre-requisite: AGR 250 Intro to Plants/Crop Production. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical
AGS 225(3) Course ID: 015720
Fruit and Vegetable Production
Provides knowledge required for development of skills in the following areas: commercial vegetable production; variety selection; production methods; growth and development; harvesting; and pest control. Pre-requisite: AGR 250 Intro to Plants/Crop Production. Lecture/ Lab: 3.0 credits (75 contact hours).
Components: Lecture
Attributes: Technical
AGS 235(3) Course ID: 015721
Field Crop Production
Gain an understanding of the major U.S. field crops with emphasis on their growth requirements, development, uses, management, and physiology. Pre-requisite or Co-requisite: AGR 250 Intro to Plants/Crop Production. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical
AHS 245(3) Course ID: 015722
Pest Management
Provides a study of agricultural pest control, including insects, diseases, and weeds, of common agricultural and horticultural crops. Management techniques will also be discussed, including chemical, biological, IPM, and organic methods. Pre-requisite: AGR 250 Intro to Plants/Crop Production. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

AHS 255(3) Course ID: 015723
Crop Scouting
Designed to give students a hands-on experience scouting crops to find and identify existing and potential problems related to crop growth and development, fertility, pest pressure, and similar yield reducers. Pre-requisite: AGR 235 Field Crop Production. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

AHS 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

AHS 275(3) Course ID: 015725
Value Added Production
Provides students the knowledge and skills necessary to add economic value to raw farm products. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

AHS 285(3) Course ID: 015726
Farm Financial Management
Provides an overview of the basic concepts needed to understand commodity futures and option markets. Risks and rewards are discussed, as well as other topics needed to successfully trade in these markets. Pre-requisite: AGR 101 Economics of Food and Agriculture. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

AHS 295(1) Course ID: 015727
Agriculture Studies Capstone
Designed to be taken by the Agricultural Studies student in their final semester, as a programmatic review and course designed to bridge previous courses together. This course seeks to ensure students are ready to enter the workforce upon graduation as well as pass the capstone exam. Pre-requisite or Co-requisite: Sophomore Standing. Final Semester. Lecture: 1.0 credit (15 contact hours).
Components: Lecture Attributes: Technical

AHS 100(2) Course ID: 001515
Human Growth and Development
Course focus is on the promotion of health through assessment of individuals' growth and development across the life span. Consideration is given to the family, cultural, environmental, spiritual, and genetic influences when meeting basic human needs. Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Technical

AHS 105(3) Course ID: 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 work structures and definition of root words, suffixes, and prefixes from Greek and Latin. Additional emphasis is placed on spelling and pronunciation. Primarily designed for individuals preparing for a career in health care. No previous knowledge of Greek or Latin is required. Lecture: 3 hrs.
Components: Lecture Attributes: Technical

AHS 120(1) Course ID: 001517
Medical Terminology
Basic medical word techniques emphasizing anatomical, physiological and medical terms. Lecture: 1 credit (15 contact hours).
Components: Lecture Attributes: Technical

AHS 130(2) Course ID: 001518
Infection Control
Promotes an understanding of the effects of microorganisms on the human body. Includes standard precautions necessary for health maintenance and infection control, focusing on reducing the incidence of disease. Not intended as a general education science course. Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Technical

AHS 140(3) Course ID: 005520
Introduction to Public and Community Health
Introduces students to the management of public health emergencies. Topics include human epidemics and pandemics, agricultural and plant diseases, and emergency medicine. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

AHS 201(3) Course ID: 002358
Management Principles for Allied Health Providers
Many allied health practitioners will assume the role of a manager during the course of their career. This course is designed to provide theory and application focusing on the development of strategies and skills to assume professional responsibilities in management and administration. Lecture: 3 credits (45 contact hours).
Components: Laboratory, Lecture Attributes: Technical

AHS 203(3) Course ID: 005479
Diversity in Health Care
Introduces students to health care consumers from various cultural backgrounds. Emphasizes the cultural heritage and diversity existing in contemporary society and cultural factors that affect nontraditional and underrepresented consumers' access to and use of health care resources. Broadens students' perception and understanding of health/illness and the variety of meanings these terms carry for members of differing sociocultural populations. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

AHS 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

AIM Advanced Integrated Manufacturing

AHS 100(3) Course ID: 016284
Principles of Advanced Integrated Manufacturing
Introduces the founding principles/practices of manufacturing safety and health in a modern manufacturing environment. Covers current manufacturing quality control concepts and techniques used in industry with an emphasis on proper statistical methods and relevant software. Pre-requisite: Reading and math assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

AHS 110(3) Course ID: 016285
Manufacturing Processes and Materials
Covers modern manufacturing processes and materials in the production of contemporary consumer and industrial products with an emphasis on front-line manufacturing production. Pre-requisite: Reading and math assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

AIM 120(3) Course ID: 016286
Introduction to Modern Plastics Manufacturing
Introduces common plastic processing techniques, various plastic materials and practical safety requirements for common processing in a plastics manufacturing facility. Pre-requisite: Reading and math assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

AHS 101(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 credits (90 contact hours). (30:1 Ratio Lab).
Components: 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 some basic principles of pressure and flow. Pre-requisite: AIT 100 or consent of instructor. Lecture/Lab: 3 credits (67.5 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

AIT 120(3) Course ID: 005957
Equipment Installation
Focuses on the installation of electrical, hydraulic, and pneumatic systems. Emphasizes motor installation, wiring box selection, conduit preparation and installation, hydraulic/pneumatic systems, piping, controls, and various lifting and rigging techniques. Pre-requisite: Reading assessment exam scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture/Lab: 3 credits (75 contact hours). (30:1 Ratio Lab).
Components: Lecture
Attributes: Course Also Offered in Modules

AIT 130(4) Course ID: 005958
Measurement and Instrumentation
Covers measurement and instrumentation concepts and applications, choice of proper instrumentation and calibration, manual and automated measurement processes. Pre-requisite: MT 120 or higher. Lecture/Lab: 4 credits (90 contact hours). (30:1 Ratio).
Components: Lecture
Attributes: Course Also Offered in Modules

AIT 135(3) Course ID: 007384
Industrial Refrigeration - I
Presents refrigeration fundamentals and associated components for individuals interested in safe, effective, and efficient maintenance and operation of industrial refrigeration equipment who may also be seeking RETA credentialing. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AIT 160(1) Course ID: 005961
Workplace Safety
Focuses on safety practices and procedures required to perform industry work. Includes personal safety and protective equipment, workplace hazards and protective measures. Covers electrical safety procedures and hazardous materials. Emphasizes OSHA rules and regulations. Pre-requisite: Reading assessment exam scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical

AIT 190(3) Course ID: 006561
Integrated Power Plant Operations
Introduces students to main components found within a fossil power plant. Provides in-depth study of the following systems: cooling water system, steam flow system, air flow system, gas flow system, and power distribution. Provides instruction in the integration of systems within a fossil fuel power plant. (Reading and Mathematics assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses) OR instructor consent. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AIT 200(4) Course ID: 005963
Process Management and Quality Control
Emphasizes project team organization. Introduces the following concepts: cycle time, production time, first pass yield, and barrier identification. Introduces quality control including understanding acceptance criteria with tolerances, data collection, and data reporting. Pre-requisite: AIT 130 or Consent of Instructor. Lecture/Lab: 4 credits (90 contact hours). (30:1 Ratio Lab).
Components: Lecture
Attributes: Course Also Offered in Modules

AIT 210(4) Course ID: 005964
Advanced Equipment Maintenance
Focuses on maintenance techniques and procedures used with advanced and highly technical industrial machinery, including lubrication, V-belt and shaft drives, couplings, chain drives, bearings and seals, brakes and clutches, machine vibration and analysis, laser alignment, and troubleshooting techniques. Emphasizes the use of hand tools and precision measuring instruments. Pre-requisite: Reading and Mathematics assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses or consent of instructor. Lecture/Lab: 4 credits (90 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

AIT 220(3) Course ID: 006565
The Integrated Power Grid
Introduces students to types of power plants that are tied to the electric grid other than fossil power plants. Provides overviews of nuclear, hydro, and many forms of renewable energy. Includes forms of alternative energy power plants such as solar, wind, and bio-mass power plants. Lecture: 3.0 (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

AIT 230(3) Course ID: 006569
Integrated Power Plant Operations
Introduces students to main components found within a fossil power plant. Provides in-depth study of following systems: cooling water system, steam flow system, air flow system, gas flow system, and power distribution. Provides instruction in the integration of systems within a fossil fuel power plant, and preparatory examination for the Edison Electrical Institute Examination. Pre-requisite: AIT 220 or Consent of Instructor. Lecture: 3.0 (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

AIT 235(3) Course ID: 007385
Industrial Refrigeration - II
Offers a second level detailed presentation of primary components and systems utilized within industrial refrigeration plants for individuals interested in safe, effective, and efficient maintenance and operation of industrial refrigeration equipment who may also be seeking RETA credentialing. Pre-requisite: AIT 135. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AIT 240(4) Course ID: 006573
Analysis of National Electrical Code Development and Structure
Prepares students to take examination for electrical license and employer testing through understanding of content contained in the National Electrical Code. Pre-requisite: Reading assessment score at level of RDG 20 or successful completion of developmental courses prior to RDG 020. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

AIT 250(5) Course ID: 006574
Application of the National Electrical Code for Residential Wiring
Applies articles of National Electrical Code to residential wiring. Pre-requisite: AIT 240 or consent of instructor. Lecture/Lab/Practicum: 5.0 credits (165 contact hours).
Components: Laboratory, Lecture, Practicum
Attributes: Technical

AIT 270(2) Course ID: 006942
Introduction to Robotics and Programmable Logic Controllers
Examines fundamental architecture of programmable logic controllers as it pertains to industrial application and incorporates ladder logic principles, commonly used instruction language, editing, program navigation and program analysis. Examines the fundamentals of 6-axis robotics including manual manipulation, execution of existing robotic program file, modification of target parameters, and safety interlocks. Pre-requisite: AIT 1501 or Consent of Instructor. Lecture/Lab: 2.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

AIT 290(0.1 - 5)
Instructor Consent Required
Selected Topics in Advanced Integrated Technology
Includes selected topics in integrated technology; due to rapidly changing technology and 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 299(4) Course ID: 007386
Advanced Electromechanical Concepts
Investigates advanced concepts in electromechanical engineering. Includes advanced concepts in fluid power, motor controls, instrumentation, and automation controls. Required for students in the Advanced Integrated Technology program who want to pursue the Bachelor of Science Electromechanical Engineering Technology transfer agreement with Murray State University. Pre-requisite: AIT 1501 or consent of instructor. Lecture/Lab: 4.0 credits (90 contact hours).
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 credits (45 contact hours).
Components: Lecture

AIT 1002(1)
Power Development
Introduces electrical power systems used in industrial settings, including basic theory and application of DC/AC generators, alternators, and electric motors. Pre-requisite: Reading assessment exam scores above KCTCS developmental placement level or successful completion of prescribed developmental courses or completion of AIT 1001 or consent of instructor. Lecture/Lab: 1 credit (22.5 contact hours).
Components: 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 or completion of AIT 1002 or consent of instructor. Lecture/Lab: 1 credit (22.5 contact hours).
Components: 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 100 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: Reading assessment exam scores above KCTCS developmental placement level; or successful completion of prescribed developmental courses or consent of instructor. Lecture/Lab: 2.0 credit (45 contact hours).
Components: Lecture

AIT 1201(1) Course ID: 006155
Electrical Installation
Focuses on the installation of electrical industrial systems, including printing reading, wiring box selection, component installation, raceways and conduit, control wiring, and wiring techniques. Pre-requisite: Reading assessment exam scores above KCTCS developmental placement level or successful completion of prescribed developmental courses or consent of instructor. Lecture/Lab: 1 credit (25 contact hours).
Components: Lecture

AIT 1202(1) Course ID: 006156
Piping, Pneumatic, & Installation
Focuses on the installation of pneumatic industrial systems, including interpretation of drawings and diagrams, fabrication of pipe and pipefittings, pneumatic supply lines, piping safety, and pipe installation for pneumatic systems. Pre-requisite: AIT 1201 or consent of instructor. Lecture/Lab: 1 credit (25 contact hours).
Components: Lecture

AIT 1203(1) Course ID: 006157
Mechanical Installation
Includes motor and machine mounting, speed, torque, power measurement, and various lifting and rigging techniques. 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: 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: (MT 120 or higher) OR consent of instructor. Lecture/Lab: 2.0 credit (45 contact hours).
Components: Lecture

AIT 1302(2) Course ID: 006159
Integrated Process Control
Covers measurement and instrumentation concepts and applications and introduces the concept of loop controls and the proper calibration of loops. Examines the importance of PID controllers in a control loop. Pre-requisite: (MT 120 or higher) OR consent of instructor. Lecture/Lab: 2 credits (45 contact hours).
Components: Lecture

AIT 1401(2) Course ID: 006161
Basic Electrical Controls
Provides instruction in the integrated application of basic electrical controls including electrical motor controls with starting, reversing, and stopping devices. Pre-requisite: AIT 100 or AIT 1003 or consent of instructor. Lecture/Lab: 2 credits (45 contact hours).
Components: Lecture

AIT 1402(1) Course ID: 006162
Basic Pneumatic Controls
Introduces the student to pneumatic speed control circuits. Uses air pressure regulators and flow controls to obtain cylinder speeds. Pre-requisite: AIT 100 or AIT1003 or consent of the instructor. Lecture/Lab: 1 credit (22.5 contact hours).
Components: Lecture

AIT 1403(1) Course ID: 006163
Basic Hydraulic Controls
Provides instruction in hydraulic speed and pressure control; includes flow control valves, metering circuits, pressure reducing valves, and sequence valves. Pre-requisite: AIT 100 or AIT 1003 or consent of the instructor. Lecture/Lab: 1 credit (22.5 credit hours).
Components: Lecture

AIT 1501(2) Course ID: 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: AIT 1140 or AIT 1401 or consent of instructor. Lecture/Lab: 2 credits (45 contact hours).
Components: Lecture

AIT 1502(1) Course ID: 006165
Intermediate Pneumatic Controls
Provides instruction in the integrated application of advanced industrial controls for pneumatic systems. Emphasizes pneumatic logic circuits. Pre-requisite: AIT 140 or AIT 1402 or consent of instructor. Lecture/Lab: 1 credit (22.5 contact hours).
Components: Lecture

AIT 1503(1) Course ID: 006166
Intermediate Hydraulic Controls
Provides instruction in the integrated application of advanced industrial controls for hydraulic systems. Emphasizes hydraulic synchronization circuits and multi-pressure circuits. Pre-requisite: AIT 140 or AIT 1403 or consent of instructor. Lecture/Lab: 1 credit (22.5 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 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 credits (45 contact hours).
Components: Lecture

AIT 2002(2) Course ID: 006168
Quality Control and SPC
Introduces quality control including understanding acceptance criteria with tolerances, data collection, and data reporting. Pre-requisite: AIT 130 or Consent of Instructor. Lecture/Lab: 2 credits (45 contact hours).
Components: Lecture

AIT 2101(1) Course ID: 006169
Predictive/Preventive Maintenance and Lubrication
Focuses on maintenance techniques and procedures used with advanced and highly technical industrial machinery. Pre-requisite: Reading and Mathematics assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses or consent of instructor. Lecture/Lab: 1.0 credits (22.5 contact hours).
Components: Lecture

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

AMS American Military Studies

AMS 101(2) Course ID: 000907
Introduction to the Army
This introductory level course is designed to give students an appreciation for the role the Army currently plays in our society. The course covers the history of the Army and the roles and relationships of the Army within our society. The course also covers some of the basic skills necessary for today’s leaders to include oral presentation, time management, map reading, basic rifle marksmanship and squad tactics. Components: Lecture Attributes: Technical

AMS 102(2) Course ID: 000782
Introduction to Leadership
This course is designed to acquaint the student with the fundamental skills necessary to be a leader, both in military and civilian context. Course also covers basic military map reading skills. Pre-requisites: None.
Components: Lecture Attributes: Other

AMS 211(2) Course ID: 004854
Advanced Leadership I
This course focuses on both theoretical and practical aspects of leadership. Students will examine topics such as written and oral communication, effective listening, assertiveness, personality, adult development, motivation, and organizational culture and change. Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Technical

AMS 250(1) Course ID: 005380
Basic Military Science Lab
A hands-on practicum which exposes the student to the military skills required for basic technical and tactical competence to enter the Advanced Course. Laboratory, two hours per week and two week-end exercises. May be repeated to a maximum of four credits. Practicum: 1 credit (32 contact hours).
Components: Practicum Attributes: Technical
AMT 100(1) Course ID: 004348
Mathematics
Instruction on the aerodynamic and physical forces
acting on an aircraft in flight to be taught by lecture,
demonstrations, worksheets and reading assignments.
Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credits
(75:1 ratio/37 contact hours) Pre-requisite: CPU 150 or CIS
100 or GE 150 or Consent of Instructor
Components: Lecture
Attributes: Technical

AMT 102(1) Course ID: 004350
Aircraft Weight and Balance
Teaches knowledge and skills necessary in measuring,
calculating, and documenting aircraft weight and balance.
Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credits
(75:1 ratio/37 contact hours) Pre-requisite: CPU 150 or CIS
100 or GE 150 or Consent of Instructor.
Components: Lecture
Attributes: Technical

AMT 103(1) Course ID: 004351
Cleaning and Corrosion Control
Provides instruction in the identification, cause, prevention,
removal and treatment of corrosion. Also, includes interior
and exterior cleaning of the aircraft. Lecture: 0.5 credits
(8 contact hours) Lab: 0.5 credits (75:1 ratio/37 contact
hours) Pre-requisite: CPU 150 or CIS 100 or GE 150
or Consent of Instructor.
Components: Lecture
Attributes: Technical

AMT 104(1) Course ID: 004352
Basic Electricity
Provides instruction in basic electricity theory, concepts,
components, physics, meter operation and use, battery
construction and servicing. Will be taught by lecture,
demonstrations, worksheets and reading assignments.
Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credits
(90:1 ratio/45 contact hours) Pre-requisite: CPU 150 or CIS
100 or GE 150 or Consent of Instructor
Components: Lecture
Attributes: Technical

AMT 105(1) Course ID: 004353
Fluid Lines and Fittings
Provides an understanding of basic hydraulic functions,
the fabrication of tubing and flex hoses as well as seal
compatibility. Taught by lectures, demonstrations,
worksheets, reading assignments and projects. Lecture:
0.5 credits (8 contact hours) Lab: 0.5 credits (45:1 ratio/22
contact hours) Pre-requisite: CPU 150 or CIS 100 or GE
150 or Consent of Instructor
Components: Lecture
Attributes: Technical

AMT 106(1) Course ID: 004354
Aircraft Drawing and Blueprint Reading
Provides instruction in reading and interpretation of basic
industrial and aircraft blue prints. This is taught by lecture,
demonstration, worksheet, reading assignments and
projects. Lecture: 0.5 credits (8 contact hours) Lab: 0.5
credit (45:1 ratio/22 contact hours) Pre-requisite: CPU
150 or CIS 100 or GE 150 or Consent of Instructor
Components: Lecture
Attributes: Technical

AMT 107(1) Course ID: 004355
Physics
Provides instruction in basic principles of physics as
related to aviation maintenance. This is taught by lecture,
demonstration, worksheet, reading assignments and
projects. Lecture: 0.5 credits (8 contact hours) Lab: 0.5
credit (45:1 ratio/22 contact hours) Pre-requisite: CPU
150 or CIS 100 or GE 150 or Consent of Instructor
Components: Lecture
Attributes: Technical

AMT 108(1) Course ID: 004356
Ground Handling and Servicing
Basic handling and ground service techniques of the
aircraft taught by lecture, demonstrations, worksheets
and reading assignments. Lecture: 0.5 credits (8 contact
hours). Lab: 0.5 credits (45:1 ratio/22 contact hours).
Pre-requisite: CPU 150 or CIS 100 or GE 150 or Consent
of Instructor
Components: Lecture
Attributes: Technical

AMT 109(1) Course ID: 004357
Maintenance Publications
Instruction in the use of maintenance publications is
taught by lecture, demonstrations, worksheets and reading
assignments. Lecture: 0.5 credit (8 contact hours) Lab: 0.5
credit (15:1 ratio/7 contact hours) Pre-requisite: CPU
150 or CIS 100 or GE 150 or Consent of Instructor
Components: Lecture
Attributes: Technical

AMT 111(1) Course ID: 004358
Mechanic Privileges and Limitations
Instruction in aircraft mechanic privileges and limitations is
taught by lecture, demonstrations, worksheets and reading
assignments. Lecture: 0.5 credits (8 contact hours) Lab:
0.5 credits (15:1 ratio/7 contact hours) Pre-requisite: CPU
150 or CIS 100 or GE 150 or Consent of Instructor
Components: Lecture
Attributes: Technical

AMT 112(1) Course ID: 004359
Materials and Processes
Instruction in structural inspection, materials and fasteners,
and repair methods is taught by lecture, demonstrations,
worksheets and reading assignments. Lecture: 0.5 credits
(8 contact hours) Lab: 0.5 credits (120:1 ratio/60 contact
hours) Pre-requisite: CPU 150 or CIS 100 or GE 150 or
Consent of Instructor
Components: Lecture
Attributes: Technical

AMT 113(1) Course ID: 004360
Non-Metallic Structures
Provides instruction in inspection, service, and repair
of metal and composite aircraft structures, including
laminates and honeycomb structures, plastic materials,
interior furnishings and access openings. Lecture: 0.5
credits (8 contact hours) Lab: 0.5 credits (45:1 ratio/22
contact hours) Pre-requisite: AMT 100, 101, 102, 103,
104, 105, 106, 107, 108, 109, 111, and 113. All AMT
courses must be achieved with a grade of C or greater.
Components: Lecture
Attributes: Technical

AMT 205(1) Course ID: 004362
Inspect, check, service and repair landing gear,
retraction systems, shock struts, bakes, wheels, tires,
and steering system. Instruction provided by lecture,
demonstration, and practical projects.
Components: Lecture
Attributes: Technical

AMT 223(1) Course ID: 004370
Aircraft Landing Gear Systems
Inspect, check, service and repair landing gear, retraction
systems, shock struts, bakes, wheels, tires, and steering
system. Instruction provided by lecture, demonstration,
and practical projects. Lecture: 0.5 credits (8 contact
hours) Lab: 0.5 credits (90:1 ratio/45 contact hours) Pre-
requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107,
108, 109, 111, and 112. All AMT courses must be achieved
with a grade of C or greater. Components: Lecture
Attributes: Technical

AMT 225(2) Course ID: 004477
Aircraft Electrical Systems
Checking, inspecting, troubleshooting and repair of aircraft
electrical system and system components are included.
Instruction is provided by lecture, demonstration, and
practical projects. Lecture: 0.5 credits (8 contact hours)
Lab: 1.5 credits (75:1 ratio/112 contact hours) Pre-
requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107,
108, 109, 111, and 113. All AMT courses must be achieved
with a grade of C or greater. Components: Lecture
Attributes: Technical

AMT 229(1) Course ID: 004372
Aircraft Fuel Systems
Checking, inspection, servicing, repair and troubleshooting
fuel systems and components are covered. Types of
fuels used in various aircraft. Discussion of the problems
associated with fueling and various techniques in fueling
are included. Lecture: 0.5 credits (8 contact hours) Lab:
0.5 credits (90:1 ratio/45 contact hours) Pre-requisite:
AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109,
111, 112, and 113. All AMT courses must be achieved
with a grade of C or greater. Components: Lecture
Attributes: Technical

AMT 231(1) Course ID: 004373
Cabin Atmospheric Control Systems
Checking, inspection, servicing, repair and troubleshooting
of the heating, cooling, air conditioning, pressurization,
and oxygen systems are included. Lecture: 0.5 credits
(8 contact hours) Lab: 0.5 credits (45:1 ratio/22 contact
hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105,
106, 107, 108, 109, 111, and 113. All AMT courses must be
achieved with a grade of C or greater. Components: Lecture
Attributes: Technical

AMT 238(1) Course ID: 004376
Aircraft Instrument Systems
Check, inspect and troubleshoot the pilot/static system,
floating compass system and the gyros used for flight
instruments. Discussion of the role of mechanics when
working with precision instruments is included. Lecture:
0.5 credit (8 contact hours) Lab: 0.5 credits (45:1 ratio/7
contact hours) Pre-requisite: AMT 100, 101, 102, 103,
104, 105, 106, 107, 108, 109, 111, and 113. All AMT
courses must be achieved with a grade of C or greater.
Components: Lecture
Attributes: Technical

AMT 241(4) Course ID: 004377
Turbine Engines
Construction, repair and overhaul of turbine engines is
included. Lecture: 2 credits (30 contact hours) Lab: 2
credits (60:1 ratio/120 contact hours) Pre-requisite:
AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109,
111, 112, and 113. All AMT courses must be achieved
with a grade of C or greater. Components: Lecture
Attributes: Technical

AMT 243(3) Course ID: 004378
Reciprocating Engine Theory and Operation
Theory and development of the aircraft internal combustion
gasoline engine as well as instruction in the use of engine
construction and repair diagrams are covered. Lecture: 0.5
credits (8 contact hours) Lab: 2.5 credits (45:1 ratio/112 contact
hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105,
106, 107, 108, 109, 111, and 112. All AMT courses must be
achieved with a grade of C or greater. Components: Lecture
Attributes: Technical
AMT 245(1) Course ID: 004379
Engine Inspection
The operation and inspection of turbine engines is covered. Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credits (45:1 ratio/22 contact hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, 112, and 113. All AMT courses must be achieved with a grade of C or greater.
Components: Lecture Attributes: Technical

AMT 247(4) Course ID: 004380
Reciprocating Engine Overhaul
Inspection, checking, servicing and the repair of opposed and radial engines and reciprocating engine installation will be taught by lecture, demonstration, student feedback and participation. Lecture: 2 credits (30 contact hours) Lab: 2 credits (60:1 ratio/120 contact hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, 112, and 113. All AMT courses must be achieved with a grade of C or greater.
Components: Lecture Attributes: Technical

AMT 251(1) Course ID: 004381
Engine Fuel System Components
Operation, inspection and repair of fuel systems and components of aircraft fuel systems, by reading assignments, worksheets, lecture, demonstration and practical projects. Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credit (15:1 ratio/7 contact hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, 112, and 113. All AMT courses must be achieved with a grade of C or greater.
Components: Lecture Attributes: Technical

AMT 253(1) Course ID: 004382
Engine Fuel Metering Systems
Operation, inspection and repair of fuel metering systems are taught by reading assignments, worksheets, lecture, demonstration and practical projects. Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credit (75:1 ratio/37 contact hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, 112, and 113. All AMT courses must be achieved with a grade of C or greater.
Components: Lecture Attributes: Technical

AMT 255(1) Course ID: 004383
Induction Systems
Inspection, checking, troubleshooting, servicing and repair of engine air and rain control systems, heat exchangers, superchargers, carburetor air intake and induction manifolds are taught by reading assignments, worksheets, lecture, demonstration and practical projects. Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credits (45:1 ratio/22 contact hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, 112, and 113. All AMT courses must be achieved with a grade of C or greater.
Components: Lecture Attributes: Technical

AMT 257(1) Course ID: 004384
Engine Cooling Systems
Inspection and repair of engine cooling system components are taught by reading assignments, worksheets, lecture, demonstration and practical projects. Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credit (15:1 ratio/7 contact hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, 112, and 113. All AMT courses must be achieved with a grade of C or greater.
Components: Lecture Attributes: Technical

AMT 259(1) Course ID: 004385
Engine Exhaust Systems
Inspection and repair of engine exhaust system components are taught by reading assignments, worksheets, lecture, demonstration and practical projects. Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credit (15:1 ratio/7 contact hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, 112, and 113. All AMT courses must be achieved with a grade of C or greater.
Components: Lecture Attributes: Technical

AMT 261(1) Course ID: 004386
Engine Instrument Systems
Troubleshooting, servicing and repair of fluid flow indicating systems and repair of engine temperature, pressure, and t.p.m. indicating systems are taught by reading assignments, worksheets, lecture, demonstration and practical projects. Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credit (15:1 ratio/7 contact hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, and 113. All AMT courses must be achieved with a grade of C or greater.
Components: Lecture Attributes: Technical

AMT 263(1) Course ID: 004387
Fire Protection Systems
Inspecting, checking, servicing, troubleshooting, and repair of engine fire detection and extinguishing systems are taught by reading assignments, worksheets, lecture, demonstration and practical projects. Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credit (15:1 ratio/7 contact hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, 112, and 113. All AMT courses must be achieved with a grade of C or greater.
Components: Lecture Attributes: Technical

AMT 265(2) Course ID: 004388
Engine Electrical Systems
Repair of electrical engine system components, and to install, check, and service engine electrical wiring, controls, switches, indicators, and protective devices by lecture, reading assignments, demonstration and practical projects. Lecture: 1 credit (15 contact hours) Lab: 1 credit (60:1 ratio/60 contact hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, 112, and 113. All AMT courses must be achieved with a grade of C or greater.
Components: Lecture Attributes: Technical

AMT 267(1) Course ID: 004389
Engine Ignition Systems
Operation and overhaul of magneto and ignition harness; repair of engine ignition system components; and inspect, check, service, troubleshoot, and repair reciprocating and turbine engine ignition systems by lecture, reading assignments, worksheets, demonstration and practical projects. Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credits (120:1 ratio/60 contact hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, 112, and 113. All AMT courses must be achieved with a grade of C or greater.
Components: Lecture Attributes: Technical

AMT 269(1) Course ID: 004390
Lubrication Systems
Purpose, use, and selection of lubricants; repair engine lubrication system components; and inspect, check, service, troubleshoot and repair engine lubrication systems taught by lecture, reading assignments, worksheets, demonstration and practical projects. Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credits (150:1 ratio/75 contact hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, 112, and 113. All AMT courses must be achieved with a grade of C or greater.
Components: Lecture Attributes: Technical

AMT 271(1) Course ID: 004391
Propellers
Inspection, checking, servicing, and repair of propeller synchronizing and ice control systems are included. Students will identify and select propeller lubricants, balance propellers, and repair propeller control system components. Inspection, checking, servicing, and repair of fixed-pitch, constant-speed, and feathering propellers and propeller governing systems is also included. Installation, troubleshooting and the removal of propellers is covered. This class is taught by lecture, reading assignments, worksheets, demonstration and practical projects. Lecture: 0.5 credits (7 contact hours) Lab: 0.5 credits (120:1 ratio/60 contact hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, 112, and 113. All AMT courses must be achieved with a grade of C or greater.
Components: Lecture Attributes: Technical

ANA 209(3) Course ID: 004701
Principles of Human Anatomy
The structure of the human body will be examined at various levels: cellular, tissues and organs systems. The gross anatomical arrangement of the body will be studied in a system-by-system format relating structure to function and the fundamentals of human embryology/information with adult anatomy. The central nervous system will be emphasized. Pre-requisite: Introductory biology or zoology. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: SN - Science
ANT 223(3) Course ID: 007065
Culture Change and Globalization
Introduces the historical development of anthropology, its role in colonialism and globalization, and types of cultural change processes. Includes discussions of how human societies have struggled for political and economic identity in a post-colonial world and for cultural survival and self-determination. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading or completion of developmental reading courses. Lecture: 3.0 credit hours (45 contact hours).
Components: Lecture
Attributes: Other

ANT 235(3) Course ID: 002205
Food and Culture
Examines the way values and behaviors related to food production and consumption are shaped by the physical and cultural environment. Draws data from non-Western and Western cultures. Discusses implications of cultural factors for contemporary issues in nutrition. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading OR completion of developmental reading courses. Lecture: 3.0 credit hours (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science

APT 102(4) Course ID: 004540
Process Fundamentals
Presents fundamental knowledge necessary for process operations. Develops an understanding of the basic principles of process operations. Covers the fundamental areas of physics, chemistry, and mathematics necessary to understand their complex relationship in industry. Includes topics on fluid behavior, fluid in motion, piping and valves, and the laws and nature of heat. Pre-requisite: Test at MAT126 eligible or MAT 065 or Consent of Instructor. Lecture: 2.0 credit hours (30 contact hours). Lab: 2.0 credits (120 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

APT 104(3) Course ID: 004537
Rotating and Reciprocating Equipment
Presents fundamental knowledge necessary for process operations and entry-level maintenance personnel. Develops an understanding of mechanical energy and the way it is put to use in industrial applications. Covers various forms of energy and how this energy can be converted to perform work. Includes topics on operating instructions, basic troubleshooting skills, and basic maintenance skills typically performed by personnel on pumps, compressors, and prime movers. Pre-requisite: Test at MAT126 eligible or MAT 065 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Laboratory: 2.0 credits (120 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

APT 106(2) Course ID: 004538
Process Chemistry
Presents fundamental knowledge of chemistry necessary for process operations. Focuses on the basics of chemistry as they apply to water treatment and hydrocarbon processing. Includes, but are not limited to: basic chemical terminology, molecular formulas, structural formulas, common chemical symbols, and the chemical nature of the operator’s job, work environment, and products. Pre-requisite: Test at MAT126 eligible or MAT 065 or Consent of Instructor. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

APT 108(2) Course ID: 004539
Stationary Equipment
Presents fundamental knowledge in the operation and troubleshooting of stationary equipment. Provides a solid foundation on which to build sound maintenance and operations programs. Covers common equipment designs, operating instructions, troubleshooting aids to help identify malfunctions, guides to handling emergency situations and routine scheduled maintenance tasks. Includes topics on heat exchangers, heat transfer, cooling towers, and refrigeration. Pre-requisite: Test at MAT126 eligible or MAT 065 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

APT 142(4) Course ID: 004541
Instrumentation
Develops an understanding of how to control and operate process. Involves work on real life simulators to insure an understanding of process operations has been achieved. Includes measurement fundamentals and control strategies as applied to unit operations, industrial chemical operations, and operating tactics and strategies. Provides basic instruction in process control instrumentation as it relates to the manufacturing operations and will promote smoother, more efficient control of automated systems. Pre-requisite: APT 108 with a grade of C or greater OR Instructor Consent. Lecture/Lab: 4.0 credits (105 contact hours).
Components: Lecture
Attributes: Technical

APT 144(4) Course ID: 004542
Process Operations
Develops an understanding of modern processing techniques, practical examples of normal and abnormal operating situations, and advanced training in enhancing productivity while cutting operating costs. Provides maintenance personnel and technicians an understanding of the overall process and their roles in maintaining efficient production rates. Involves work on real life simulators to insure an understanding of process operations. Includes unit operations, industrial chemical operations, and a variety of equipment used in industrial processes. Pre-requisite: APT 108 with a grade of C or greater Permission of Instructor. Lecture: 2 credits (30 contact hours). Laboratory: 2 credits (120 contact hours/0.1 ratio).
Components: Laboratory, Lecture
Attributes: Technical

APT 145(2) Course ID: 004543
Process Applications
Develops an understanding of how to control and operate processes. Involves work on real life simulators to insure an understanding of process operations. Includes a study of interactive control strategies in unit operations, industrial chemical operations, and compressor operations and applications. Pre-requisite: APT 108 with a grade of C or greater or Permission of Instructor. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical

APT 148(2) Course ID: 004544
Process Operation Safety
Develops an understanding of how to safely start-up, shutdown, control and operate industrial processes. Includes safe operating tactics and strategies, and procedures as they apply to unit operations and industrial chemical operations. Pre-requisite: APT 108 with a grade of C or greater or Permission of Instructor. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical

APT 154(6) Course ID: 005336
Lineman Technology I
Introduces the student to the use of and/or assembly of materials, tools, and equipment common to the electric utility industry. Provides an overview of the energy delivery system, personal responsibility in regard to safety and job requirements, introduces the student to climb poles, and trains the student to perform tasks typically required of entry-level apprentices. Pre-requisite: APT 108 or Consent of Instructor. Co-requisite: APT 159, EET 150, EET 151. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

APT 158(3) Course ID: 005510
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 overview of the energy delivery system and personal responsibility in regard to safety and job requirements, qualifies the student to climb poles, and trains the student to perform tasks typically required of entry-level apprentices. Pre-requisite: APT 108 or Consent of Instructor. Co-requisite: APT 159, EET 150, EET 151. Laboratory: 3 credits (45 contact hours).
Components: Laboratory
Attributes: Technical

APT 159(4) Course ID: 005511
Lineman Technology I Lab
Provides hands on experience in the use of and/or assembly of materials, tools, and equipment common to the electric utility industry. Provides an opportunity for the student to climb poles and perform tasks typically required of entry-level apprentices. Pre-requisite: APT 108 or Consent of Instructor. Co-requisite: APT 158, EET 150, EET 151. Laboratory: 4 credits (240 contact hours).
Components: Laboratory
Attributes: Technical
APT 202(3) Course ID: 004545
Federally Mandated Training
Presents a fundamental knowledge of OSHA, EPA and DOT regulations as concerned with hazardous waste generators and the fundamental knowledge necessary for process operations to qualify for hazardous response to incidents. Covers the required skills to qualify them for HAZWOPER Operations level response. Includes, but are not limited to: Hazcom, HAZWOPER Operations level, personal protective equipment, working at elevated heights, respirators, SCBA's, and specific hazardous materials. Pre-requisite: Consent of Instructor. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

APT 291( - 6) Course ID: 001039
Instructor Consent Required Cooperative Education Program
For students approaching the major career transition from college to work as a co-op student. Provides supervised on-the-job work experience related to the student's educational objectives. Students participating in the Co-op Education program receive compensation for their work. Pre-requisite: Consent of Instructor. Co-op: 1-6 credits (75-450 contact hours).
Components: Co-Op
Attributes: Technical

APT 290(1 - 6) Course ID: 003861
Developmental Writing
This course is designed to assist students who have demonstrated specific needs in the area of writing. Students are provided individualized or small group instruction. This course includes, but is not limited to, reviewing punctuation skills, reviewing grammar skills, and/ or writing short paragraphs. This course may be repeated one time. Lecture: 3 credits (45 contact hours)
Components: Lecture
Attributes: Remedial - English

ARI 10(3) Course ID: 003845
Remedial Math
This course is designed to assist students who have demonstrated specific needs in the area of math. Students are provided individualized or small group instruction. This course includes, but is not limited to, basic mathematics skills and introductory algebraic skills. This course may be repeated one time. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

ART 100(3) Course ID: 000049
Introduction to Art
Provides a basic overview of the study, language, history and cultural relevance of visual art and is designed primarily for non-art majors. Utilizes visually-enhanced lectures and may include optional introductory studio experiences. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, Course Also Offered in Modules

ART 104(3) Course ID: 004346
Introduction to African Art
Examines the arts of Africa, including sculpture, painting, pottery, textiles, architecture, altar arts, human adornment and performance art, on the basis of style, iconography, and function, and in relation to religious, political, market and daily contexts. Explores the ways in which Africa has been conceived and deconstructed the assumptions shaping each approach. Addresses the processes (and problems) of collecting and displaying African art throughout the course. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: 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) or Consent of Instructor. 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) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities
Course Descriptions

ART 204(3) Course ID: 000086
Modern Art History
Examines the visual arts from the 18th through the 20th centuries, with primary emphasis on Europe and the United States. Pre-requisite: (English and Reading assessment exam scores above the developmental placement level or the successful completion of prescribed developmental course (s) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ART 205(3) Course ID: 015848
African American Art
Provides an introduction to African American Art. Examines the creation of the painting, sculpture, graphic arts, photography, and performance art from the early settlements of the United States to the present. Pre-requisite: Current placement scores for college level reading established by KCTCS, or completion of RDG 030 or RDG185, and ENC 091. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

ART 208(3) Course ID: 000017
Introduction to Art Education
Investigates the theoretical, historical, psychological, and sociological foundations of art education in a lecture-lab format. Provides a critical examination of individual and group activities currently offered in the elementary school art program and includes lectures, curriculum design, evaluation of processes and techniques. Exploration and analysis of design, media, and concepts, with special attention to classroom application. ART 208 satisfies the state art requirement for general elementary teacher requirement certification (4 hours of field work required). Lecture: 1 hour; Laboratory: 2 hours.
Components: Laboratory, Lecture
Attributes: Other

ART 210(3) Course ID: 004114
Drawing II
Advanced studio investigation of drawing techniques and concepts. Projects in line, value, composition and space will be investigated through individual development of style and expression, with extensive use of figure models. Pre-requisite: ART 110. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 211(3) Course ID: 004118
Life Drawing
Introduces basic life drawing skills and concepts. Explores topics such as projects in line, value, space, and composition in a variety of media with the human form as the subject matter. Includes drawings in class from a nude human model. Pre-requisite: ART 110. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 220(3) Course ID: 004115
Painting I
Study of the technical and formal concerns of painting, including an understanding of color theory, materials, paint application, and image making. Pre-requisite: ART 110 or Consent of Instructor. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 221(3) Course ID: 004116
Painting II
Includes advanced studio investigation of the technical and formal concerns of painting. Continues the development of individual style and expression. Pre-requisite: ART 220. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 231(3) Course ID: 007075
Jewelry/Metals I
Introduces the aesthetic and technical issues relating to basic metalsmithing techniques such as sawing, filing, piercing, forging, forming, soldering, and finishing. Emphasizes design intentions and hands-on work to present the concepts of metal manipulation. Emphasizes instructor-led critiques. Provides an introduction to historical and contemporary metal work. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture

ART 232(3) Course ID: 007076
Jewelry/Metals II
Continues the development of techniques introduced in Jewelry/Metals I. Emphasizes problem-solving skills and the development of personal creativity. Stresses the aesthetic and technical issues relating to raising, enameling, forging, casting, and more advanced sculptural processes. Includes discussion and critique as integral parts of the coursework. Pre-requisite: ART 231 or Consent of Instructor. Lecture/Lab: 3.0 credit hours (90 contact hours).
Components: Lecture

ART 240(3) Course ID: 004117
Ceramics I
Introduces a variety of forming and finishing techniques used in working with clay and glaze. Hand-building, wheel throwing, surface alteration and glazing will be investigated, along with a brief overview of ceramic history, aesthetics and studio safety. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 241(3) Course ID: 004118
Ceramics II
Continues studio investigation of ceramic techniques in hand-building and/or wheel throwing, glazing, surface decoration, glazing and firing. Continued development of individual style and personal expression. Pre-requisite: ART 240. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 251(3) Course ID: 016141
Graphic Communication I
Provides an introduction to graphic design principles and methods and techniques used to incorporate type and image. Applies the elements and principles of design and basic color theories for design concepts. Pre-requisite or Co-requisite: ART 110 & ART 112, OR consent of instructor. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 252(3) Course ID: 016142
Typography
Introduces core principles of typography through a series of progressively complex studio assignments supported by readings, lectures, and software tutorials. Pre-requisite: ART 250 OR consent of instructor. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 253(3) Course ID: 016143
Graphic Communication II
Expands proficiency in all aspects of the design process by continuing the development of graphic design principles, methods, and techniques introduced in Graphic Communication I. Incorporates industry-standard page layout, illustration, and image editing software. Includes discussion and critique as integral parts of the coursework. Pre-requisite: ART 250 OR consent of instructor. Lab/ Lecture: 3.0 credit hours (90 contact hours).
Components: Lecture
Attributes: Other

ART 254(3) Course ID: 016144
Design Process and Presentation
Continues investigation of design principles, process, vocabulary, methods, and presentation. Transitions from theoretical to applied problems with a focus on portfolio preparation and professionalism in communication. Pre-requisite: ART 251 OR consent of instructor. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 260(3) Course ID: 004119
Sculpture I
Studio investigation of the technical and formal concerns of three-dimensional expression. Basic sculptural methods of modeling, casting, carving and assembling will be explored in a variety of media. Pre-requisite: ART 110, ART130. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 261(3) Course ID: 006207
Sculpture II
Continues the development of sculptural techniques started in Sculpture I. Exploration of subject matter and personal creativity will be emphasized. Students will develop and utilize problem solving skills. Pre-requisite: ART 260 or consent of instructor. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 270(3) Course ID: 006208
Printmaking
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 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 271(3) Course ID: 006209
Printmaking II
Explores concepts and techniques in intaglio, lithography, screen-print and/or relief printing with an introduction to contemporary computer/digital aided printmaking processes. Stresses individual expression by creating original imagery while continuing to learn about printmaking as a process. Emphasizes two-dimensional design and color theory concepts and drawing skills. Pre-requisite: ART 270 or permission of instructor. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 280(3) Course ID: 006210
Beginning Film Photography
Introduces black and white film photographic processes including the use of a camera and the darkroom. Stresses technical and compositional aspects of photography as an art medium. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 281(3) Course ID: 006211
Digital Photography I
Introduction to the skills, techniques and applications needed to create and manipulate digital photographs and to develop an understanding of photography as a fine art medium. Instruction will include the use of the digital camera and its controls to compose and capture photographs, scanning, printing and using Adobe Photoshop as a "digital darkroom". Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 282(3) Course ID: 006212
Digital Photography II
Emphasizes the creation of fine art photographs that reflect the intent and vision of the photographer. Stresses the technical and aesthetic issues relating to image capture, manipulation, printing and presentation. Explores visual and conceptual skills, professional workflow and photographic history. Pre-requisite: ART 281 or permission of instructor. Lecture/Lab: 3 credits (90 contact hours).
Components: Lecture
Attributes: Other
ART 290(3) Course ID: 006213
Survival Skills for Artists
Introduces skills needed to attain a higher level of education and/or a career in the visual arts. Explores the wording and formatting of credentials and statements. Covers the critical language of art, digital and printed portfolios, exhibiting artwork, marketing, career opportunities, the hazards of art materials and setting up an art studio. Pre-requisite: 9 credits of ART 100/200 level classes or permission of instructor. Lecture: 2 credits (30 contact hours), Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
ART 299(1-3) Course ID: 006214 Instructor Consent Required
Directed Studies in Art: (Topic)
Provides an opportunity to cover topics outside the normal range of studio classes or further investigation of topics and techniques covered in studio classes. Pre-requisite: Consent of instructor. Laboratory: 1-3 credits (30-90 contact hours).
Components: Laboratory
Attributes: Other
ART 1001(1) Course ID: 007381
Art Theory and Design
Provides a basic overview of art theory, philosophy, elements, and principles of design. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
ART 1002(1) Course ID: 007382
Art Media and Critique
Introduces students to different forms of art, the media to create art, and the analysis and critique of art using terminology and vocabulary specific to the visual arts. Pre-requisite: ART 1001. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
ART 1003(1) Course ID: 007383
Introduction to Art History
Introduces students to the developments in art from the prehistoric through contemporary eras. Pre-requisite: 1001. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
ASC Animal Sciences
ASC 106(3) Course ID: 000056
Agricultural Animal Science
Relationships of food production and consumption to income of humans throughout the world; major livestock (beef and dairy cattle, sheep, swine, poultry, and horses) production areas of the world; relationships between live animal merit and yield of retail cuts of meat; identification of skeletal components; identification and functions of reproductive and digestive tract components; characteristics of breeds of beef and dairy cattle, sheep, swine, poultry and horses. Lecture: 3 credits (45 contact hours)
Components: Lecture
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: University Course (Eastern Kentucky University), Foreign Language
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 credits (15 contact hours).
Components: Laboratory, Lecture
Attributes: University Course (Eastern Kentucky University), Foreign Language
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.
Components: Laboratory, Lecture
Attributes: University Course (Eastern Kentucky University), Foreign Language
ASL 202(3) Course ID: 005756
American Sign Language IV
Continued development of intermediate expressive and receptive ASL skills and cultural features of the language and community. Pre-requisite: ASL 201 with a minimum grade of C or permission of instructor. Lecture: 3 credits (45 contact hours), Laboratory: 0 credits (15 contact hours).
Components: Laboratory, Lecture
Attributes: University Course (Eastern Kentucky University), Foreign Language
AST 101(3) Course ID: 000058
Frontiers of Astronomy
Covers the life histories of stars, the nature of black holes and quasars, the origin of the universe, planets of the solar system, and the possibilities for extraterrestrial life. Includes observation-based activities. A one-semester introductory course for non-science majors. Credit is not given to students who have received credit for AST 191 or AST 192. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science
AST 102(3) Course ID: 000060
Stars, Galaxies and the Universe
Emphasizes the Sun and the universe outside 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 103(3) Course ID: 000062
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 153 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: BIO 155
Attributes: SN - Science
AST 104(3) Course ID: 000064
Astronomy Lab
Provides instruction in the identification, cause, prevention, 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
AST Astronomy
AST 105(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 153 and AST 155. Pre-requisite: MT065 and ENC091 or equivalent as determined by KCTCS placement examination. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science
AST 106(3) Course ID: 007114
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
AST 108(3) Course ID: 007116
Introduction to Aircraft Maintenance III
Provides instruction in reading and interpretation of basic industrial and aircraft blueprints, basic handling and ground service techniques of the aircraft, the use of maintenance publications, aircraft mechanic privileges and limitations, and the use and completion of required forms and records. Pre-requisite: Computer Literacy or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical
AST 109(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 components. 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 Aircraft Structures I
ATE 102(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 struts, brakes, wheels, tires, and steering system. Pre-requisite: ((ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).

Components: Lecture Attributes: Technical

ATE 224(3) Course ID: 007123
Aircraft Systems II
Covers inspection, inspecting, troubleshooting and repair of aircraft electrical system and system components. Pre-requisite: ((ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).

Components: Lecture Attributes: Technical

ATE 226(3) Course ID: 007124
Aircraft Systems III
Covers checking, inspection, servicing, repair and troubleshooting of fuel systems and components, heating, cooling, air conditioning, pressurization, and oxygen systems; and snow, ice and cold control and removal systems. Includes types of fuels used in various aircraft and a discussion of the problems associated with fueling and various techniques in fueling. Pre-requisite: ((ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).

Components: Lecture Attributes: Technical

ATE 242(3) Course ID: 007126
Aircraft Powerplants I
Covers theory and development of the aircraft internal combustion engine as well as instruction in the use of engine construction and repair. Pre-requisite: ((ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).

Components: Lecture Attributes: Technical

ATE 244(3) Course ID: 007127
Aircraft Powerplants II
Covers inspection, checking, servicing and the repair of opposed and radial engines and reciprocating engine installation. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).

Components: Lecture Attributes: Technical

ATE 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 the purpose, use, and selection of lubricants; repair of engine lubrication system components; and the inspection, checking, servicing, troubleshooting and repairing of engine lubrication systems, propeller synchronizing and ice control systems, fixed-pitch, constant-speed, and feathering propellers, and propeller governing systems. Provides for the identification and selection of propeller lubricants, balance propellers, and repair of propeller control system components. Covers the installation, troubleshooting and the removal of propellers. Pre-requisite: ((ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).

Components: Lecture Attributes: Technical

ATE 254(3) Course ID: 007131
Aircraft Powerplants V
Covers troubleshooting, servicing and repair of fluid rate of flow indicating systems and repair of engine temperature, pressure, and rpm indicating systems. Includes the operation and overhaul of magneto and ignition harness; repair of engine ignition system components; and the inspection, check, service, troubleshooting, and repair of reciprocating and turbine engine ignition systems. Pre-requisite: ((ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).

Components: Lecture Attributes: Technical

ATE 256(3) Course ID: 007132
Aircraft Powerplants V
Includes the inspection, checking, troubleshooting, servicing and repair of engine ice and rain control systems, heat exchangers, carburetor air intake and induction manifolds. Covers the repair of engine electrical system components, and the installing, checking, and servicing of engine electrical wiring, controls, switches, indicators, and protective devices. Pre-requisite: ((ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).

Components: Lecture Attributes: Technical

ATE 258(3) Course ID: 007133
Aircraft Powerplant Systems IV
Covers the operation, inspection and repair of fuel systems and components of aircraft fuel systems and fuel metering systems. Includes the inspection and repair of engine cooling system components, engine exhaust system components, and engine fire detection and extinguishing systems. Pre-requisite: ((ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).

Components: Lecture Attributes: Technical

ATE 292(3) Course ID: 006783
Introduction To Aviation Electronics
Provides instruction in basic to intermediate electronics and specifically how they relate to aviation maintenance technology. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Pilot Course, Technical

ATE 293(3) Course ID: 006784
GROL+Radar Exam Prep
Provides instruction and preparation for the FCC General Radio Operators License and Radar endorsement exams. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Pilot Course, Technical

ATE 298(1 - 6) Course ID: 004550
Instructor Consent Required
Selected Topics in Aviation Maintenance Technology: (Topic)
Various aviation maintenance topics, issues and trends will be addressed. Topics may vary from semester to semester at the discretion of the instructors; course may be repeated with different topics to a maximum of six credit hours. Lecture: varies. Laboratory: varies. Pre-requisite: Consent of Instructor.

Components: Laboratory, Lecture Attributes: Technical

AUT Automotive Technology

AUT 110(3) Course ID: 001050
Brake Systems
Involves the operational theory and application of hydraulic and anti-lock brake systems; discusses disc and drum brakes. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

AUT 111(2) Course ID: 001051
Brake Systems Lab
Develop 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 work experience alternating between periods of work off campus and work in a classroom laboratory setting. Pre-requisite or co-requisite: AUT 110. Lab: 2.0 credits (90 contact hours).

Components: Laboratory Attributes: Technical

AUT 130(3) Course ID: 001052
Manual Drive Train and Axles
Involves an in-depth study of principles of operation, construction, and service of manual transmissions and related drive train components (differentials, clutches, u-joints, rear wheel drive and 4-wheel drive). Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical
AUT 131(2) Course ID: 001053
Manual Drive Train and Axles Lab
Develops skills in the diagnosis and repair of manual transmissions and related drive train components (differentials, clutches, u-joints, rear wheel drive, and 4-wheel drive). The student may be provided a work experience alternating between periods of work off campus and work in a classroom laboratory setting. Pre-requisite or Co-requisite: AUT 130. Lab: 2.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

AUT 140(3) Course ID: 001054
Basic Fuel and Ignition Systems
Includes the theory, component identification, application, operation, service and repair of the basic automotive ignition, fuel, and emission systems, including related components. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AUT 141(2) Course ID: 001055
Basic Fuel and Ignition Systems Lab
Provides skills necessary to diagnose and repair the automotive basic ignition, fuel, and emission systems and related components are developed. The student may be provided a unique work experience alternating between periods of work on-site and work in a classroom laboratory setting. Pre-requisite or Co-requisite: AUT 140. Lab: 2.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

AUT 142(3) Course ID: 001056
Emission Systems
Presents the theory, component identification, application, operation, service and repair of advanced automotive ignition, fuel, and emission systems, including related components. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AUT 143(2) Course ID: 001057
Emission Systems Lab
Introduces skills necessary to diagnose, service and repair automotive advanced ignition, fuel, and emission systems, including related components are developed. The student may be provided a work-study experience alternating between periods of work off campus and work in a classroom laboratory setting. Pre-requisite or Co-requisite: AUT 142. Lab: 2.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

AUT 160(3) Course ID: 001058
Suspension and Steering
Presents the automotive suspension system, the diagnosing of suspension problems, identifying components, recognizing tire wear problems, wheel balancing and the use of alignment. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AUT 161(2) Course ID: 001059
Suspension and Steering Lab
Introduces skills necessary in the diagnosis and repair of automotive suspension systems, wheel alignment, and wheel balancing. The student may be provided a work experience alternating between periods of work off campus and work in a classroom laboratory setting. Pre-requisite or Co-requisite: AUT 160. Lab: 2.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

AUT 162(3) Course ID: 001060
Automatic Transmission/Transaxle
Involves the study of the operating principles of rear and front wheel drive automatic transmissions and transaxles and the testing and diagnostic process. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AUT 163(2) Course ID: 001061
Automatic Transmission/Transaxle Lab
Develops diagnostic and repair skills related to the operation of rear and front wheel automatic transmissions and transaxles. The student may be provided a work experience alternating between periods of work off campus and work in a classroom laboratory setting. Pre-requisite or Co-requisite: AUT 160. Lab: 2.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

AUT 198(1) Course ID: 001062
Instructor Consent Required
Practicum
The Practicum provides supervised on-the-job work experience related to the student’s educational objectives. Students who participate in the practicum do not receive compensation. Pre-requisite: Permission of the Instructor
Components: Practicum
Attributes: Technical

AUT 240(3) Course ID: 001064
Computer Controls Systems and Diagnosis
Presents the comprehensive diagnostics of on-board computer control systems, including distributorless ignition systems. Presents the problem solving process including flowchart reading. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AUT 241(2) Course ID: 001065
Computer Controls Systems and Diagnosis Lab
Introduces the skills necessary to diagnose and repair drivability problems associated with on-board computer control systems. The student may be provided a work experience alternating between periods of work off campus and work in a classroom laboratory setting. Pre-requisite or Co-requisite: AUT 240. Lab: 2.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

AUT 275(3) Course ID: 006889
Hybrid and Electric Vehicle Technology
Focuses on the theories, principles, and diagnosis related to hybrid automobiles. Pre-requisite: ADX 120 and ADX 121 and ADX 150 and ADX 151 and AUT 140 and AUT141 and AUT 142 and AUT 143. Co-requisite: AUT 276. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AUT 276(2) Course ID: 006890
Hybrid and Electric Vehicle Technology Lab
Focuses on the theories, principles, and diagnosis related to hybrid automobiles. Pre-requisite: ADX 120/121, ADX 150/151, AUT 140/141, AUT 142/143. Co-requisite: AUT 275. Lab: 2.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

AUT 291(2) Course ID: 001067
Instructor Consent Required
Special Problems II
A course designed for the student who has demonstrated specific needs for additional training. The student may be provided a work/study experience alternating between periods of work off campus and work in a classroom laboratory setting. Pre-requisite: Permission of Instructor.
Components: Laboratory
Attributes: Technical

AUT 292(3) Course ID: 001068
Instructor Consent Required
Special Problems III
A course designed for the student who has demonstrated specific needs for additional training. The student may be provided a work/study experience alternating between periods of work off campus and work in a classroom laboratory setting. Pre-requisite: Permission of Instructor.
Components: Laboratory
Attributes: Technical

AUT 298(1) Course ID: 001070
Instructor Consent Required
Cooperative Education Program
Co-op provides supervised on-the-job work experience related to the students educational objectives. Students who participate in the Cooperative Education program receive compensation for their work. Pre-requisite: Permission of the Instructor
Components: Practicum
Attributes: Technical

BAM 100(6) Course ID: 001071
Introduction to Building & Apartment Maintenance
This course covers required safety practices in the shop and workplace; identification and use of hand tools used in the construction trades; identification of construction materials; interpretation of blueprints and/or drawings; and exposure to various mechanical and structural systems in a residential structure.
Components: Lecture
Attributes: Technical

BAM 110(3) Course ID: 001072
Residential Maintenance Carpentry
This course covers the basic aspects of framing, roofing, window, door, and stair maintenance. The student will receive training in the proper use of ladders and in the handling and storage of building materials. Pre-requisite: BAM 100
Components: Lecture
Attributes: Technical

BAM 120(3) Course ID: 001074
Residential Interior Maintenance
This course covers the basic aspects of drywall hanging, finishing, and repair; painting; window, door, and floor moldings; laying composition and vinyl flooring; and maintaining ceramic tile. Pre-requisite: BAM 100
Components: Lecture
Attributes: Technical

BAM 140(3) Course ID: 001078
Residential Maintenance Wiring
This course covers the basic aspects of electric theory, wire and cables, fixtures and devices, and troubleshooting and maintenance wiring. Pre-requisite: BAM 100
Components: Lecture
Attributes: Technical
Course Descriptions

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 155(3) Course ID: 000100
Personal Selling
Introduces the professional selling process involving a series of interrelated activities with emphasis on planning and delivery of sales presentations and simulation and role playing of sales techniques. Examines the six selling steps including—prospecting, qualifying, presenting, answering objections, closing, and the after-sale service. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

BAS 160(3) Course ID: 000101
Introduction to Business
Introduces business careers, terminology, and the interrelationships of business topics. Presents the complexities of business and the impact on communities and their economies. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BAS 170(3) Course ID: 005244
Entrepreneurship
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
Course Equivalents: MGT 200
Attributes: Course Also Offered in Modules, Technical

BAS 212(3) Course ID: 000105
Introduction to Financial Management
Introduces the basic concepts of managing financial resources and techniques of financial analysis used for practical business decisions. Demonstrates use of financial ratios to evaluate the past performance of the firm, financial planning techniques, the effect of leverage on profitability and risk, the time value of money, and contemporary approaches to working capital management and capital budgeting. Computes financial ratios, constructs pro forma financial statements, conducts break-even analysis, and computes present and future values of funds. 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 250(1) Course ID: 000106
Business Employability Seminar
Creates an error-free portfolio of business employment documents, using computer technology to assist with composition, proofreading, and formatting. Demonstrates proper interviewing skills through mock interviews. Course is offered on a Pass/Fail basis. 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: Technical

BAS 256(3) Course ID: 002280
International Business
Identifies the business and managerial processes in a global context. Examines the importance and impact of the economic, cultural, and political environment on business functions. Determines the effect of management functions as they apply across various cultures. 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. Pre-requisite: BAS 250 or Consent of Instructor. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

BAS 267(3) Course ID: 000107
Introduction to Business Law
Introduces the state and federal court systems, tort and criminal law, law of contracts, partnership, sale of goods, government 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 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 263 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BAS 280(3 - 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: 000111
Principles of Marketing
Introduces marketing functions as it applies to various organizations. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

BAS 283(3) Course ID: 005531
Operations Management
Introduces the fundamental concepts, principles, and practices of operations management. Introduces and examines operations management careers, terminology and concepts in both manufacturing and service organizations. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BAS 284(3) Course ID: 000112
Applied Management Skills
Applies management theories and techniques with emphasis on the action-skills that managers need for success. Examination of various course topics in this capstone course include: delegating, motivating employees, team building, conflict management, coaching, and managing change. Pre-requisite: (BAS 160 and BAS 283) or prior supervisory experience. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BAS 285(3) Course ID: 000113
Problems in Marketing and Management
Demonstrates knowledge of theories and techniques in management and marketing with emphasis on the action-skills that managers need for success. Examines course topics which include: delegating, motivating employees, team building, conflict management, coaching, and managing change. This is a capstone course. Pre-requisite: (BAS 282 and BAS 283) or taken concurrently. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

BAS 287(3) Course ID: 000114
Supervisory Management
Examines the roles and responsibilities of the supervisor, emphasizing human relations skills while recognizing the behavioral factors of individuals and groups in the work environment. Applies conceptual knowledge base and skills to identify and develop the supervisor’s role and responsibilities. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: 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: 005579
Management, Ethics and Society
Examines the business leadership-government-society relationship. Includes business leadership, ethics, decision-making, social costs, corporate responsibility, governance, global trends and the role of government in business. Pre-requisite: BAS 283 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BAS 290(3) Course ID: 000116
Retail Management
Examines retail structure, merchandising, promotions, store control, and decision. Identifies fundamental principles of store organization, consumer behavior, and customer service. Includes retailing trends, opportunities, and problems. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

BAS 291(3) Course ID: 000116
Retail Management
Examines retail structure, merchandising, promotions, store control, and decision. Identifies fundamental principles of store organization, consumer behavior, and customer service. Includes retailing trends, opportunities, and problems. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
BAS 293(3) Course ID: 005249
Principles of Finance
Explain fundamentals of financial concepts and valuation, corporate decisions (with emphasis in financial instruments), the banking system, financial planning, money and interest rates, and capital structure and investments. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

BAS 294(3) Course ID: 005250
Money and Financial Institutions
Presents financial intermediaries and their markets from an economic standpoint. Emphasizes analysis financial institutions and their relationship with the money market, capital market, Federal Reserve System, monetary policy, fiscal policy, regulatory environment, international financial influences, and contemporary trends. Pre-requisite: BAS 212 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

BAS 295(3) Course ID: 005251
International Finance
Covers international finance and financial institutions, including foreign exchange, movements, credit, international financing agencies, and international financial markets. Places emphasis on role of the central bank, international and monetary trade theory, and the theory of exchange rate determination. Discusses role of the International Monetary Fund and the World Bank in financial globalization. Pre-requisite: BAS 212 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

BAS 1201(0.8) Course ID: 005810
The Financial Planning Process
Introduces the student to basic financial planning concepts. Lecture: 0.8 credit (12 contact hours).
Components: Lecture

BAS 1202(0.7) Course ID: 005811
Managing Your Money
Presents basic concepts related to financial institutions, consumer borrowing, and purchasing decisions. Pre-requisite: BAS 1201, or consent of instructor. Lecture: 0.7 credits (10.5 contact hours).
Components: Lecture

BAS 1203(1) Course ID: 005812
Managing Investments
Presents the fundamentals of personal investments. Pre-requisite: BAS 1202, or consent of instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

BAS 1204(0.5) Course ID: 005813
Protecting Your Resources
Presents the basic concepts of asset protection using insurance and estate planning. Pre-requisite: BAS 1203, or consent of instructor. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

BAS 1601(0.6) Course ID: 005145
The Foundations of Business
Analyzes the essential components of business on a national and global scale. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 1602(0.6) Course ID: 005146
Business Ownership, Money, and Quality
Examines business ownership, monetary systems, and quality principles. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 1603(0.6) Course ID: 005147
Introduction to Management
Identifies management functions and proper management techniques. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 1604(0.6) Course ID: 005148
Introduction to Marketing
Examines marketing functions and effective marketing techniques. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 1605(0.6) Course ID: 005149
Business Decision Making Tools
Identifies decision making tools and their specific applications to business. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 1701(0.5) Course ID: 005245
Product Development
Examines essential information regarding the product development process for a small business. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

BAS 1702(0.5) Course ID: 005246
Entrepreneurial Finance
Identifies current and essential strategies for financing small businesses. Pre-requisite: BAS 1701 or Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

BAS 1703(0.5) Course ID: 005252
Preparing the Business Plan
Examines current and essential strategies for financing small businesses. Pre-requisite: BAS 1702 or Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

BAS 1704(0.5) Course ID: 005247
Small Business Taxes
Examines federal, state and local tax requirements for a small business. Pre-requisite: BAS 1703 or Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

BAS 1705(0.5) Course ID: 005248
The Small Business Law Environment
Examines business and consumer laws for the small business. Pre-requisite: BAS 1704 or Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

BAS 2001(0.5) Course ID: 005284
Small Business Organization
Examines essential information regarding business and consumer laws for the small business. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

BAS 2002(0.5) Course ID: 005285
Essential Small Business Finance
Identifies essential information to finance a small business. Pre-requisite: BAS 2001 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture

BAS 2003(0.5) Course ID: 005286
Essentials of a Small Business Plan
Identifies the essential information to prepare and maintain a small business plan. Pre-requisite: BAS 2002 or Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

BAS 2004(0.5) Course ID: 005287
Small Business Accounting and Financial Records
Examines essential information regarding accounting and financial records for a small business. Pre-requisite: BAS 2003 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture

BAS 2005(0.5) Course ID: 005294
Small Business Marketing
Examines essential information to market a small business. Pre-requisite: BAS 2004 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture

BAS 2006(0.5) Course ID: 005295
Managing Growth in the Small Business
Identifies information essential to managing growth in a small business. Pre-requisite: BAS 2005 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture

BAS 2121(1) Course ID: 006106
Financial Statement Analysis
Examines financial ratios and pro forma financial statements. Pre-requisite: MAT 105 or MAT 110 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

BAS 2122(1) Course ID: 006107
Break-Even Analysis
Introduces break-even analysis and the effects of leverage. Pre-requisite: MAT 105 or MAT 110 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

BAS 2123(1) Course ID: 006108
Time Value of Money, Capital Budgeting, and Applications
Introduces the time value of money to compute present and future values of funds in the budgeting and managing of working capital. Pre-requisite: MAT 105 or MAT 110 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

BAS 2561(1) Course ID: 015764
International Culture & Trade
Examines the importance and impact of the economic, cultural, and political environments on global business functions and managerial processes. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

BAS 2562(1) Course ID: 015765
Global Trade & Foreign Investment
Examines the global trading system, its importance, and the impact of economic, cultural, and political environment on trade and foreign direct investment. Pre-requisite: BAS 2561 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Laboratory

BAS 2563(1) Course ID: 015766
Global Marketing
Examines global marketing and product development strategies and how political, economic, and cultural differences impact them. Pre-requisite: BAS 2562 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

BAS 2671(0.5) Course ID: 005814
Foundation Principles of Business Law
Introduces students to the state and federal court systems, the judicial system (discovery, trial, and appellate processes), along with business organization/formation and how the law affects separate entities as it applies to state and federal regulations. Integrates basic legal terminology. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture
BAS 2672(0.5) Course ID: 005815
Laws and Protection
Introduces students to tort and criminal law, liability, and consumer awareness and protection. Pre-requisite: BAS 2671. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture
BAS 2673(1) Course ID: 005816
Contracts
Introduces law of contracts. Pre-requisite: BAS 2672. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
BAS 2674(0.5) Course ID: 005817
Property Law
Introduces bailment, ownership of personal property, and real property. Pre-requisite: BAS 2673. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture
BAS 2675(0.5) Course ID: 005818
Research and Negotiable Instruments
Introduces negotiable instruments, government regulations, and methods of legal research. Pre-requisite: BAS 2674. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture
BAS 2741(0.6) Course ID: 005150
The Environment of Human Resource Management
Examines the value of human resource management, individual management responsibilities, and the legal environment. Pre-requisite: (BAS 160 and BAS 283) or Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
BAS 2742(0.6) Course ID: 005151
Bringing Employees Into the Organization
Identifies the operational requirements of the employee intake function, including HR planning, job analysis, employee recruitment, and employee selection. Pre-requisite: BAS 2741 or Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
BAS 2743(0.6) Course ID: 005152
Developing and Evaluating Employees
Examines training and development methods, career planning tools, and performance appraisal methods and techniques. Pre-requisite: BAS 2742 or Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
BAS 2744(0.6) Course ID: 005153
Compensating Employees
Identifies compensation design, pay for performance systems, benefits, and employee services. Pre-requisites: BAS 2743 or Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
BAS 2745(0.6) Course ID: 005154
Employee Relations
Recognizes occupational safety and health adherence, collective bargaining issues, and establishing effective working relationships. Pre-requisite: BAS 2744 or Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
BAS 2821(0.5) Course ID: 005288
Introduction to Entrepreneurial Marketing
Introduces small business marketing. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture
BAS 2822(0.5) Course ID: 005289
Environmental Market Strategy Planning
Identifies essential information for an environmental and SWOT analysis in developing marketing objectives for a small business marketing plan. Pre-requisite: BAS 2821 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture
BAS 2823(0.5) Course ID: 005290
Product and Market Strategies
Examines essential information to develop product and marketing strategies for the small business marketing plan. Pre-requisite: BAS 2822 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture
BAS 2824(0.5) Course ID: 005291
Market Distribution and Promotion
Identifies information to develop small business distribution and promotion strategies. Pre-requisite: BAS 2823 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture
BAS 2825(0.5) Course ID: 005292
Pricing Strategies
Identifies pricing strategies for developing small businesses. Pre-requisite: BAS 2824 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture
BAS 2826(0.5) Course ID: 005293
Market Implementation, Evaluation and Control
Examines organization to implement, evaluate and control a small business marketing plan. Pre-requisite: BAS 2825 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture
BAS 2831(0.5) Course ID: 005819
Introduction to Management
Provides an overview and introduction to management and the evolution of management thought. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture
BAS 2832(0.5) Course ID: 005820
Planning and Decision Making
Examines the planning function as it relates to the relationship to other management functions and creative problem solving and decision making. Pre-requisite: BAS 2831 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture
BAS 2833(0.5) Course ID: 005821
The Process of Organizing
Examines organizational process as it applies to formal and informal organizations. Pre-requisite: BAS 2832 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture
BAS 2834(0.5) Course ID: 005822
Leading and Staffing
Develops the concept of leadership and managing change. Examines managing human resources and communication and motivation. Pre-requisite: BAS 2833 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture
BAS 2835(0.5) Course ID: 005823
Controlling
Examines the different aspects of the principles and theories of control as it relates to management information and decision support systems. Pre-requisite: BAS 2834 or Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture
BAS 2836(0.5) Course ID: 005824
Special Concerns in Management
Examines international management and succeeding in one’s career. Pre-requisite: BAS 2835 or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture
BAS 2841(0.6) Course ID: 005825
Effective Decision Making & Delegation
Applies strategies and theories of management to demonstrate the effectiveness of sound decision-making skills and the power of delegation. Pre-requisite: (BAS 160 and BAS 2833) or prior supervisory experience. Lecture: 0.6 credit (9 contact hours).
Components: Lecture
BAS 2842(0.6) Course ID: 005826
Empowerment and Motivation
Examines the theories of motivation and strengthens the manager’s ability to guide institutions and followers through periods of change. Pre-requisite: BAS 2841. Lecture: 0.6 credit (9 contact hours).
Components: Lecture
BAS 2843(0.6) Course ID: 005827
Effective Coaching and Mentoring
Demonstrates importance of delegation and effective use of coaching or mentoring to provide constructive feedback to developing employees. Pre-requisite: BAS 2842. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
BAS 2844(0.6) Course ID: 005828
Communication and Teamwork
Applies communication techniques that allow for effective conflict resolution and encourages strong group outcomes. Pre-requisite: BAS 2843. Lecture: 0.6 credit (9 contact hours).
Components: Lecture
BAS 2845(0.6) Course ID: 005829
Effective Meetings and Quality Processes
Examines effective techniques for conducting meetings and applying theories of quality management. Pre-requisite: BAS 2844. Lecture: 0.6 credit (9 contact hours).
Components: Lecture
BAS 2871(0.6) Course ID: 005155
The Role of the Team Leader
Identifies the new responsibilities of the team leader with emphasis on competencies, planning, and controlling the work environment. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
BAS 2872(0.6) Course ID: 005156
Organizing and Developing Your Team
Recognizes the fundamentals of organizing a work environment, appraising performance, acquiring training, and developing team members. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
BAS 2873(0.6) Course ID: 005157
The Leadership Reins
Examines the attributes of motivation and communication in a variety of leadership styles appropriate for different managerial environments. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
BAS 2874(0.6) Course ID: 005158
Managing the Team Through Conflict and Change
Examines guiding workgroups through constantly changing and challenging work environments in order to achieve organizational priorities. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
BAS 2875(0.6) Course ID: 005159
Decision Making and Problem Solving in a Quality Culture
Identifies principles of effective decision making and problem solving with emphasis on enhancing quality workplace cultures. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
BAS 2881(0.6) Course ID: 005160
Become a Great Leader
Examines leadership philosophies, values, characteristics, and the specific role the leader plays in directing the strategic planning process. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
BAS 2882(0.6) Course ID: 005161
Self Management: Time, Stress, & Effective Change Techniques
Identifies management techniques and skills that provide leaders with the capabilities to maximize both personal and organizational effectiveness. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2883(0.6) Course ID: 005162
Effective Delegation and Empowerment
Identifies strategies of delegation and empowerment that facilitate high levels of organizational effectiveness. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2884(0.6) Course ID: 005163
Communicating for Interdependence
Identifies the use of effective communication techniques that increase interdependence in workgroups. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2885(0.6) Course ID: 005164
Teamwork and Synergy
Emphasizes the dynamics of synergy and the implementation of effective team environments. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2891(0.75) Course ID: 015767
Operations & Productivity
Introduces basic operations management concepts including productivity and global operations management challenges. Pre-requisite: BAS 260 or Consent of Instructor. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture

BAS 2892(0.75) Course ID: 015768
Product Design & Quality
Introduces the concepts of quality management and product/process design, including total quality management, just-in-time, facility layout, and the product life cycle. Pre-requisite: BAS 261 or Consent of Instructor. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture

BAS 2893(0.75) Course ID: 015769
Planning and Scheduling
Examines the importance of planning to organizational success with regards to inventory levels and scheduling. Pre-requisite: BAS 282 or Consent of Instructor. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture

BAS 2894(0.75) Course ID: 015770
Lean Operations & Supply Chain
Demonstrates the use of lean operations techniques, effective project management processes, and the elements of supply chain management to improve efficiency and effectiveness. Pre-requisite: BAS 283 or Consent of Instructor. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture

BAS 2901(1) Course ID: 006103
Moral Philosophy and Business
Examines the nature of morality and the ethical philosophy and nature of business leadership and decision making. Pre-requisite: BAS 283 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

BAS 2902(1) Course ID: 006104
American Business
Examines the nature of capitalism, the social-government relationship, including the business leadership-government-society relationship. Recognizes the importance of decision making, social cost, corporate responsibility, governance, and the role of government in business. Pre-requisite: BAS 2901 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
BIO 135(4) Course ID: 000169
Basic Anatomy and Physiology with Laboratory
Presents the fundamental structure of the human body and the physiological mechanisms involved in normal functioning are presented through lecture and student participation in laboratory activities. Pre-requisite: Reading and English assessment exam scores above the KCTCS developmental level and a mathematics placement score above the score range for MAT 065 or successful completion of the prescribed developmental course(s) or consent of the instructor. Lecture: 3.0 credits (45 contact hours), Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science

BIO 137(4) Course ID: 000172
Human Anatomy and Physiology I
The interrelationship of structure and function of each body system will be presented in two semesters. The first semester will include basic chemistry, cell structure, cell physiology, metabolism, tissues, and integumentary, skeletal, muscular, and nervous systems. Pre-requisite: Reading and English assessment exam scores above the KCTCS developmental level and a mathematics placement score above the score range for MAT 065 or successful completion of the prescribed developmental course(s) or consent of the instructor. Lecture: 3.0 credits (45 contact hours), Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science

BIO 139(4) Course ID: 000174
Human Anatomy and Physiology II
The second semester continues the study of the interrelationships of organ systems, including the endocrine, reproductive, cardiovascular, lymphatic, digestive, respiratory, and urinary systems. Pre-requisite: BIO 137. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science, Course Also Offered in Modules

BIO 140(3) Course ID: 000130
Botany
The anatomy, physiology, and biodiversity of plants emphasizing life processes, the cell, development, heredity, plant systems, evolution, taxonomy, phylogeny and ecology. Pre-requisite: BIO 112 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

BIO 141(4) Course ID: 000178
Botany with Laboratory
The anatomy, physiology, and biodiversity of plants emphasizing life processes, the cell, development, heredity, plant systems, evolution, taxonomy, phylogeny and ecology. Includes laboratory studies of the morphology, physiology, and reproduction of plants with emphasis on flowering plants. Pre-requisite: BIO 112 or consent of instructor. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science

BIO 142(3) Course ID: 000128
Zoology
The anatomy, physiology, and biodiversity of animals emphasizing life processes, the cell, development, heredity, body systems, evolution, taxonomy, phylogeny and ecology. Pre-requisite: BIO 112 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

BIO 143(4) Course ID: 000180
Zoology with Laboratory
The anatomy, physiology, and biodiversity of animals emphasizing life processes, the cell, development, heredity, body systems, evolution, taxonomy, phylogeny and ecology. Pre-requisite: BIO 112 or consent of instructor. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science

BIO 144(3) Course ID: 002215
Insect Biology
Presents an overview of the biology of both beneficial and detrimental insects including physiology, behavior, ecology, and evolution. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

BIO 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 organisimal, 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 organisomal, population and community biology. Laboratory: 2 credits (60 contact hours). Pre-requisite: BIO 152 or concurrent.
Components: Laboratory
Attributes: SL - Science Laboratory

BIO 155 Course ID: 016428
Principles of Microbiology
This course is designed to provide a broad introduction into the data, results, and information associated with biological research. 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 208(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 216(4) Course ID: 006807
Biological Inquiry and Analysis
An inquiry-based introduction to concepts in biology. Research-oriented activities will emphasize the skills and attitudes necessary for understanding and conducting scientific inquiry. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: University Course (Murray State University)

BIO 220(3) Course ID: 000139
The Genetic Perspective
Covers introductory genetics for non-science majors examining how heredity affects humans and the remainder of the living world and providing some insights into other fields of science from the 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
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: SN - Science, Course Also Offered in Modules

BIO 226(3)
Principles of Microbiology
Introduction to fundamental microbiological principles and techniques emphasizing structural functional, ecological, and evolutionary relationships among microorganisms. Includes laboratory exercises in general microbiology. Pre-requisite: BIO 112 or consent of instructor. Lecture: 3 credits (45 contact hours); Laboratory: 2 credit (60 contact hours).
Components: Laboratory, Lecture
Attributes: SN - Science

BIO 227(5) Course ID: 004989
Principles of Microbiology with Laboratory
Introduction to fundamental microbiological principles and techniques emphasizing structural functional, ecological, and evolutionary relationships among microorganisms. Includes laboratory exercises in general microbiology. Pre-requisite: BIO 112 or consent of instructor. Lecture: 3 credits (45 contact hours); Laboratory: 2 credit (60 contact hours).
Components: Laboratory, Lecture
Attributes: SL - Science Laboratory

BIO 285(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

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

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**BIO 1122(0.75)** Course ID: 006123

**Cell Structure, Function, 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 1371(1)** Course ID: 006651

**Chemistry and Cells**

Provides an introduction to cell chemistry, cell structure and function, and the homeostatic relationship among all body systems. There is also an overview of all systems of the body, body regions, directions, and cavities. Pre-requisite: Reading, English, and Mathematics assessment exam scores above the KCTCS developmental placement level or successful completion of the prescribed developmental course(s) or consent of instructor. Lecture/Lab: 1.0 credit (18.75 contact hours). Components: Lecture

**BIO 1372(1)** Course ID: 006652

**Tissue, Skin & Skeletal**

Provides an introduction to the structure and function of major tissue types and anatomy and physiology of the integumentary and skeletal systems as well as common dysfunctions of these. Pre-requisite: BIO 1371. Lecture/Lab: 1.0 credit (18.75 contact hours). Components: Lecture

**BIO 1373(1)** Course ID: 006653

**Muscles and Metabolism**

The interrelationship and structure and function of the muscular system and how it is involved in maintaining homeostasis and how it relates to biochemistry and metabolism. There is also a focus on muscular anatomy and movements. Pre-requisite: BIO 1371 and BIO 1372. Lecture/Lab: 1.0 credit (18.75 contact hours). Components: Lecture

**BIO 1374(1)** Course ID: 006654

**Nervous System**

Provides an introduction to the anatomy and physiology of the nervous system as well as common dysfunctions of this system. Pre-requisite: BIO 1371, BIO 1372, and BIO 1373. Lecture/Lab: 1.0 credit (18.75 contact hours). Components: Lecture

**BIO 1391(1)** Course ID: 006655

**Endocrine and Reproduction**

Provides an introduction to the anatomy and physiology of the endocrine and reproductive systems as Pre-requisite: BIO 137. Lecture/Lab: 1.0 credit (18.75 contact hours). Components: Lecture

**BIO 1392(1)** Course ID: 006656

**Digestive and Lymphatic System**

Provides an introduction to the anatomy and physiology of the digestive and lymphatic systems as well as common dysfunctions of these systems. Pre-requisite: BIO 1391. Lecture/Lab: 1.0 credit (18.75 contact hours). Components: Lecture

**BIO 1393(1)** Course ID: 006657

**Cardiovascular System**

Provides an introduction to the anatomy and physiology of the cardiovascular system as well as common dysfunctions of this system. Pre-requisite: BIO 1391 and BIO 1392. Lecture/Lab: 1.0 credit (18.75 contact hours). Components: Lecture

**BIO 1394(1)** Course ID: 006658

**Respiratory and Urinary**

Provides an introduction to the anatomy and physiology of the respiratory and urinary systems as well as common dysfunctions of these systems. Also provides an overview of the physiological processes of water and electrolyte balance and mechanisms of homeostasis within these systems. Pre-requisite: BIO 1391, BIO 1392, BIO 1393. Lecture/Lab: 1.0 credit (18.75 contact hours). Components: Lecture

**BIOL Biological Sciences**

**BIOL 110(3)** Course ID: 006760

**Inquiry Biology for Teachers**

Introduces the study of living things, cell structure and function, photosynthesis, respiration, reproduction, growth, heredity, evolution, and ecology. It is NOT ACCEPTABLE for biology majors, minors, or areas. This course satisfies the area studies-natural and mathematical sciences for general education only for education majors. Lecture: 3.0 credits (60 contact hours). Components: Lecture Attributes: University Course (Morehead State University)

**BMT Business and Office Technology**

**BMT 120(4)** Course ID: 001135

**Essentials of Analog and Digital Electronics for BMETs: Level 1**

Emphasizes basic analog and digital devices and associated circuits as well as their use within medical equipment. Pre-requisite or Co-requisite: AIT 110. Lecture/Lab: 4 credits (75 contact hours). (30:1 Ratio Lab) Components: Lecture Attributes: Technical

**BMT 130(4)** Course ID: 005953

**Essentials of Analog and Digital Electronics for BMETs: Level 2**

Emphasizes advanced analog and digital devices and associated circuits as well as their use within medical equipment. Pre-requisite: BMT 120. Lecture/Lab: 4 credits (75 contact hours). (30:1 Ratio Lab) Components: Lecture Attributes: Technical

**BMT 140(4)** Course ID: 005954

**Biomedical Instrumentation and Biophysical Measurements**

Emphasizes biophysical signals and measurements obtained from the human body, their clinical significance, factors which may affect their appearance or numerical value, and the technology used to detect, process, display and record such information. Pre-requisite: BMT 130 and BIO 135 Pre-requisite or Co-requisite: PH 171. Lecture/Lab: 4 credits (90 contact hours). (30:1 Ratio Lab) Components: Lecture Attributes: Technical

**BMT 210(1)** Course ID: 001138

**Fundamental Engineering Design Principles Encountered in Medical Technology**

Emphasizes a variety of engineering and scientific principles and their applications in the design and operation of medical equipment including pressure, fluid mechanics, thermodynamics, optics, and sound. Pre-requisite: PH 171 and (MT 125 or higher). Lecture/Lab: 1 credit (18 contact hours) (30:1 Ratio). Components: Lecture Attributes: Technical

**BMT 215(4)** Course ID: 005966

**Principles and Practices of Medical Equipment Maintenance and Management**

Investigates key aspects of a Medical Technology Management Program. Emphasizes medical device service principles and practices including inspecting, testing, maintenance, calibration, and repairs. Pre-requisite: BMT 110. Co-requisite: BMT 230. Lecture/Lab: 4 credits (75 contact hours) (30:1 Ratio Lab). Components: Lecture Attributes: Technical

**BMT 230(3)** Course ID: 001140

**Understanding, Maintaining, and Servicing Medical Equipment**

Explores the purpose and functionality of various types of medical technology as well as their performance testing, maintenance, and management requirements. Pre-requisite: BMT 130. Pre-requisite or Co-requisite: BMT 140 and BMT 215. Lecture/Lab: 3 credits (60 contact hours). (30:1 Ratio Lab). Components: Lecture Attributes: Technical

**BMT 240(2)** Course ID: 001141

**Understanding, Maintaining, and Servicing Specialized Medical Equipment**

Explores the purpose and functionality of various types of specialized medical technology as well as their performance testing, maintenance, and management requirements. Emphasizes mechanical ventilators, anesthesia machines, hemodialysis machines, video endoscopy systems, and other imaging modalities such as digital radiography, fluoroscopy, and diagnostic ultrasound. Pre-requisite: BMT 130 or consent of instructor. BMT 210 and BMT 215 Pre-requisite or Co-requisite: BMT 110. Lecture/Lab: 3 credits (60 contact hours). (30:1 Ratio Lab) Components: Lecture Attributes: Technical
BRX Blueprint Reading
BRX 110(2) Course ID: 001146
Basic Blueprint Reading for Machinist
Basic applied math, lines, multi-view drawings, symbols, various schematics and diagrams, dimensioning techniques, sectional views, auxiliary views, threads and fasteners, and sketching typical to all shop drawings are presented. Safety will be emphasized as an integral part of the course. Lecture: 2 credit hours (30 contact hours).
Components: Lecture
Attributes: Technical

BRX 112(4) Course ID: 001147
Blueprint Reading for Machinist
Provides the student with a beginning and advanced series of lectures, demonstrations, and practice exercises in the study of prints 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: 3 credits (30 contact hours).
Components: Lecture
Course Equivalents: ELT 102
Attributes: Course Also Offered in Modules, Technical

BRX 210(2) Course ID: 001151
Mechanical Blueprint Reading
Provides the student with an advanced series of lectures, demonstrations, and practice exercises in the study of prints involving math (both decimal and metric), combination of lines, multi-view drawings, assembly drawings, fasteners, machining and construction processes, datum coordinates, numerical control prints, sheet metal prints, welding, casting and forging prints. Safety will be emphasized. Lecture: 2 credits (30 contact hours).
Pre-requisite: BRX 110 with a grade of C or greater
Components: Lecture
Attributes: Technical

BRX 220(3) Course ID: 001150
Blueprint Reading for Construction
Provides a series of lectures, demonstrations, and practice exercises in the study of symbols, views, sections, details, and material lists found on architectural working drawings, building materials and specifications lists, and construction dimensioning systems and charts/schedules. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BRX 2201(1) Course ID: 016150
Basic Construction Prints
Provides a series of lectures, demonstrations, and practice exercises in the study of symbols, views, sections, details, and material lists found on architectural working drawings and construction dimensioning systems and measurements. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

BRX 2202(2) Course ID: 016151
Construction Blueprints
Provides a series of lectures and practice exercises in the study of symbols, views, sections, details, and material lists found on architectural working drawings, building materials and specifications lists, and charts/schedules. Pre-requisite: BRX 2201 or Consent of Instructor. Lecture: 2.0 credits (30 contact hours).
Components: Lecture

BSE Building Science Engineering
BSE 150(5) Course ID: 006867
Energy Auditor Preparation
Provides a scientific foundation upon which inspectors and auditors can build an accurate understanding of modern structures including an overview of technology, examples of typical installations and their defects, procedures for performing audits, and guidelines for analyzing potential retrofits. Presents a balanced approach to building performance to address energy efficiency, building durability, and human health. Lecture/Lab: 5.0 credits (90 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

BSE 1502(1) Course ID: 006863
Building Assessment Skills
Assess the building construction techniques and use measurements to evaluate building performance. Lecture/Lab: 1.0 credit (18 contact hours).
Components: Lecture

BTN Biotechnology Laboratory Technician
BTN 110(4) Course ID: 004984
Nucleic Acid Methods
Covers theory of DNA structure and function. Emphasizes laboratory skills in a variety of DNA manipulations. Pre-requisite: One semester of college biology with lab or college chemistry with lab or consent of instructor. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

BTN 115(4) Course ID: 007347
Biomaterials
Surveys basic biomaterials 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 120(4) Biofuels
Course ID: 007348
Introduces students to combustion fuels made from nonpetroleum sources, and includes topics on feedstocks, processing, utilization, and social impacts. Pre-requisite: Completion of BTN 201 and BTN 202 with a grade of C or better, or permission of program coordinator. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

BTN 125(2) Bioinformatics
Course ID: 007349
Introduces the concepts and tools used in the application of information technology to the field of biology. Includes methods for data collection, storing and accessing biological data, fundamentals of sequence alignment, biological molecule structure prediction, and data mining and analysis. Pre-requisite or Co-requisite: Completion of, or concurrent enrollment in BTN 201 and BTN 202. Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

BTN 126(2) Bioinformatics II
Course ID: 007350
Applies concepts introduced in BTN 125 in the design and implementation of basic programming relating to bioinformatics problems. Emphasizes current trends in bioinformatics programming language, databases, and technology. Pre-requisite: Completion of BTN 125 with a grade of C or better or permission of program coordinator. Lab: 2.0 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

BTN 160(4) Introduction to Agricultural Biotechnology
Course ID: 007351
Introduces theory and methods relating to applications of biotechnology in agriculture. Emphasizes emerging laboratory technologies in the area of agricultural biotechnology including food and natural resource management. Explores plant and animal genetic engineering. Pre-requisite: BTN 201 and BTN 202 with a grade of C or better, or permission of the program coordinator. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

BTN 110(4) Course ID: 004984
Nucleic Acid Methods
Covers theory of DNA structure and function. Emphasizes laboratory skills in a variety of DNA manipulations. Pre-requisite: One semester of college biology with lab or college chemistry with lab or consent of instructor. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

BTN 115(4) Course ID: 007347
Biomaterials
Surveys basic biomaterials 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 120(4) Biofuels
Course ID: 007348
Introduces students to combustion fuels made from nonpetroleum sources, and includes topics on feedstocks, processing, utilization, and social impacts. Pre-requisite: Completion of BTN 201 and BTN 202 with a grade of C or better, or permission of program coordinator. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

BTN 125(2) Bioinformatics
Course ID: 007349
Introduces the concepts and tools used in the application of information technology to the field of biology. Includes methods for data collection, storing and accessing biological data, fundamentals of sequence alignment, biological molecule structure prediction, and data mining and analysis. Pre-requisite or Co-requisite: Completion of, or concurrent enrollment in BTN 201 and BTN 202. Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

BTN 126(2) Bioinformatics II
Course ID: 007350
Applies concepts introduced in BTN 125 in the design and implementation of basic programming relating to bioinformatics problems. Emphasizes current trends in bioinformatics programming language, databases, and technology. Pre-requisite: Completion of BTN 125 with a grade of C or better or permission of program coordinator. Lab: 2.0 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

BTN 160(4) Introduction to Agricultural Biotechnology
Course ID: 007351
Introduces theory and methods relating to applications of biotechnology in agriculture. Emphasizes emerging laboratory technologies in the area of agricultural biotechnology including food and natural resource management. Explores plant and animal genetic engineering. Pre-requisite: BTN 201 and BTN 202 with a grade of C or better, or permission of the program coordinator. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

BTN 110(4) Course ID: 004984
Nucleic Acid Methods
Covers theory of DNA structure and function. Emphasizes laboratory skills in a variety of DNA manipulations. Pre-requisite: One semester of college biology with lab or college chemistry with lab or consent of instructor. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

BTN 115(4) Course ID: 007347
Biomaterials
Surveys basic biomaterials 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 201(4)  Course ID: 005620  Biotechnology Techniques I
Introduces theory and techniques for media and solution preparations, use of analytical equipment, and laboratory safety. Includes various nucleic acid techniques, gene expression and purification, and bioinformatics. Pre-requisite: A semester of college biology with lab or college chemistry with lab or consent of instructor. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture  Attributes: Technical

BTN 202(4)  Course ID: 005621  Biotechnology Techniques II
Covers various protein techniques, extraction and purification, and assays. Pre-requisite: BTN 201. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture  Attributes: Technical

BTN 210(4)  Course ID: 004985  Cell Culture and Function
Covers use of cell culture in modern biotechnological applications with emphasis on laboratory skills in a variety of cell culture techniques. Pre-requisite: (BTN 110 with a grade of C or better) or consent of instructor. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture  Attributes: Technical

BTN 220(4)  Course ID: 004986  Immunological Methods
Covers immunological theory and applications with focus on techniques such as isolation, purification, and labeling of antibody molecules. Pre-requisite: (BTN 110 with a grade of C or better) or consent of instructor. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture  Attributes: Technical

BTN 225(4)  Course ID: 007352  Protein Bioseparation Methods
Introduces the strategies to purify proteins as part of a biotechnology process. Introduces specific methods such as activity assays for enzymes, extraction of proteins from bacterial cells, dialyzing out, dialysis, ion exchange chromatography, and polyacylamide gel electrophoresis. Pre-requisite: Completion of BTN 201 and BTN 202 with a grade of C or better, or permission of the program coordinator. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture  Attributes: Technical

BTN 295(1 - 3)  Course ID: 007353  Independent Investigation in Biotechnology
Investigates specific topics or problems in the field of the biotechnology under direction of the faculty. May be repeated for a maximum of six credits. Laboratory varies with credit. Pre-requisite: Permission of instructor. Lab: 1.0 - 3.0 credits (30-90 contact hours).
Components: Laboratory  Attributes: Technical

BTN 298(1 - 8)  Course ID: 007354  Biotechnology Learning Laboratory
Provides contextual, real-world experience and an opportunity to reinforce previously learned concepts, skills, and critical thinking ability related to business and technical job functions typical of biotechnology companies. Prepares students to conduct mentored activities on various workforce projects assigned by Biotechnology faculty/ staff or in collaboration with biotechnology companies at the Learning Laboratory. Emphasizes twenty-first century skills and workforce readiness. May be repeated for a maximum of 8 credits. Pre-requisite or Co-requisite: Completion of BTN 201 and BTN 202 with a C or better, or permission of program coordinator. Practicum: 1.0 - 8.0 credits (60-480 contact hours).
Components: Practicum  Attributes: Technical

BTN 299(1 - 3)  Course ID: 007355  Selected Topics in Biotechnology
Addresses recent trends and discoveries in selected areas of biotechnology in a seminar format. Emphasizes discussion and critical thinking. May be repeated for a maximum of 12 credits if topics and/or learning outcomes vary. Pre-requisite: Permission of instructor. Lecture: 1.0 - 3.0 credits (15-45 contact hours).
Components: Lecture  Attributes: Technical

BTN 100(1)  Course ID: 007224  Biomedical Technology Systems: A Career Perspective
Offers insight into the profession for which services are provided to Biomedical Technology Systems with regards to career opportunities, job expectations, and professional growth. Pre-requisite: RDG 30 or equivalent based on KCTCS placement exam. Lecture: 1.0 credit (15 contact hours).
Components: Lecture  Attributes: Technical

BTN 110(1)  Course ID: 007225  Environmental Risks and Precautionary Measures for the BTS Service Professional
Presents potential risks for which those involved with Biomedical Technology Systems will encounter and precautionary measures taken to assure that no harm is done. Focuses on safety awareness and management throughout the entire healthcare setting including identifying risks associated with the use and maintenance of medical technologies. Pre-requisite: RDG 30 or equivalent based on KCTCS placement exam. Lecture: 1.0 credit (15 contact hours).
Components: Lecture  Attributes: Technical

BTN 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

BTN 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 BTN 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: BTN 120 with a grade of C or better. Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture  Attributes: Technical

BTN 130(2)  Course ID: 007228  Medical Equipment Management I
Presents medical technology management, principles and practices with regard to medical equipment assessment, planning, acquisition, acceptance, and replacement and disposal. Pre-requisite: BTS 100, BTS 110 and AIT 110(1 each with a grade of C or better). Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture  Attributes: Technical

BTN 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

BTN 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 abdution systems, and telematics. Pre-requisite: BTS 125 with a grade of C or better. Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture  Attributes: Technical

BTN 210(2)  Course ID: 007231  Diagnostic Medical Equipment and Non-Radiographic Imaging Modalities
Presents medical equipment and instrumentation used to assess biophysical signals and images for diagnostic purposes. Examines such technology in terms of principles of operation and measuring its performance. Focuses on a variety of diagnostic technologies including the electrocardiograph and electroencephalograph machines, the pulmonary function analyzer, video endoscopy systems, ultrasound-generating machines, and magnetic resonance imaging (MRI) systems. Pre-requisite: BIO 135, BTS 110, BTS 125, and BTS 140 (each with a grade of C or better). Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture  Attributes: Technical

BTN 220(2)  Course ID: 007232  Laboratory Devices, Instruments, and Analyzers
Presents instruments employed in the clinical laboratory setting with regard to purpose, design, maintenance, and management. Focuses on technologies such as centrifuges, microscopes, hematology analyzers, blood gas analyzers, electrolyte analyzers, clinical chemistry analyzers, and tissue processors. Pre-requisite: BIO 135 with a grade of C or better BTS 110 with a grade of C or better BTS 125 with a grade of C or better BTS 140 with a grade of C or better. Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture  Attributes: Technical

BTN 230(2)  Course ID: 007233  Medical Equipment Management II
Presents medical technology management principles and practices with regard to ongoing training of staff, ongoing medical equipment maintenance, ongoing risk management, and ongoing quality assurance necessary to assure that equipment is safe and adequately maintained. Focuses on record keeping and compliance with codes, standards, and regulations. Pre-requisite: BTS 130 with a grade of C or better. Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture  Attributes: Technical
BTS 250(2) Course ID: 007234
Introduction to Medical-Based IT Networks and Standards
Pre-requisite: CIT 160. Pre-requisite or Co-require: CIT 180. Lecture: 2.0 credits (30 contact hours).
Components: Lecture Attributes: Technical

BTS 280(2) Course ID: 007235
Radiographic Imaging Modalities
Pre-requisite: CIT 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
Pre-requisite: CIT 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
Pre-requisite: CIT 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 280(2) Course ID: 007238
General Care Monitoring and Instrumentation
Pre-requisite: CIT 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 295(2) Course ID: 007239
Critical Care Monitoring and Instrumentation
Pre-requisite: CIT 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 290(2) Course ID: 007240
Clinical Experience in Biomedical Technology Systems
Pre-requisite: CIT 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

CAD 100(3) Course ID: 000216
Introduction to Computer Aided Design
Pre-requisite: CIT 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

CAD 103(4) Course ID: 015755
CAD Fundamentals
Pre-requisite: CIT 135, BTS 125, and BTS 140 (each with a grade of C or better). Lecture/Lab: 4.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

CAD 108(3) Course ID: 005186
Introduction to Surveying
Pre-requisite: CIT 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

CAD 112(4) Course ID: 000457
Intermediate Computer Aided Drafting
Pre-requisite: CIT 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

CAD 120(4) Course ID: 000218
Intermediate CAD Drafting
Pre-requisite: CIT 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
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: 2.0 credits (30 contact hours), Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture Attributes: Technical

CAD 216 Course ID: 016429
Building Information Modeling
Introduces Building Information Modeling (BIM), an intelligent model-based process that provides insight to help plan, design, construct, manage buildings and infrastructure through three dimensional models, and generate construction drawing sheet sets. Creates structures for analytical purposes such as visualization, quality take off, cost estimating, scheduling, coordination and facility management across various fields, including architectural, structural and mechanical, electrical, and plumbing. Using BIM technology enables discovery of potential conflicts between these fields. Lecture/Lab: 2.0 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: 2.0 credits (30 contact hours), Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture Attributes: Technical

CAD 222(4) Course ID: 004061
Mechanical Design
Explores the design principles, mechanical adaptation, and drawing practices 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: 2.0 credits (30 contact hours), Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory, 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: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture Attributes: Technical

CAD 240(4) Course ID: 004008
Advanced Dimensioning and Measurement
Presents an in-depth study of advanced industrial dimensioning principles, tolerances, fits, and A.N.S.I. standards. Explores shape and geometric characteristics of parts through geometric dimensioning and tolerancing through drawing application and study. Pre-requisite: CAD 100 with a grade of C or better or approval of the Instructor. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture 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: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture Attributes: Technical

CAD 262(4) Course ID: 005185
Working Drawings
Prepare a set of working drawings to be used in a portfolio that shows mastery of the architectural drawing processes and knowledge of building construction techniques. Pre-requisite: CAD 120 with a grade of C or better or Approval of the instructor. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours).
Components: Laboratory, 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 determined by the program instructor. Pre-requisite: Approval of Instructor. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours).
Components: Laboratory, 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 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: 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-requisite: Approval of Program Coordinator. Practicum: 1.0-3.0 credits (45-135 contact hours).
Components: Practicum

Attributes: Technical

CAD 299(1 - 3) Course ID: 004066
Department Consent Required
Cooperative Education
Provides supervised on-the-job work experience related to the student’s educational objectives. Students participating in the Co-op Education program receive compensation for their work. Pre-requisite: Approval of Program Coordinator. Co-op: 1.0-3.0 credits (45-135 contact hours).
Components: Co-Op Attributes: Technical

CAR Construction/Carpentry

CAD 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-requisite: CAR 126. Laboratory: 1 credit (30 contact hours).
Components: Laboratory Attributes: Technical

CAR 140(3) Course ID: 001154
Surveying & Foundations
Introduces the student to heavy and commercial concrete formwork construction methods to be used in the construction of foundation systems as well as discussion on the use of the builders level, transit and laser levels. Covers the characteristics of concrete, excavation procedures, forming methods and material estimating. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

CAR 141(2) Course ID: 001155
Surveying & Foundations-Lab
Familiarizes the student with construction surveying methods, site layout procedures and materials used in the construction of foundation systems as well as the application of the builders level, transit and laser levels. Covers the application of concrete procedures, excavation procedures, forming methods and material estimating. Co-requisite: CAR 140. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

CAR 150(3) Course ID: 001156
Concrete Formwork
Introduces the carpentry student to heavy and commercial concrete form construction methods. Covers information about properties of concrete as a building material, rigging, concrete wall form systems, above grade floor systems, vertical pier and column forms systems, on grade curb forms, horizontal beam forms, fire proofing encasement forms, stair forms, bridge and deck forms. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

Attributes: Technical

CAR 150(3) Course ID: 001156
Concrete Formwork
Introduces the carpentry student to heavy and commercial concrete form construction methods. Covers information about properties of concrete as a building material, rigging, concrete wall form systems, above grade floor systems, vertical pier and column forms systems, on grade curb forms, horizontal beam forms, fire proofing encasement forms, stair forms, bridge and deck forms. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical
CAR 151(2) Course ID: 001157
Concrete Formwork-Lab
Introduces the carpentry student to heavy and commercial concrete form construction methods. Provides for the application of information about the properties of concrete, rigging, concrete wall forms, systems, above grade floor systems, vertical piers and column form systems, on grade curb forms, horizontal beam forms, fire proofing encasement forms, bridge and deck forms. Familiarizes student with OSHA construction standards on Concrete and Shoring, and Excavations. Co-requisite: CAR 150. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

CAR 190(3) Course ID: 001158
Light Frame Construction I
Emphasizes methods of floor, wall and stair framing, layout and construction. Provides discussion of industry safety standards and building codes. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

CAR 191(2) Course ID: 001159
Light Frame Const. I-Lab
Permits the student to practice floor, wall, and stair framing layout and construction techniques including the implementation of building codes and industry safety standards during lab or job-site practice. Co-requisite: CAR 190. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

CAR 196(3) Course ID: 001160
Light Frame Construction II
Covers basic roof design and combination roof designs used in the construction industry including the layout and installation practices that will be used to fabricate and install ceiling and roof framing systems. Provides discussion of job-site safety practice, scaffold and ladder safety that deals with roof construction, and building code requirements for roof construction and material estimating. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

CAR 197(2) Course ID: 001161
Light Frame Const. II-Lab
Covers basic roof design and construction methods used in the construction industry including layout, cut and install ceiling joists, rafters, and roof 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-requisite: CAR 196. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

CAR 198(1 - 6) Course ID: 005344
Instructor Consent Required
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 a maximum of six credit hours. Pre-requisite: Consent of Instructor. Lecture: 1-6 credits (15-90 contact hours), Laboratory: 1-6 credits (30-180 contact hours).
Components: Lecture Attributes: Technical

CAR 199(2 - 4) Course ID: 016145
Co-op in Construction I
Refines the techniques and skills taught in the previous carpentry courses. Provides a supervised on-the-job experience related to the student's educational and career training objectives. Pre-requisite: ISX 100 and/or permission of instructor. Co-Op: 2.0-4.0 credits (150-300 contact hours).
Components: Co-Op Attributes: Technical

CAR 200(3) Course ID: 001162
Light Frame Construction III
Present:s the concepts of interior and exterior finish materials and methods of installation. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules, Technical

CAR 201(2) Course ID: 001163
Light Frame Const. III-Lab
Provides an opportunity for students to perform basic applications of the concepts of interior and exterior finish methods for light frame construction. Co-requisite: CAR 200. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Course Also Offered in Modules, Technical

CAR 204(3) Course ID: 001164
Light Frame Construction IV
Covers the concepts that support the planning, construction and installation methods for kitchen and bath cabinetry and countertops including special finish trim techniques including finish stair construction and specialty millwork. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

CAR 210(2) Course ID: 001165
Light Frame Const. IV-Lab
Allows 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-requisite: CAR 240. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

CAR 270(3) Course ID: 007299
Green Building
Integrates principles of green building technologies and methods of sustainable construction. Emphasizes green materials used in the construction of buildings along with alternative and/or renewable energy systems. Introduces Leadership in Energy and Environmental Design (LEED) and the National Green Building Standard (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-requisite: 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

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: CAD 100 or ACH 185/195, Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture Attributes: Technical

CET 210(3) Course ID: 004705
Civil Engineering Graphics
This course provides the opportunity for the student to learn the basic theory necessary to generate and understand typical civil engineering working drawings. The student will develop graphic communication skills using current industry standard software. Pre-requisite: CAD 100 or ACH 185/195, Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture Attributes: Technical

CET 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: CE 211. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture
CHE 120(3) Course ID: 000237
Chemistry in Society
Introduces non-science majors to the main concepts and applications of chemistry in our society. Pre-requisite: (Completion of one developmental math course above Pre-Algebra with a grade of "C" or better) OR (College level math ACT score) OR equivalent. Lecture: 3 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: SN - Science, Course Also Offered in Modules

CHE 130(4) Course ID: 000236
Introductory General and Biological Chemistry
Presents the elementary principles of general, organic and biological chemistry. Pre-requisite: (Applied Mathematics OR Intermediate Algebra or higher) with a grade of "C" or better OR (College level math ACT score). Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory, SN - Science

CHE 140(3) Course ID: 000224
Introductory General Chemistry
Introduces topics in general chemistry, including properties of matter, stoichiometry, gases, atomic structure, bonding, acids and bases, oxidation and reduction, and nuclear chemistry. Intended for students interested in a one-semester course in general chemistry and recommended for students seeking careers in allied health fields. Pre-requisite: ([Intermediate Algebra] or [College Algebra or higher]) with a grade of "C" or better OR (College Level math ACT score). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

CHE 145(1) Course ID: 000239
Introductory General Chemistry Laboratory
Reinforces concepts covered in CHE 140 and introduces basic laboratory techniques, methods, and instrumentation through selected experiments dealing with chemical and physical properties, qualitative and quantitative analysis, and reaction count. 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 functional groups, their reactions, and the chemistry of proteins, nucleic acids, carbohydrates, and lipids. Pre-requisite: CHE 140 with a grade of C or better. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SL - Science Laboratory, SN - Science

CHE 155(1) Course ID: 006173
Introduction to Organic and Biological Chemistry Laboratory
Reinforces concepts covered in CHE 150 and introduces basic laboratory techniques, methods, and instrumentation through selected experiments dealing with the preparation, characterization, and purification of organic compounds and the reactions of biomolecules. Pre-requisite: CHE 140 and CHE 145. Pre-requisite or Co-requisite: CHE 150. Laboratory: 1 credit (45 contact hours, 45:1 ratio).
Components: Laboratory
Attributes: SL - Science Laboratory

CHE 160(2) Course ID: 000238
Preparation for General College Chemistry
Prepares students for success in CHE 170. Introduces vocabulary and nomenclature and provides students with practice in dimensional analysis, stoichiometry, and other critical skills. Offered on a Pass/Fail basis only. Pre-requisite: (Math ACT 19) OR (Intermediate Algebra with a grade of C or better). Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Other

CHE 170(4) Course ID: 000225
General College Chemistry I
Focuses on major chemical topics, including stoichiometry, atomic structure, properties of matter and the relationship between molecular structure and chemical behavior. Emphasizes solving of mathematical problems which illustrate the principles of chemistry. Designed for students in the sciences, engineering, and pre-professional programs. Pre-requisite: (ACT math score of 21) OR (Completion of one developmental math course above Pre-Algebra with a grade of "C" or better) OR (College level math ACT score). Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: SN - Science

CHE 175(1) Course ID: 000240
General College Chemistry Laboratory I
Reinforces concepts covered in CHE 170 and introduces basic laboratory techniques, methods, and instrumentation through selected experiments dealing with the preparation, characterization, and purification of organic compounds and the reactions of biomolecules. Pre-requisite: CHE 140 with a grade of "C" or better. Lecture: 1 credit (45 contact hours, 45:1 ratio).
Components: Laboratory
Attributes: SN - Science

CHE 180(4) Course ID: 000227
General College Chemistry II
Continues CHE 170. Focuses on major chemical topics, including acid-base chemistry, kinetics, thermodynamics, and chemical equilibrium. Emphasizes solving of mathematical problems which illustrate the principles of chemistry. Designed for students in the sciences, engineering, and pre-professional programs. Pre-requisite: (CHE 170 with a grade of "C" or better) and (College Algebra or higher with "C" or better). Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: SN - Science

CHE 185(1) Course ID: 000241
General College Chemistry Laboratory II
Reinforces concepts covered in CHE 180 and introduces basic laboratory techniques, methods, and instrumentation through selected experiments dealing with chemical and physical properties, qualitative and quantitative techniques. Pre-requisite: CHE 175 with a grade of C or better. Pre-requisite or Co-requisite: CHE 180. Laboratory: 1 credit (45 contact hours, 45:1 ratio).
Components: Laboratory
Attributes: SL - Science Laboratory

CHE 190(3) Course ID: 006802
Industrial Chemistry
Introduces topics in basic chemical engineering and chemical processing. Includes organic chemistry, synthetic polymers, energy sources, diffusion, fluid flow, heat transfer, recycling, air and water pollution. Intended for students in the chemical engineering technology program. Pre-requisite: (CHE 140 and CHE 145) or consent of instructor. Co-requisite: CHE 195. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other

CHE 195(1) Course ID: 006803
Industrial Chemistry Laboratory
Reinforces concepts covered in CHE 190. Includes basic laboratory techniques, methods, and selected experiments dealing with chemical engineering technology. Pre-requisite: (CHE 140 and CHE 145) or consent of instructor. Co-requisite: CHE 190. Lab: 1.0 credit hour (45 contact hours).
Components: Laboratory
Attributes: Other

CHE 253(3) Course ID: 006580
Materials Science
The properties of materials as reflected by the atomic and electronic structure of their constituent elements. Mechanical, thermal, electrical, magnetic, optical, and chemical characteristics of metallic, ceramic, polymeric, and composite solids. Pre-requisites: CHE 180. Lecture: 3.0 (45 contact hours).
Components: Lecture
Attributes: University Course (University of Louisville)

CHE 270(3) Course ID: 000239
Organic Chemistry I
Presents the fundamental principles of organic chemistry. Emphasizes the structures and properties of carbon-containing compounds. Introduces organic reactions, their mechanisms, and applications to synthesis. Pre-requisite: CHE 180 with a grade of C or better. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

CHE 275(2) Course ID: 000231
Organic Chemistry Laboratory I
Introduces common techniques used in the laboratory for purification, separation, identification, and reactions of organic compounds. Pre-requisite: CHE 185 with a grade of C or better. Pre-requisite or Co-requisite: CHE 270. Laboratory: 2 credit (60 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

CHE 290(3) Course ID: 000232
Organic Chemistry II
Presents further applications of the principles of organic chemistry. Continues the study of organic reactions, their mechanisms, synthesis and modern spectroscopic techniques. Pre-requisite: CHE 270 with a grade of C or better. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science
CHE 285(2) Course ID: 000233
Organic Chemistry Laboratory II
Exploring the synthesis, purification, and characterization of organic compounds in the laboratory. Pre-requisite: CHE 275 with a grade of C or better. Pre-requisite or Co-requisite: CHE 280. Lab: 2 credits (60 contact hours).

Components: Laboratory
Attributes: SL - Science Laboratory

CHE 290(1 - 3) Course ID: 006175
Instructor Consent Required
Selected Topics in Chemistry: (Topic)
Topics may vary from semester to semester at the discretion of the instructor; course may be repeated with different topics to a maximum of six credit hours. Pre-requisite: Consent of instructor. Lecture: 1-3 credits (15-45 contact hours).

Components: Lecture

CHE 295(1 - 3) Course ID: 006176
Instructor Consent Required
Selected Topics in Chemistry Laboratory: (Topic)
Explores experiments pertinent to a topic in chemistry chosen by the instructor. Topics may vary from semester to semester at the discretion of the instructor; course may be repeated with different topics to a maximum of six credit hours. Pre-requisite: Consent of Instructor. Laboratory: 1-3 credits (30-90 contact hours).

Components: Laboratory

CHE 1201(0.75) Course ID: 006126
Fundamentals
Introduces non-science majors to the fundamentals and applications of chemistry in our society. Pre-requisite: Completion of one developmental math course above Pre-Algebra with a grade of “C” or better OR (College level math ACT score) OR equivalent. Lecture: 0.75 credit (11.25 contact hours).

Components: Lecture

CHE 1202(0.75) Course ID: 006127
Intro to Organic & Biochem
Introduces non-science majors to the fundamentals and applications of organic and biochemistry in society. Pre-requisite: CHE 1201. Lecture: 0.75 credit (11.25 contact hours).

Components: Lecture

CHE 1203(0.75) Course ID: 006128
Selected Topics in Chemistry and Culture
Introduces non-science majors to selected topics in chemistry and culture. Pre-requisite: CHE 1201 or 1202. Lecture: 0.75 credit (11.25 contact hours).

Components: Lecture

CIS Computer Information Systems
CIS 2303(3) Course ID: 000264
Advanced Microcomputer Applications
Students use advanced functions of current software packages (word processing, spreadsheets, database management, presentation developers). Topics include working with complex documents, spreadsheets, and databases. Additionally, students will create sophisticated presentations and prepare data for distribution on the Web. Lecture: 3 hours. Pre-requisite: CIS 130 or consent of instructor.

Components: Lecture
Course Equivalents: CIT 234
Attributes: Course Also Offered in Modules, Technical

CIS 2301(0.9) Course ID: 005848
Word Processing Level 3
Uses advanced functions of word processing. Includes working with complex documents and creating and preparing data for distribution on the Web. Pre-requisite: (CIS 130 or CIS 1301) or consent of instructor. Lecture: 0.9 credit (13.5 contact hours).

Components: Lecture

CIS 2302(0.9) Course ID: 005849
Spreadsheets Level 3
Uses advanced functions of spreadsheets. Includes working with complex spreadsheets and the creation and preparation of data for distribution on the Web. Pre-requisite: (CIS 130 or CIS 1302) or consent of instructor. Lecture: 0.9 credits (13.5 contact hours).

Components: Lecture

CIS 2303(0.9) Course ID: 005850
Databases Level 3
Uses advanced functions of databases. Includes working with complex databases and the creation and preparation of data for distribution on the Web. Pre-requisite: (CIS 130 or CIS 1303) or consent of instructor. Lecture: 0.9 credit (13.5 contact hours).

Components: Lecture

CIS 2304(0.3) Course ID: 005851
Presentation Software Level 3
Uses advanced functions of presentation software. Includes working with complex presentations and the creation and preparation of data for distribution on the Web. Pre-requisite: (CIS 130 or CIS 1304) or consent of instructor. Lecture: 0.3 credit (4.5 contact hours).

Components: Lecture

CIT Computer Information Technology
CIT 90(3) Course ID: 007435
Fundamental Computer Skills
Introduces students to computer fundamentals necessary for college success. Focuses on computer terminology, rudimentary skills in touch typing, creating simple documents, slide shows and presentations, using a course management system, using a search engine to find information on the Internet, initializing and using student email and online student services. This course does not fulfill the Digital Literacy requirement. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

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, Technical

CIT 111(4) Course ID: 006189
Computer Hardware and Software
Presents a practical view of computer hardware and client operating systems. Covers computer hardware components; troubleshooting, repair, and maintenance; operating system interfaces and management tools; networking components; computer security; and operational procedures. Pre-requisite: (CIT 105 AND MAT 065) OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 120(3) Course ID: 004712
Computational Thinking
Promotes understanding of computer programming and logic by teaching students to think like a computer. Covers skills needed to develop and design language-independent solutions to solve computer-related problems. Covers development and design basics including use of variables, control and data structures, and principles of command-line and object-oriented languages. Pre-requisite: (CIT 105 OR CST 105 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 124(3) Course ID: 016259
Introduction to Game Development
Introduces non-science majors to selected topics in chemistry and culture.

Components: Lecture

CIT 125(3) Course ID: 006901
Introduction to GIS
Introduces non-science majors to selected topics in chemistry and culture.

Components: Lecture

CIT 130(3) Course ID: 004713
Productivity Software
Introduces non-science majors to selected topics in chemistry and culture.

Components: Lecture

CIT 140(3) Course ID: 004714
JavaScript I
Presents 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: (CIT 105 AND CIT 150) 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
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 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. 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 Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 147(3)  Course ID: 006903
Programming I: Language
Introduces students to fundamental programming concepts using an industry-specific or emerging programming language. Includes 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
Attributes: Technical

CIT 150(3)  Course ID: 004718
Internet Technologies
Provides students with a study of traditional and emerging Internet technologies. Covers topics including Internet fundamentals, Internet applications, Internet delivery systems, and Internet client/server computing. Provides a hands-on experience and some rudimentary programming in an Internet environment. Pre-requisite: (CIT 105 AND CIT 120) OR Consent of Instructor. 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: Technical

CIT 152(3)  Course ID: 007391
Social Media Tools and Technology
Introduces students to web-based social media tools. Explores and researches online applications, social networks, and web branding. Develops skills to leverage social media applications and niche markets to increase business presence. Pre-requisite: CIT 150 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Laboratory
Attributes: Technical

CIT 155(3)  Course ID: 0086904
Web Page Development
Introduces web page design through the use of HTML and CSS. Uses text and/or web editors to create web documents with various formats and page layouts, multimedia, tables and forms. Emphasizes W3C web design and accessibility standards. Pre-requisite: CIT 105 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 157(3)  Course ID: 006905
Web Site Design and Production
Introduces web site production processes with particular emphasis on design involving layout, navigation, interactivity, and using web production software. Pre-requisite: CIT 105 or Consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

CIT 160(4)  Course ID: 004719
Intro to Networking Concepts
Introduces technical level concepts of non-vendor specific networking including technologies, media, topologies, devices, management tools, and security. Provides the basics of how to manage, maintain, troubleshoot, install, operate, and configure basic network infrastructure. Pre-requisite: MAT 65 OR Consent of Instructor. Pre-requisite or Co-requisite: CIT 111 OR Consent of Instructor Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 161(4)  Course ID: 006906
Introduction to Networks
Introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. Introduces the principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations. Helps students to be able to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes. Pre-requisite: MT 065 OR Consent of Instructor. Pre-requisite or Co-requisite: CIT 111 OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

CIT 167(4)  Course ID: 015644
Routing & Switching Essentials
Covers the architecture, components, and operations of routers and switches in a small network. Helps students learn how to configure a router and a switch for basic functionality. Helps students configure and troubleshoot routers and switches and resolve common issues with RIPv1, RIPv2, single-area and multi-area OSPF, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks. Pre-requisite: CIT 161 OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

CIT 170(3)  Course ID: 004720
Database Design Fundamentals
Provides an overview of database and database management system concepts, internal design models, normalization, network data models, development tools, and applications. Pre-requisite: (CIT 105 OR OST 105 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 105 AND CIT 160 OR CIT 161) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 182(3)  Course ID: 006911
Perimeter Defense
Presents information and skills required to secure computers and networks from attacks with an emphasis on configuration of firewalls and intrusion-detection systems. Pre-requisite: CIT 180 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: 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 Consent of instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical
**CIT 203(3)**  
**Course ID: 007296**  
### Introduction to Virtualization  
Provides an introduction to virtualization technologies including the architecture, its applications, and best practices. Utilizes VMware ESXi servers for creation and management of virtual machines, virtual switches and storage architectures including distributed resource scheduling, high availability, and fault tolerance. Satisfies the VMware Certified Professional (VCP) course requirement. Pre-requisite: (CIT 167 AND CIT 214 OR CIT 217) OR Consent of instructor. Lecture/Lab: 3.0 credits (60 contact hours).

**Components:**  
- **Lecture**  
- **Technical**

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**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**  
- **Technical**

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**CIT 208A(4)**  
**Course ID: 015645**  
### Scaling Networks  
Covers the architecture, components, and operations of routers and switches in a larger and more complex network. Helps students learn how to configure routers and switches for advanced functionality. Helps students to configure and troubleshoot routers and switches and resolve common issues with OSPF, EIGRP, STP, and VTP in both IPv4 and IPv6 networks. Helps students to develop the knowledge and skills needed to implement DHCP and DNS operations in a network. Pre-requisite: CIT 167 or Consent of instructor. Lecture: 4.0 credits (60 contact hours).

**Components:**  
- **Lecture**  
- **Technical**

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**CIT 212(4)**  
**Course ID: 004723**  
### Connecting Networks  
Covers WAN technologies and network services required by converged applications in a complex network. Enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Helps students learn how to configure and troubleshoot network devices and resolve common issues with network link protocols. Helps students to develop the knowledge and skills needed to implement IPsec and virtual private network (VPN) operations in a complex network. Pre-requisite: CIT 209 or Consent of instructor. Lecture: 4.0 credits (60 contact hours).

**Components:**  
- **Lecture**

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**CIT 213(3)**  
**Course ID: 006192**  
### Microsoft Client Configuration  
Covers installation and configuration of the current Microsoft Windows client operating system. Helps prepare students for exams in the Microsoft certification exam series. Pre-requisite: (CIT 111 AND CIT 160 OR CIT 161) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

**Components:**  
- **Lecture**  
- **Technical**

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**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 prepping 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**  
- **Technical**

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**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 infrastructure in an enterprise environment (second in a series of three courses). Pre-requisite: CIT 214. Lecture: 3.0 credits (45 contact hours).

**Components:**  
- **Lecture**  
- **Technical**

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**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 Consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours).

**Components:**  
- **Lecture**  
- **Technical**

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**CIT 218(3)**  
**Course ID: 004725**  
### UNIX/Linux Net Infrastructure  
Establishing secure networking environments is a key strength of the UNIX/Linux operating system. Explores naming, messaging, file transfer, remote login, routing, address assignment, distributed file systems, web, and email services in a standard UNIX/Linux server environment. Pre-requisite: CIT 217 or Consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours).

**Components:**  
- **Lecture**  
- **Technical**

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**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 CIT 162) OR Consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours).

**Components:**  
- **Lecture**  
- **Technical**

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**CIT 221(3)**  
**Course ID: 006916**  
### Computer Graphics  
Introduces basic computer graphics with an emphasis on graphics for game design. Teaches students in practical aspects of graphics such as color, ray tracing, rasterization, shading, mapping, light, and shadow. Pre-requisite: CIT 105 OR IMID 100 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

**Components:**  
- **Lecture**  
- **Technical**

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**CIT 222(3)**  
**Course ID: 016280**  
### 3D Modeling for Video Games  
Teaches students in the use of industry-standard 3D modeling software specific to the video-game industry. Emphasizes both architectural and character modeling. Familiarizes the student with key 3D modeling concepts and methods, workflow, and the creation and preparation of 3D assets for use specifically in a video-game application. Allows students to create a variety of 3D assets. Pre-requisite: CIT/IMID 221 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

**Components:**  
- **Lecture**

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**CIT 223(3)**  
**Course ID: 006917**  
### Computer Animation  
Explores 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/IMID 222 AND CIT/IMID 272 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

**Components:**  
- **Lecture**

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**CIT 225(3)**  
**Course ID: 006918**  
### GIS Software Tools  
Explores Geographical Information System extensions. Introduces and identifies popular advanced extensions used for network analysis, spatial analysis, and 3D analysis. Pre-requisite: CIT 125 AND CIT 1170 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

**Components:**  
- **Lecture**  
- **Technical**

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**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**  
- **Technical**

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**CIT 231(3)**  
**Course ID: 016140**  
### Management Information Systems  
Introduces the sociotechnological aspects of information systems and their implications for organizations, as well as current topics and technologies associated with information systems. Emphasizes the Internet and e-commerce. Introduces other technologies both current and future. Ends with coverage of the combined application of sociotechnological principles and various technologies. Pre-requisite: Digital literacy of instructor permission. Lecture: 3.0 credits (Lab 45).

**Components:**  
- **Lecture**  
- **Technical**

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**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 105 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

**Components:**  
- **Lecture**  
- **Technical**

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**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**  
- **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 presentation 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 241(3)  
**Course ID:** 006920  
**PHP II**  
Explores the dynamic features of PHP and how it can interact to form spontaneous websites and dynamic feature rich content. Pre-requisite: CIT 141 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
**Components:** Lecture  
**Attributes:** Technical

CIT 242(3)  
**Course ID:** 006921  
**C++ II**  
Introduces students to advanced programming concepts using C++. Includes advanced data structures, concurrency, innovative algorithms, advanced file processing, and topics that are unique to C++. Pre-requisite: CIT 142 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
**Components:** Lecture  
**Attributes:** Technical

CIT 243(3)  
**Course ID:** 006248  
**C# II**  
Provides students with an extensive overview of designing and developing advanced object-oriented applications using the C# programming language. Includes advanced graphical user interfaces, event-driven programming, advanced data types and structures, concurrency, file and database processing, mobile computing, and other advanced topics. Pre-requisite: CIT 143. 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, database processing, and client/server programming. Pre-requisite: CIT 144 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
**Components:** Lecture  
**Attributes:** Technical

CIT 246(3)  
**Course ID:** 006922  
**2-D Game Development: Language**  
Provides students with an introduction to two-dimensional game creation. Includes the creation of a two-dimensional game using an industry-specific or emerging programming language. This course may be repeated with a different language. Pre-requisite: Level I Programming Language (using the same programming language) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
**Components:** Lecture  
**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**  
Develops applications using Visual Basic with an emphasis on application design, record-handling routines, and database engine operations, including working with objects from Microsoft Office, creating ActiveX documents, and building Internet applications with these documents. Pre-requisite: CIT 148 or consent of instructor. Lecture: 3 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)  
**Social Media II**  
Provides students with skills, knowledge, and experience to respond to the challenges of a rapidly changing world through the implementation of social media strategies. Examines social media plans for building social profiles, selecting appropriate audiences, and effective communication through identified social media tools. Covers additional trends, case studies, and research on the creation of utilization of web and social media technologies and practices. Pre-requisite: CIT 151 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
**Components:** Lecture  
**Attributes:** 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-server and server-side Web scripting. Includes the creation of a database-driven Web site. Pre-requisite: (CIT 150 AND CIT 170 AND Approved Level I Programming Language) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
**Components:** Lecture  
**Attributes:** Technical

CIT 255(3)  
**Course ID:** 005104  
**Web Server Administration**  
Provides an in-depth study of the functions required to run a safe and stable web server. Considers multiple web services on multiple platforms from installation to configuration, availability, and security. Requires hands-on experiences with web services. Pre-requisite: (CIT150 AND CIT214 OR CIT218) AND 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: (CIT 140 AND CIT 171 AND CIT 253) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
**Components:** Lecture  
**Attributes:** Technical

CIT 258(3)  
**Course ID:** 005211  
**Internet Technologies Seminar**  
Incorporates research, study, and discussion of current and emerging topics, issues, and trends in Internet technologies. Requires participation in class presentations, as well as individual and/or group projects involving Internet technologies. Pre-requisite: CIT 253 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
**Components:** Lecture  
**Attributes:** Technical

CIT 260(3)  
**Course ID:** 004730  
**Network Hardware Installation and Troubleshooting**  
Provides students with the knowledge and skills necessary to design, install, configure, and troubleshoot cabling systems and equipment used to connect a local area network. Pre-requisite: CIT 160 or consent of instructor. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (30 contact hours).  
**Components:** Laboratory, Lecture

CIT 262(3)  
**Course ID:** 005210  
**MS Network Infrastructure**  
Provides students with the knowledge and skills necessary to install, configure, manage, and support a network infrastructure using a Microsoft Windows server operating system. Assists in preparing students for exams in the Microsoft certification exam series. Pre-requisite: (CIT 213 AND CIT 219) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
**Components:** Lecture  
**Attributes:** Technical

CIT 263(1 - 6)  
**Course ID:** 008246  
**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 265(3)  
**Course ID:** 006195  
**MS Application Servers**  
Focuses on the deployment, configuration and management of Microsoft servers that support users and applications, especially web servers, Remote Desktop servers SharePoint servers and file servers. Pre-requisite: CIT 213 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
**Components:** Lecture  
**Attributes:** Technical

CIT 266(3)  
**Course ID:** 006196  
**MS Enterprise Administration**  
Focuses on Windows server administration at the enterprise level. Covers planning networks and services, designing core identity and access management components, implementing a public key infrastructure, planning for restructuring forests and domains, and designing a virtualization strategy. Pre-requisite: (CIT 261 AND (CIT 214 OR CIT 262)) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
**Components:** Lecture  
**Attributes:** Technical

CIT 269(3)  
**Course ID:** 004731  
**Internet Protocols**  
Provides students with the knowledge and skills to install, configure, manage and troubleshoot internetworks using TCP/IP and its associated protocols. Pre-requisite: (CIT 111 and CIT 160) OR consent of instructor. Lecture: 3 credits (45 contact hours).  
**Components:** Lecture  
**Course Equivalents:** CIT 219

CIT 271(3)  
**Course ID:** 004732  
**SQL II**  
Provides an extensive overview of SQL using programming to create, query, manage and maintain databases. Uses advanced features of SQL, including stored procedures and triggers, to design and interface with a database and other applications. Pre-requisite: CIT 171 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
**Components:** Lecture  
**Attributes:** Technical
CIT 272(3)  
Course ID: 016261  
Game Design Theory  
Introduces students to the experience-oriented standards and techniques of gaming on a digital platform. Includes hands-on conceptualization and writing of a game created by the student. Emphasizes creativity, player experiences and motivations, styles of play, types of games, character creation, world creation, and story-driven narrative within a video game. Offers students the opportunity to complete an industry-style Game Design Document. Pre-requisite: CIT/IMD 124 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Course Equivalents: IMD 272  
Attributes: Technical

CIT 273(3)  
Course ID: 016262  
Game Production  
Provides students with the opportunity to produce a fully playable 3D video game using assets and materials created in previous courses. Offers students the opportunity to employ an industry-standard game engine to meld 3D content, audio, narrative, character, and environment into a professional and enjoyable video game experience. Pre-requisite: CIT/IMD 222 AND CIT/IMD 272 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Course Equivalents: IMD 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 276(3)  
Course ID: 006926  
3-D Game Development: Language  
Provides students with an introduction to three-dimensional game creation. Includes the creation of a three-dimensional game development using an industry-specific or emerging programming language. 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 246 (using the same programming language) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

CIT 277(3)  
Course ID: 006927  
Programming III: Language  
Introduces students to complex programming concepts using an industry-specific or emerging programming language. Includes complex features of the language not previously covered in Programming I and Programming II. Comprehensive projects will be developed that model work performed in a corporate environment. Pre-requisite: CIT 247 (for the same programming language) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

CIT 278(3)  
Course ID: 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(4)  
Course ID: 004736  
Routing  
Provides students with the skills necessary to understand and apply concepts related to networking hardware. Covers advanced TCP/IP concepts such as IP addressing and subnetting, beginning router configuration, routed and routing protocols. Completes one of a series of four courses that prepares students for the Cisco Certified Network Associate (CCNA) certification exam. Pre-requisite: CIT 160 or consent of Instructor. Lecture: 4 credits (60 contact hours).  
Components: Lecture  
Course ID: 004737  
Switching  
Provides students with the skills necessary to understand and apply advanced networking concepts. Covers local area network (LAN) switching, virtual local area networks (VLANs), advanced network design concepts, advanced router configuration, and advanced network management projects. Completes one of four courses that prepares students for the Cisco Certified Network Associate (CCNA) certification exam. Pre-requisite: CIT 160 or consent of Instructor. Lecture: 4 credits (60 contact hours).  
Components: Lecture  
Course ID: 004678  
Wide Area Network Design and Management  
Provides students with the skills necessary to understand and apply advanced principles and applications in deploying networking hardware. Covers WAN design, WAN connectivity protocols such as PPP, ISDN, and Frame Relay, as well as advanced network management projects. Completes the final of four courses that prepares students for the Cisco Certified Network Associate (CCNA) certification exam. Pre-requisite: CIT 281 and CIT 282 or consent of instructor. Lecture: 4 credits (60 contact hours).  
Components: Lecture  
Attributes: Technical

CIT 283(3)  
Course ID: 002692  
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 285(3)  
Course ID: 006930  
MS Windows OS Security  
Provides students the knowledge and skills necessary to secure the Windows operating system. Pre-requisite: CIT 180 AND CIT 214 OR CIT 262 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

CIT 286(3)  
Course ID: 006931  
UNIX/Linux OS Security  
Provides students the knowledge and skills necessary to secure the UNIX/Linux operating system and to utilize the UNIX/Linux operating system for security functions. Emphasizes use of freely available security tools. Pre-requisite: (CIT 180 AND CIT 217) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

CIT 287(3)  
Course ID: 006932  
Cisco OS Security  
Provides students with comprehensive understanding of network security concepts. Includes installation, troubleshooting and monitoring of network devices to maintain integrity, confidentiality and availability of data and devices. Covers implementation of hosts and perimeter edge device firewalls and defenses in-depth prevention systems. Pre-requisite: (CIT 165 OR CIT 212) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

CIT 288(3)  
Course ID: 006197  
Network Security  
Provides students with the knowledge and skills necessary to understand and defend against a variety of computer and network attacks. Focuses on both the offensive techniques used to launch attacks and the defensive techniques required to defend computers and networks. Pre-requisite: (CIT 180 AND Level 1 Network Technologies Specialization Sequence) OR Consent of Instructor. Lecture: 3.0 credits (45 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  
CIT Capstone  
Apply acquired techniques, knowledge, and skills to successfully analyze, design, and plan a CIT project. Develop key project management and system analysis deliverables in a portfolio. Pre-requisite: 36 credit hours of CIT Courses OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

CIT 292(3)  
Course ID: 004742  
Special Topics in CIT: Topic  
Explores concepts and/or skills from special areas of interest in Computer & Information Technologies. Topics vary from semester to semester. May be repeated up to two times with different topics to a maximum of 6 credit hours. Pre-requisite: Consent of Instructor. Lecture: 1.0 - 3.0 credits (15 - 45 contact hours).  
Components: Lecture  
Attributes: Technical

CIT 295(1 - 3)  
Course ID: 004741  
Independent Problems 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 299(1 - 3)  
Course ID: 004742  
Special Topics in CIT: Topic  
Explores concepts and/or skills from special areas of interest in computer and information systems. May be repeated with different topics to a maximum of 6 credit hours. Pre-requisite: Consent of Instructor. Lecture: 1.0 - 3.0 credits (15 - 45 contact hours).  
Components: Lecture  
Attributes: Technical

CIT 1051(0.5)  
Course ID: 006972  
Computer Basics  
Provides an introduction to the computer and the convergence of technology including computer hardware and software, the social web, green computing, security and computer ethics. Pre-requisite: RDG 20 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).  
Components: Lecture  
Attributes: Technical

CIT 1052(0.6)  
Course ID: 006973  
System and Utility Software  
Introduces file management and presents basic use of systems and utility software. Pre-requisite: RDG 20 OR Consent of Instructor. Lecture: 0.6 credits (9.0 contact hours).  
Components: Lecture  
Attributes: Technical

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  
Attributes: Technical

CIT 1054(0.5)  
Course ID: 006975  
Globalization and the Cloud  
Introduces globalization and impact and use of cloud computing. Pre-requisite: RDG 20 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).  
Components: Lecture
CIT 1055(0.6) Course ID: 006976
Software Basics
Presents basic use of application and programming software. Pre-requisite: RDG 20 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours). Components: Lecture

CIT 1111(0.8) Course ID: 007091
Computer Hardware Essentials
Provides a practical view of hardware components. Pre-requisite: (CIT 105 AND MAT 065) OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours). Components: Lecture

CIT 1112(0.8) Course ID: 007092
Computer Maintenance
Provides a practical view of troubleshooting, repair, and maintenance. Pre-requisite: CIT 1111 or Consent of Instructor. Lecture: 0.8 credits (12 contact hours). Components: Lecture

CIT 1113(1) Course ID: 007093
Operating Systems and Tools
Provides a practical view of operating system interfaces and management tools. Pre-requisite: CIT 1112 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Components: Lecture

CIT 1114(0.8) Course ID: 007094
Networking and Security
Provides a practical view of networking components and computer security. Pre-requisite: CIT 1113 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours). Components: Lecture

CIT 1115(0.6) Course ID: 007095
Operational Procedures
Provides a practical view of operational procedures. Pre-requisite: CIT 1114 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours). Components: Lecture

CIT 1201(1) Course ID: 006977
Basic Program Logic
Introduces logic to computer programming and logic including program flow, data types and variables, and design tools. Pre-requisite: Digital Literacy AND MAT 085 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Components: Lecture

CIT 1202(1) Course ID: 006978
Control and Data Structures
Develops and design basics to appropriately select control and data structures. Pre-requisite: CIT 1201 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Components: Lecture

CIT 1203(1) Course ID: 006979
Computer Program Application
Develops and design language-independent solutions, or computational thinking, to solve computer-related problems. Pre-requisite: CIT 1202 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Components: Lecture

CIT 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 IMD 100 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours). Components: Lecture

CIT 1302(0.8) Course ID: 006981
Spreadsheet Applications
Utilizes spreadsheet application software to solve common business problems. Pre-requisite: Computer Literacy OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours). Components: Lecture

CIT 1303(0.8) Course ID: 006982
Database Applications
Utilizes database application software to solve common business problems. Pre-requisite: Computer Literacy OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours). Components: Lecture

CIT 1304(0.6) Course ID: 006983
Presentation Software Apps
Utilizes current presentation software application software to solve common business problems. Pre-requisite: Computer Literacy OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours). Components: Lecture

CIT 1401(0.6) Course ID: 006984
JavaScript Basics
Provides an overview of the JavaScript language. Introduces variables, operators, and data types. Pre-requisite: CIT 120 AND (CIT 150 or CIT 155) OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours). Components: Lecture

CIT 1402(0.8) Course ID: 006985
Input/Output Processes
Introduces input and output statements using JavaScript. Identifies errors and code efficiency. Pre-requisite: CIT 1401 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours). Components: Lecture

CIT 1403(0.8) Course ID: 006986
Control Structures/Patters
Introduces control structures and application scripts using JavaScript. Identifies errors and code efficiency. Pre-requisite: CIT 1402 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours). Components: Lecture

CIT 1404(0.8) Course ID: 006987
JavaScript Objects/Scripts
Introduces objects and application scripts using JavaScript. Identifies errors and code efficiency. Pre-requisite: CIT 1403 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours). Components: Lecture

CIT 1421(0.6) Course ID: 006988
C++ Overview
Introduces fundamental programming concepts using the C++ programming language. Pre-requisite: CIT 120 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours). Components: Lecture

CIT 1422(0.8) Course ID: 006989
C++ Control Structures
Introduces control structures for the C++ language. Identifies errors and code efficiency. Pre-requisite: CIT 1421 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours). Components: Lecture

CIT 1423(0.8) Course ID: 006990
C++ Functions
Introduces functions for the C++ language. Identifies errors and code efficiency. Pre-requisite: CIT 1422 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours). Components: Lecture

CIT 1424(0.8) Course ID: 006991
C++ Arrays and Pointers
Introduces arrays and pointers for the C++ language. Identifies errors and code efficiency. Pre-requisite: CIT 1423 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours). Components: Lecture

CIT 1481(0.6) Course ID: 006992
Visual Basic Overview
Introduces fundamental programming concepts using the Visual Basic programming language. Pre-requisite: CIT 120 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours). Components: Lecture

CIT 1492(0.8) Course ID: 006993
VB Control Structures
Introduces control structures for the VB language. Identifies error-handling and code evaluation. Pre-requisite: CIS 1491 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours). Components: Lecture

CIT 1493(0.8) Course ID: 006994
VB Arrays
Introduces arrays and object oriented programming for the VB language. Identifies error-handling and code evaluation. Pre-requisite: CIS 1482 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours). Components: Lecture

CIT 1494(0.8) Course ID: 006995
VB File Processing
Presents modular programming and file processing for the VB language. Identifies error-handling and code evaluation. Pre-requisite: CIS 1483 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours). Components: Lecture

CIT 1501(0.6) Course ID: 006996
Internet Technologies
Presents traditional and emerging Internet technologies including Internet fundamentals and governing organizations for the web. Pre-requisite: CIT 105 AND CIT 120 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours). Components: Lecture

CIT 1502(0.6) Course ID: 006997
Internet Tools
Provides an overview of Internet Technologies and protocols across the Internet. Pre-requisite: CIT 1501 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours). Components: Lecture

CIT 1503(0.8) Course ID: 006998
eCommerce
Presents practical eCommerce strategies for publishing on the web including core connectivity, naming conventions, and web registration. Pre-requisite: CIT 1502 or Consent of Instructor. Lecture: 0.8 credits (12 contact hours). Components: Lecture

CIT 1504(1) Course ID: 006999
Web Programming
Creates basic web content using HTML and client/server applications to publish to the web. Pre-requisite: CIT 1503 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours). Components: Lecture

CIT 1601(1) Course ID: 007000
Networking Basics
Introduces non-vendor specific technical level networking concepts. Pre-requisite: MAT 65 OR Consent of Instructor. Pre-requisite OR Co-requisite: CIT 111 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Components: Lecture

CIT 1602(1) Course ID: 007001
Network Media and Technologies
Introduces non-vendor specific networking concepts such as the media, technologies, topologies, and devices. Pre-requisite: CIT 1601 OR Consent of Instructor. Lecture: 1.0 credits (15 contact hours). Components: Lecture

CIT 1603(1) Course ID: 007002
Network Management
Presents the basics of how to manage, maintain, troubleshoot, install, operate, and configure basic network infrastructure. Pre-requisite: CIT 1602 OR Consent of Instructor. Lecture: 1.0 credits (15 contact hours). Components: Lecture

CIT 1604(1) Course ID: 007003
Network Tools and Security
Introduces tools used to troubleshoot and secure networks. Pre-requisite: CIT 1603 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Components: Lecture
<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Credit Hours</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>016318</td>
<td>CIT 1611(0.3) Network Basics</td>
<td>0.3 credits</td>
<td>Introduces students to basic concepts and components of a data network and the Internet, architecture, structure, functions, components, and models. Pre-requisite: MAT 085 OR Consent of Instructor. Pre-requisite OR Co-requisite: CIT 111 OR Consent of Instructor. Lecture: 0.3 credits (4.5 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>016319</td>
<td>CIT 1612(0.4) Protocol Models</td>
<td>0.4 credits</td>
<td>Describes the principles of simple LAN development including the OSI and TCP/IP models, the encapsulation process, and data flow between two hosts across a network. Pre-requisite: CIT 1611 OR Consent of Instructor. Lecture: 0.4 credits (6 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>016320</td>
<td>CIT 1613(0.6) OSI Layer Operations</td>
<td>0.6 credits</td>
<td>Describes the functions and responsibilities of the various OSI model layers pertaining to simple LANs. Pre-requisite: CIT 1612 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>016321</td>
<td>CIT 1614(0.7) Basic IP Addressing</td>
<td>0.7 credits</td>
<td>Describes the basic concepts of IP addressing and its use in simple LAN networks. Pre-requisite: CIT 1611 OR Consent of Instructor. Lecture: 0.7 credits (10.5 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>016322</td>
<td>CIT 1615(1) IP Subnetting</td>
<td>1 credit</td>
<td>Introduces the design and implementation of IP addressing schemes for simple LAN networks using subnets. Pre-requisite: CIT 1611 OR Consent of Instructor. Lecture: 1 credit (15 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>016323</td>
<td>CIT 1616(0.5) Ethernet Networks</td>
<td>0.5 credits</td>
<td>Introduces the fundamental Ethernet concepts including operation and design of an Ethernet network. Pre-requisite: CIT 1613 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>016325</td>
<td>CIT 1617(0.5) Configuring Switches &amp; Routers</td>
<td>0.5 credits</td>
<td>Introduces basic configuration of routers and switches using the command line interface (CLI) including utilities to test and monitor the operation of a simple LAN network. Pre-requisite: CIT 1616 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>007004</td>
<td>CIT 1621(1) Hardware and Operating Systems</td>
<td>0.3 credits</td>
<td>Provides concepts about PC hardware and operating systems. Pre-requisite: MAT 085 OR Consent of Instructor. Pre-requisite OR Co-requisite: CIT 111 OR Consent of instructor. Lecture: 1.0 credit (15 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>007005</td>
<td>CIT 1622(1) Network Connections &amp; Resources</td>
<td>0.5 credits</td>
<td>Presents concepts and skills for connecting computer hardware to a network. Provides overview of network addressing, services, and security. Pre-requisite: CIT 1621 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>007006</td>
<td>CIT 1623(1) Network Troubleshooting</td>
<td>0.5 credits</td>
<td>Provides concepts and techniques for troubleshooting errors and issues on a network. Pre-requisite: CIT 1622 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>007007</td>
<td>CIT 1624(1) Network Planning</td>
<td>0.7 credits</td>
<td>Provides skills for planning and implementing a small network. Pre-requisite: CIT 1623 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>007008</td>
<td>CIT 1631(1) Internet Communications</td>
<td>0.8 credits</td>
<td>Provides a basic overview of the Internet, network models, and IPv4/IPv6 troubleshooting. Develops skills for computer technicians, network and help desk technicians. Pre-requisite: CIT 162 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>007009</td>
<td>CIT 1632(1) Planning/Upgrading Networks</td>
<td>0.8 credits</td>
<td>Provides a basic overview of networks including planning and upgrades. Develops skills required for computer technicians, network and help desk technicians. Pre-requisite: CIT 1631 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>007010</td>
<td>CIT 1633(1) Configuring Networks</td>
<td>0.9 credits</td>
<td>Provides a basic overview of routing, remote access, and covers servers that provide e-mail services. Develops skills required for computer technicians, network and help desk technicians. Pre-requisite: CIT 1632 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>016326</td>
<td>CIT 1671(0.3) Intro to Switching</td>
<td>0.3 credits</td>
<td>Covers basic concepts and operation of switched networks, including Ethernet switching. Pre-requisite: CIT 1613 OR Consent of Instructor. Lecture: 0.3 credits (4.5 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>016327</td>
<td>CIT 1672(0.5) Enhanced Switching</td>
<td>0.5 credits</td>
<td>Describes virtual LAN (VLAN) basics and implementation. Pre-requisite: CIT 1671 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>016328</td>
<td>CIT 1673(0.6) Routing Processes</td>
<td>0.6 credits</td>
<td>Covers operation of routers in a small network including static and default routing. Examines the role of the router and the routing tables in a network. Pre-requisite: CIT 161 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>016329</td>
<td>CIT 1674(0.6) Inter-VLAN Routing</td>
<td>0.6 credits</td>
<td>Describes the configuration of routing between VLANs in a small network. Pre-requisite: CIT 1672 AND CIT 1673 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>016330</td>
<td>CIT 1675(0.5) Routing Protocols &amp; RIP</td>
<td>0.5 credits</td>
<td>Describes dynamic routing protocols. Covers basic concepts and configuration of RIPv1 and RIPv2. Pre-requisite: CIT 1673 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>016331</td>
<td>CIT 1676(0.5) OSPF</td>
<td>0.5 credits</td>
<td>Describes the operation and configuration of single-area OSPF routing in a small network. Pre-requisite: CIT 1675 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>016332</td>
<td>CIT 1677(0.5) Access Control Lists</td>
<td>0.5 credits</td>
<td>Describes standard, extended, and named access control lists (ACLs), for IPv4 and IPv6 in a small network. Pre-requisite: CIT 161 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>016333</td>
<td>CIT 1678(0.5) DHCP and NAT</td>
<td>0.5 credits</td>
<td>Covers operations and configuration of DHCP on routers in a small network. Describes the operation and configuration of static NAT, dynamic NAT, and port address translation (PAT). Pre-requisite: CIT 1677 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>007013</td>
<td>CIT 1701(0.6) Database Concepts</td>
<td>0.6 credits</td>
<td>Provides an overview of database and database management system concepts. Pre-requisite: (CIT 105 OR OST 105 OR IMD 100) AND (MAT 085 OR MAT 126) OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>007014</td>
<td>CIT 1702(1) Database Modeling and Design</td>
<td>1 credit</td>
<td>Provides an overview of database modeling tools, normalization, and database design. Pre-requisite: CIT 1701 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>007015</td>
<td>CIT 1703(0.8) Database Implementation</td>
<td>0.8 credits</td>
<td>Provides an overview of designing a database model and implementation. Introduces Structured Query Language (SQL). Pre-requisite: CIT 1702 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>007016</td>
<td>CIT 1704(0.6) Database Admin and Management</td>
<td>0.6 credits</td>
<td>Provides an overview of optimization strategies and methods including administration, performance tuning, backup, and recovery. Pre-requisite: CIT 1703 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>016334</td>
<td>CIT 1711(1) Database Creation using SQL</td>
<td>1 credit</td>
<td>Introduces SQL techniques used in database/table creation. Pre-requisite: CIT 120 AND CIT 170, OR Consent of Instructor. Lecture: 1.0 credits (15 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>016335</td>
<td>CIT 1712(1) Basic Data Retrieval using SQL</td>
<td>1 credit</td>
<td>Examines SQL techniques for data retrieval and organization. Pre-requisite: CIT 1711. Lecture: 1.0 credits (15 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>016336</td>
<td>CIT 1713(1) Advanced SQL Techniques</td>
<td>1 credit</td>
<td>Applies SQL techniques for multiple table queries, functions, and subqueries. Pre-requisite: CIT 1712. Lecture: 1.0 credit (15 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>007017</td>
<td>CIT 1801(0.8) Security Concepts</td>
<td>0.8 credits</td>
<td>Introduces basic security concepts and methodologies. Assists in the preparation of the COMPTIA Security+ examination. Pre-requisite: ((CIT 105 OR OST 105) AND (CIT 160 OR CIT 161) OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course ID</td>
<td>Title</td>
<td>Description</td>
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<tr>
<td>CIT 1801(0.8)</td>
<td>007018</td>
<td>Threats and Vulnerabilities</td>
<td>Introduces threats and vulnerabilities in relation to computer and network devices. Pre-requisite: CIT 1801 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).</td>
</tr>
<tr>
<td>CIT 1803(0.8)</td>
<td>007019</td>
<td>Network Security</td>
<td>Introduces basic network security concepts and methodologies including application, data, and host security, access control, and identity management. Pre-requisite: CIT 1802 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).</td>
</tr>
<tr>
<td>CIT 1804(0.6)</td>
<td>007020</td>
<td>Cryptography</td>
<td>Introduces cryptography, tools, and management of keys and certificates. Pre-requisite: CIT 1803 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).</td>
</tr>
<tr>
<td>CIT 1821(0.8)</td>
<td>007021</td>
<td>Security Defense and Protocols</td>
<td>Presents information and skills required to secure computers and networks from attacks. Pre-requisite: CIT 180 or consent of instructor. Lecture: 0.8 credits (12 contact hours).</td>
</tr>
<tr>
<td>CIT 1822(0.8)</td>
<td>007022</td>
<td>Firewalls</td>
<td>Provides concepts and skills for configuring and using firewalls to secure computers and networks. Pre-requisite: CIT 1821 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).</td>
</tr>
<tr>
<td>CIT 1823(0.6)</td>
<td>007023</td>
<td>Perimeter Testing</td>
<td>Performs methods and skills for conducting perimeter defense testing against attacks. Pre-requisite: CIT 1822 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).</td>
</tr>
<tr>
<td>CIT 1841(0.8)</td>
<td>007025</td>
<td>Ethical Hacking Concepts</td>
<td>Presents concepts about ethical hacking. Pre-requisite: CIT 180 or consent of instructor. Lecture: 0.6 credits (12 contact hours).</td>
</tr>
<tr>
<td>CIT 1842(1)</td>
<td>007026</td>
<td>Computer/Network Attacks</td>
<td>Presents various types of attacks and exploits against computers and networks. Pre-requisite: CIT 1841 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).</td>
</tr>
<tr>
<td>CIT 1843(0.8)</td>
<td>007027</td>
<td>Malicious Software and Defense</td>
<td>Presents effective defensive techniques against real attacks. Pre-requisite: CIT 1842 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).</td>
</tr>
<tr>
<td>CIT 1844(0.4)</td>
<td>007028</td>
<td>Incident Handling</td>
<td>Provides concepts and techniques for proper incident handling and documentation. Pre-requisite: CIT 1843 OR Consent of Instructor. Lecture: 0.4 credits (6 contact hours).</td>
</tr>
<tr>
<td>CIT 2131(0.6)</td>
<td>007029</td>
<td>Windows OS Installation &amp; Setup</td>
<td>Provides concepts and skills for installation, setup, and management of the current Microsoft Windows operating system. Assists in the preparation of exams in the Microsoft certification exam series. Pre-requisite: CIT 111 AND (CIT 160 OR CIT 161) OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).</td>
</tr>
<tr>
<td>CIT 2132(0.6)</td>
<td>007030</td>
<td>Network Connectivity</td>
<td>Provides concepts and skills for managing network connections, configuring IP settings, and network settings in the current Microsoft Windows operating system environment. Assists in the preparation of exams in the Microsoft certification exam series. Pre-requisite: CIT 2131 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).</td>
</tr>
<tr>
<td>CIT 2133(0.6)</td>
<td>007031</td>
<td>Microsoft OS Resources</td>
<td>Provides concepts and skills for managing user accounts and access to resources in the current Microsoft Windows operating system environment. Assists in the preparation of exams in the Microsoft certification exam series. Pre-requisite: CIT 2132 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).</td>
</tr>
<tr>
<td>CIT 2134(0.6)</td>
<td>007032</td>
<td>Mobility Configurations</td>
<td>Provides concepts and skills for configuring mobility options and security in the current Microsoft Windows operating system environment. Assists in the preparation of exams in the Microsoft certification exam series. Pre-requisite: CIT 2133 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).</td>
</tr>
<tr>
<td>CIT 2135(0.6)</td>
<td>007033</td>
<td>Monitoring Windows Systems</td>
<td>Provides concepts and skills for managing updates and local performance, monitoring system performance and resource usage, configuring backups, system recovery, and troubleshooting the boot process in the current Microsoft Windows operating system environment. Assists in the preparation of exams in the Microsoft certification exam series. Pre-requisite: CIT 2134 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).</td>
</tr>
<tr>
<td>CIT 2141(1)</td>
<td>007060</td>
<td>OS Server Concepts</td>
<td>Provides concepts and skills for configuring mobility options and security in the current Microsoft Windows operating system environment. Assists in the preparation of exams in the Microsoft certification exam series. Pre-requisite: CIT 111 AND (CIT 160 OR CIT 161) OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).</td>
</tr>
<tr>
<td>CIT 2142(1)</td>
<td>007097</td>
<td>Server Management Services</td>
<td>Provides an overview of network concepts such as TCP/IP addressing and subnetting. Provides concepts and skills to install and setup Windows Server. Assists in the preparation of exams in the Microsoft certification exam series. Pre-requisite: CIT 2141 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).</td>
</tr>
<tr>
<td>CIT 2143(1)</td>
<td>007098</td>
<td>Server Role Policy</td>
<td>Provided concepts and knowledge to configure and manage server role policy and security compliance. Assists in the preparation of exams in the Microsoft certification exam series. Pre-requisite: CIT 2142 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).</td>
</tr>
<tr>
<td>CIT 2151(0.75)</td>
<td>016337</td>
<td>Initial Server Deployment</td>
<td>Provides concepts and skills necessary to install and configure Microsoft® Windows® Server. Covers initial network installation &amp; configuration of a file server including update policies, file and folder access policies and security at an intermediate level. Pre-requisite: CIT 214 OR Consent of instructor. Lecture: 0.75 credits (11.25 contact hours).</td>
</tr>
<tr>
<td>CIT 2152(0.75)</td>
<td>016338</td>
<td>Administering the Server</td>
<td>Provides concepts and skills to administer a Windows Server deployment. Covers server infrastructure monitoring, remote access configuration, and network policy implementation in an enterprise environment. Pre-requisite: CIT 2151 OR Consent of instructor. Lecture: 0.75 credits (11.25 contact hours).</td>
</tr>
<tr>
<td>CIT 2153(0.75)</td>
<td>016339</td>
<td>Administering the Domain</td>
<td>Provides concepts and skills to design, develop, and evaluate databases and web servers including an integrated web database application in e-commerce and Web scripting. Covers creation of a database-driven web site. Pre-requisite: CIT 2152 OR Consent of instructor. Lecture: 0.75 credits (11.25 contact hours).</td>
</tr>
<tr>
<td>CIT 2154(0.75)</td>
<td>016340</td>
<td>Advanced Administration Topics</td>
<td>Covers skills needed to administer a Microsoft Server Domain regarding setup and maintenance of Group Policy infrastructure, advanced networking topics, and DNS deployments. Pre-requisite: CIT 2153 OR Consent of instructor. Lecture: 0.75 credits (11.25 contact hours).</td>
</tr>
<tr>
<td>CIT 2171(0.8)</td>
<td>007034</td>
<td>Intro to UNIX/Linux</td>
<td>Introduces basic Unix/Linux concepts. Pre-requisite: (CIT 111 AND CIT 160) OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).</td>
</tr>
<tr>
<td>CIT 2172(0.8)</td>
<td>007035</td>
<td>Accounts, Resources, &amp; Editors</td>
<td>Provides Unix/Linux commands to manage accounts, file systems and resources. Introduces editors for creating text files. Pre-requisite: CIT 2171 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).</td>
</tr>
<tr>
<td>CIT 2173(1.4)</td>
<td>007036</td>
<td>File Processing and Lab</td>
<td>Introduces commands and scripts for file processing. Pre-requisite: CIT 2172 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).</td>
</tr>
<tr>
<td>CIT 2321(1)</td>
<td>016341</td>
<td>Help Desk &amp; Customer Service</td>
<td>Explores help desk concepts and customer service skills. Pre-requisite: CIT 105 OR Consent of Instructor. Lecture: 1 credit (15 contact hours).</td>
</tr>
<tr>
<td>CIT 2322(1)</td>
<td>016342</td>
<td>Help Desk Tools &amp; Techniques</td>
<td>Introduces a variety of tools and techniques to provide user support in help desk operations. Explores troubleshooting problems, help desk operations and software, needs analysis, and facilities management. Pre-requisite: CIT 2321. Lecture: 1 credit (15 contact hours).</td>
</tr>
<tr>
<td>CIT 2323(1)</td>
<td>016343</td>
<td>End User Support</td>
<td>Explores writing for end users, training end users and other topics related to end user support. Pre-requisite: CIT 2322. Lecture: 1 credit (15 contact hours).</td>
</tr>
</tbody>
</table>
CIT 2531(0.75) Course ID: 016344
Web Servers and Applications
Provides students with the knowledge and skills to design and develop client-side and server-side applications for web servers. Includes development of skills related to the installation and configuration of web servers.
Components: Lecture

CIT 2532(0.75) Course ID: 016345
Databases and E-Commerce
Provides the study of databases and web servers in e-commerce, transaction processing, and web scripting. Emphasizes designing and developing a functional e-commerce support database for a dynamic web site. Pre-requisite: CIT 2531. Lecture: 1 credit (15 contact hours)
Components: Lecture

CIT 2533(1) Course ID: 016346
Integrated Web Databases
Provides students with the knowledge and skills to design, develop, and evaluate an integrated web database application. Includes the creation of a functional database driven web site. Pre-requisite: CIT 2532. Lecture: 1 credit (15 contact hours)
Components: Lecture

CIT 2611(0.75) Course ID: 007099
Win Directory Services Overview
Provides knowledge and skills to configure and implement directory services, domains, and user accounts. Pre-requisite: CIT 213 OR Consent of Instructor. Lecture: 0.75 credits (11.25 contact hours)
Components: Lecture

CIT 2612(0.75) Course ID: 007100
Directory Objects & Publishing
Focuses on creation and management of directory objects, trees, and objects and publishing resources. Pre-requisite: CIT 2611 OR Consent of Instructor. Lecture: 0.75 credits (11.25 contact hours)
Components: Lecture

CIT 2613(0.75) Course ID: 007101
Dir Services Group Policy
Explains how to configure group policy settings to manage directory services such as users, desktop environment, software, and security settings. Pre-requisite: CIT 2612 OR Consent of Instructor. Lecture: 0.75 credits (11.25 contact hours)
Components: Lecture

CIT 2614(0.75) Course ID: 007102
Directory Management & Services
Explains how to configure and manage operations, restoration, and replication of Directory Services. Pre-requisite: CIT 2613 OR Consent of Instructor. Lecture: 0.75 credits (11.25 contact hours)
Components: Lecture

CIT 2641(0.75) Course ID: 007037
Windows Server Deployment
Plan infrastructure deployment and services including server roles, access control, and group policy. Pre-requisite: CIT 2611 AND (CIT 214 OR CIT 262)) OR Consent of Instructor. Lecture: 0.75 credits (7.5 contact hours). Lab: 0.25 credits (7.5 contact hours)
Components: Laboratory, Lecture

CIT 2642(0.75) Course ID: 007038
Planning Directory Services
Plan application, file, and print services. Pre-requisite: CIT 2641 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours). Lab: 0.25 credits (7.5 contact hours)
Components: Laboratory, Lecture

CIT 2643(0.75) Course ID: 007044
Server Management Strategies
Design and manage infrastructure and server strategies. Pre-requisite: CIT 2642 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours). Lab: 0.25 credits (7.5 contact hours)
Components: Laboratory, Lecture
CMS 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

CMS 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 201(3) Course ID: 005085

Instructor Consent Required
Introduction to Conversational Programming
Introduces students to conversational programming guidelines which will include program preparation, conversational input, and minor editing. Pre-requisite: Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours). Components: Lecture Attributes: Technical

CMM 2301(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

CMS Communications

CMS 105(3) Course ID: 000292
Multimedia Production and Applications I
Students are introduced to the technologies and applications of multimedia systems including production, presentation, and transmission of video, voice, and data. Lecture: 2 hours; Laboratory: 2 hours. Components: Laboratory, Lecture Attributes: Technical

CMS 120(1) Course ID: 000293
Employability Skills Seminar
This course will focus on those skills necessary for job success such as self-assessment, resume writing, interview techniques, job search, job marketing strategies, and desired attributes for on-the-job success. Lecture: 1.0 hour. Offered on a Pass/Fail basis only. Components: Lecture Attributes: Other

CMS 142(1 - 4) 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 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 266(3) Course ID: 006258
Basic Television Production
Introduces the principles and techniques of field and studio production and provides practical application in general broadcast station operations. Lecture: 2.0 credit hours (30 contact hours). Laboratory: 1.0 credit (30 contact hours). Components: Laboratory, Lecture Attributes: Other

COM Communications

COM 101(3) Course ID: 000310
Introduction to Communications
Introduces the process of communication as a critical element in human interaction and in society. Enhances effective communication and informed use of the mass media. Pre-requisite 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: 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. Components: Lecture Attributes: Other

COM 205(3) Course ID: 016093
Business and Professional Communication
Provides opportunity to examine and develop oral communication strategies appropriate to business and professional environments. Includes oral presentations, interpersonal communication strategies, intercultural communication, interviewing, communicating in teams, leadership communication and conflict resolution skills. Does not substitute for COM 181 for Business transfer students. Pre-requisite: Current KCTCS placement scores for College level reading and writing, or Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: OC - Oral Communication

COM 249(3) Course ID: 000314
Mass Media and Mass Culture
Examines the interplay between the technology and content of the mass communications media and culture. Pre-requisite: COM 101 or SOC 101. Lecture: 3 credits (45 contact hours). Components: Lecture Course Equivalents: SOC 249 Attributes: SB - Social Behavior Science

COM 252(3) Course ID: 000315
Introduction to Interpersonal Communication
Examines basic verbal and nonverbal concepts affecting the communication process in various interpersonal contexts. Requires participation in written and oral activities designed to develop and improve interpersonal skills. Includes perspective-taking, relationship and conversation management, effective listening, conflict management, communication climate, communication anxiety, and cultural/gender differences in interpersonal communication. Pre-requisite Or Co-requisite: Current KCTCS placement scores for college level reading and writing, or consent of instructor. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: OC - Oral Communication, Course Also Offered in Modules
COM 254(3)  Course ID: 004552
Introduction to Intercultural Communication
Introduces intercultural communication with an emphasis on the relationships between culture and communication, social/psychological variables, verbal/nonverbal language systems, intercultural communication perceptions, and conflict resolution. Includes the practical application of contemporary issues in cross-cultural interaction, media representation, and daily social interactions to intercultural communication concepts. Pre-requisite or Co-requisite: Current KCTCS placement scores for college level reading and writing, or consent of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

COM 281(3)  Course ID: 000316
Communication in Small Group
Examines communication processes in small group situations including conflict, leadership, and decision making. Includes participation in group discussion and the development of skills in analyzing group performance. Pre-requisite Or Co-requisite: Current KCTCS placement scores for college level reading and writing, or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: OC - Oral Communication

COM 284(1)  Course ID: 002198
Intercollegiate Debating
Preparation for and participation in intercollegiate debating. May be repeated to a maximum of four credits. Lecture: 1 credit (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 288(3)  Course ID: 000318
Oral Interpretation
Analyzes prose and poetry for oral interpretation. Helpful to those who wish to teach in literature. Pre-requisite Or Co-requisite: Current KCTCS placement scores for college level reading and writing, or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Other

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 hours.

Components: Lecture
Attributes: Other

COM 1811(1)  Course ID: 015806
Public Speaking Essentials
Applies the basic principles and techniques in research, organization and delivery of speeches appropriate to the purpose, occasion, and audience. Pre-requisite: Current KCTCS placement scores for college level reading and writing OR Consent of Instructor. Lecture: 1.0 credit (15.0 contact hours).

Components: Lecture

COM 1812(1)  Course ID: 015807
Basic Informatve Speaking
Provides practical platform experience in developing speaking abilities to enable the student to communicate orally in clear, coherent language appropriate to the presentation of informative speeches. Pre-requisite: COM 1811. Lecture: 1.0 credit (15.0 contact hours)

Components: Lecture

COM 1813(1)  Course ID: 015808
Basic Persuasive Speaking
Provides practical platform experience in developing speaking abilities to enable the student to communicate orally in clear, coherent language appropriate for the presentation of persuasive speeches. Pre-requisite: COM 1812. Lecture: 1.0 credit (15.0 contact hours).

Components: Lecture

COM 2051(1)  Course ID: 016231
Communication Foundations
Demonstrates the role of oral communication in culturally diverse business and professional settings and develops an understanding of self-concept and perception, impression management. Pre-requisite: Current KCTCS placement scores for college level Reading and Writing or Consent of Instructor. Lecture: 1 credit (15 contact hours).

Components: Lecture

COM 2052(1)  Course ID: 016232
Communication In A Job Search
Provides experience in communication developing communication skills for use in technology-based job exploration with an emphasis on ethics, interviewing, active listening, and verbal and nonverbal communication for use in culturally diverse business and professional settings. Pre-requisite: COM 2051. Lecture: 1 credit (15 contact hours).

Components: Lecture

COM 2053(1)  Course ID: 016233
Communication In Organizations
Provides experience in communication developing communication competence in leadership roles, conflict management, and effective, informative, and persuasive communication skills for use in culturally diverse business and professional settings. Pre-requisite: COM 2052. Lecture: 1 credit (15 contact hours).

Components: Lecture

COM 2521(1)  Course ID: 005800
Looking In
Examines basic verbal and nonverbal concepts affecting the interpersonal process. Includes both verbal and nonverbal elements affecting communication between individuals in settings ranging from the family, peer groups, and work contexts. Pre-requisite Or Co-requisite: Current KCTCS placement scores for college level reading and writing, or consent of instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

COM 2522(1)  Course ID: 005801
Communicating and Responding
Examines basic verbal and nonverbal concepts affecting the communication process in various interpersonal contexts. Topics include both verbal and nonverbal elements affecting communication between individuals in setting ranging from the family, peer groups, and work contexts. Pre-requisite: COM 2521. Lecture: 1 credit (15 contact hours).

Components: Lecture

COM 2523(1)  Course ID: 005802
Looking at Relational Dynamics
Examines basic verbal and nonverbal concepts affecting the communication process in various interpersonal contexts. Includes the basic needs in developing interpersonal relationship with emphasis on the types of relations and the components involved in such relationships including compliance-gaining and conflict resolution. Pre-requisite: COM 2522. Lecture: 1 credit (15 contact hours).

Components: Lecture

COS 105(14)  Course ID: 005534
Esthetician I
Covers the history of esthetics, today's career opportunities, and professional image. Includes Kentucky Statutes and Regulations, analysis of skin types for facial products, massage techniques, and hair removal. Provides guidelines that prevent the contamination of products, implements, and equipment for the prevention of disease. Includes the study of structure, composition, and function of the skin. Pre-requisite: (High school diploma or equivalent) and admission to esthetician program. Lecture/ Lab: 14.0 credit hours (360 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

COS 114(14)  Course ID: 001213
Cosmetology I, 1-1
This course is designed to cultivate proper attitude and behavior patterns needed to create a successful Cosmetologist. Kentucky Statutes and regulations, safety, bacteriology, sanitation, infection control, first aid treatment, structure and disorders of the nail are studied. An introduction to the basic fundamentals of hair, skin and nail care, hair styling and shaping, manicures and pedicures, chemical and thermal services, and wigs. The student in developing manipulative skills and practicing procedures utilizes mannequins and classmates. After 300 hours student begin to apply procedures on clients under the direct supervision of the instructor.

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

COS 116(14)  Course ID: 001214
Cosmetology II, 8-2
A study of basic chemistry with emphasis placed on the physical and chemical properties of cosmetic materials. Electricity and light therapy are discussed and an in-depth study of anatomical structures affected by cosmetological services including disorders of the skin, scalp, hair, and nails. The instructor gives the students progressively more difficult assignments with close supervision.

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

COS 135(1 - 8)  Course ID: 001223
Instructor Consent Required
Individual Requirements I
Provides additional lecture/laboratory time to meet licensure requirements of 1800 clock hours. Pre-requisite: Consent of Instructor. Lecture: 1.0 - 8.0 contact hours (15 -120 contact hours). Laboratory: 1.0 - 8.0 contact hours (30 - 240 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

COS 150(13)  Course ID: 001224
Basic Nail Tech
Provides knowledge of the art and science of nail technology including the rules and regulations of the State Board of Cosmetology as they apply to the salon. Includes bacteriology and infection control through the practice of sanitation procedures, the study of the cells, structure of the hand, arm, nail and their diseases and disorders, and the study of beauty salon management including the practice of interacting with clients, co-workers, and supervisors. (Students practice on classmates and progress to work on clients.) Lecture: 5 credits (75 contact hours), Laboratory: 8 credits (240 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

COS 152(13)  Course ID: 001225
Applied Nail Technology
Continues the study of nail technology. Includes a comprehensive written and practical exam in preparation for state board licensure. Pre-requisite: COS 150. Lecture: 5 credits (75 contact hours), Laboratory: 8 credits (240 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

COS 205(14)  Course ID: 005540
Esthetician II
Covers organic/inorganic chemistry and cosmetic ingredients. Focuses on facial enhancements through the use of make-up artistry and application including hair removal procedures and applications. Includes the study of skin conditions, disorders and diseases, and those treatable by the esthetician. Explains treatments related to skin and skin disorders. Pre-requisite: COS 105 or Consent of Instructor. Lecture/Lab: 14.0 credit hours (360 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

COS 135(1)  Course ID: 001226
Course Also Offered in Modules, Technical
**Course Descriptions**

**COS 210(13)** Course ID: 001233

**Student Teaching I**
Introduces teaching methods used in training cosmetology and nails technology students. Inclusive of theory, class methods of lecture, media use and testing methods. Introduces methods used to teach the practical application of skills. Pre-requisite: Cosmetologist's License; One year work experience, apprentice cosmetologists instructor's license. Lecture: 3 credits (45 contact hours). Laboratory: 10 credits (300 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

**COS 212(13)** Course ID: 001234

**Student Teaching II**
Expands the apprentice instructor's ability to apply various methods used to train cosmetology and nail technology students. Pre-requisite: COS 212. Lecture: 3 credits (45 contact hours). Laboratory: 10 credits (300 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

**COS 214(13)** Course ID: 001235

**Student Teaching III**
Provides preparatory work to prepare the apprentice instructor for the Kentucky Board of Hairdressers instructor exam. Pre-requisite: COS 212. Lecture: 3 credits (45 contact hours). Laboratory: 10 credits (300 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

**COS 216(20)** Course ID: 015567

**Teaching I**
Introduces teaching methods used in training cosmetology, esthetics, and nail technology students. Demonstrates teaching methods of theory, media use, and testing methods. Develops and applies the methods used to teach the practical application of skills. Pre-requisite: Cosmetologist's License, one year work experience, and Apprentice Cosmetologists Instructor's License. Lecture: 6.0 credits (90 contact hours), Lab: 14.0 credits (420 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

**COS 217(20)** Course ID: 015568

**Teaching II**
Introduces teaching methods used in training cosmetology, esthetics, and nail technology students. Demonstrates advanced teaching methods of theory, media use, and testing methods. Develops and applies methods used to teach the practical application of skills. Provides preparatory work to prepare the apprentice instructor for the Kentucky Board of Hairdressers and Cosmetologists' instructor examination. Pre-requisite: COS 216. Lecture: 6.0 credits (90 contact hours), Lab: 14.0 contacts (420 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

**COS 218(14)** Course ID: 001215

**Cosmetology III, 6-3**
Provides knowledge of the structure and function of the human body, including the interaction of all the body systems in maintaining homeostasis. All phases of beauty salon management are studied, including interacting with clients, co-workers and supervisors. Laboratory experience is advanced with performance expectations set at a higher level.

Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

**COS 220(12)** Course ID: 001216

**Cosmetology IV, 6-4**
This course is designed for a total review of the cosmetology curriculum. A comprehensive written and practical exam is given in preparation for the State Board Licensure exam. Students implement their own judgement of procedures and solutions to be used on clients with supervision.

Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

**COS 235(1 - 8)** Course ID: 004413

**Instructor Consent Required**

**Individual Requirements II**
Provides additional lecture/laboratory time to meet licensure requirements of 1800 clock hours. Pre-requisite: Consent of Instructor. Lecture/Lab: 1.0 - 8.0 credit hours (15 - 120 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

**COS 275(13)** Course ID: 005545

**Esthetician III**
Covers procedures for business and management, the practice of esthetic setup, sanitation, application techniques, advanced esthetics which include peels, deep pore cleansing, clinical skin care, aroma therapy, and spa/body treatments. Includes Kentucky Statutes and Regulations. Provides for the study of the functions and benefits of electrotherapy including pre- and post-operative care for physician treatments and the application of various cosmeceutical products. Pre-requisite: (High school diploma or equivalent) and admission to esthetician program. Lecture/Lab: 13.0 credits (315 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

**COS 1141(3)** Course ID: 004994 27-AUG-2006

**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 27-AUG-2006

**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 27-AUG-2006

**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 27-AUG-2006

**Cosmetology Skills A**
Focus on developing design elements of hair. Laboratory: 1 credit (45 contact hours).

Components: Laboratory

**COS 1145(1)** Course ID: 004998 27-AUG-2006

**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 27-AUG-2006

**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 27-AUG-2006

**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 27-AUG-2006

**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 27-AUG-2006

**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 27-AUG-2006

**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 27-AUG-2006

**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 27-AUG-2006

**Cosmetic Techniques Lab**
Provides an opportunity to apply chemical services. Focuses on skin, color application and straightening of hair. Lecture: 1 credit (45 contact hours).

Components: Laboratory

**COS 1165(1)** Course ID: 005006 27-AUG-2006

**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 27-AUG-2006

**Intermediate Hair Design Lab**
Continues the application of hair design theory and skills. Lecture: 1 credit (15 contact hours).

Components: Laboratory

**COS 1167(1)** Course ID: 005008 27-AUG-2006

**Facials**
Theory of facials. Lecture: 1 credit (15 contact hours).

Components: Lecture

**COS 1168(1)** Course ID: 005009 27-AUG-2006

**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 27-AUG-2006

**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 27-AUG-2006

**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 27-AUG-2006

**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 27-AUG-2006

**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). Lecture: 1 credit (45 contact hours).

Components: Laboratory

**COS 2185(1)** Course ID: 005014 27-AUG-2006

**Hair Enhancements**
Study of artificial hair. Lecture: 1 credit (15 contact hours).

Components: Lecture

**COS 2186(1)** Course ID: 005015 27-AUG-2006

**Client Services Lab**
Provides the student with the opportunity to demonstrate client services. Emphasis is on communication and positive public relation techniques. Lecture: 1 credit (45 contact hours).

Components: Laboratory

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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 as 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 explosives. Pre-requisite: CRI 107 and (Current placement scores for RDG 030 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (89 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 (CRJ 102) 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

CRJ 100(3) Course ID: 004191
Introduction to Criminal Justice
Provides an introduction to the philosophical and historical background of agencies of the criminal justice systems, processes, purposes and functions. Includes an evaluation of the criminal justice system today, including trends and career orientation. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credit hours (45 contact hours).
Components: Lecture Attributes: Technical

CRJ 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

CRJ 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

CRJ 204(3) Course ID: 004198
Criminal Investigations
Provides the fundamentals of crime scene investigations, which includes searching and recording of the scene, collection and preservation of physical evidence, interviews and interrogation of victims, witnesses, and suspects, report writing and case preparation. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CRJ 208(3) Course ID: 004199
Delinquency and the Juvenile Justice System
Provides an introduction of the origins and theories associated with juvenile delinquency, and a comprehensive analysis of environmental issues that influence delinquency, plus a thorough overview of the juvenile justice system processes. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CRJ 210(3) Course ID: 004200
Physical Security Technology & Systems
Introduces facility security with the use of environmental design and integrated electronic technology (cameras, monitors, and alarms). Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CRJ 211(3) Course ID: 004201
Liability & Legal Issues
Provides an overview of legal aspects of security, which includes but is not limited to civil and criminal law, liability of asset protection, use of force, false imprisonment, negligent security, and invasion of privacy. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090) AND (CRJ 100 or Consent of Instructor). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CRJ 215(3) Course ID: 004202
Introduction to Law Enforcement
Provides an introduction to the study of law enforcement. Introduces the historical developments of law enforcement, police operations and programs. Pre-requisite: (Current placement scores for RDG 30 or higher 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 216(3) Course ID: 004203
Criminal Law
Provides an overview of the definitions and functional components of criminal law in the field of criminal justice. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CRJ 217(3) Course ID: 004204
Criminal Procedures
Provides an overview of the different criminal procedural laws by examining the specific Amendments that outline the guidelines of the administration of substantive laws. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical
CRI 218(3)  Course ID: 004193
Police Supervision
Provides an overview of the administrative, supervisory, and leadership roles that are required within a law enforcement agency. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090) AND CRJ 100 or CRJ 215 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CRI 219(4)  Course ID: 007358
Police Recruit Defensive Tactics
Provides the proper methods of police defensive tactics, emphasizes necessary skills, and establishes an understanding of the 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

CRI 220(3)  Course ID: 005220
Introduction to Computer Forensics for Criminal Justice
Introduces the study of cybercrime with an emphasis on planning, detection, and response with the goals of 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: 1.0 credit (15 contact hours). Lab: 3.0 credits (91.5 contact hours).
Components: Laboratory Lecture Attributes: Technical

CRI 222(3)  Course ID: 004205
Prison & Jail Administration
Introduces the correctional procedures and administration of jails and prisons by focusing on historical and current perspectives of penology, administrative responsibilities of correctional leaders, and correctional staff responsibilities. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CRI 224(4)  Course ID: 007359
Basic Traffic Collision Investigation
Introduces basic vehicle collision investigation, from a law enforcement perspective, and entails evidence and investigation techniques and mathematical calculations. Pre-requisite: CRJ 204 and MAT 110 and (Current placement scores for RDG 030 or higher or completion of RDG 020) and (Current placement 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

CRI 225(4)  Course ID: 007360
Driving and Traffic Enforcement for Law Enforcement
Provides an understanding of vehicle offenses, tactical police driving, and traffic stops, in a scenario-based environment that demonstrates applied skills. Pre-requisite: CRJ 215 and (Current placement scores for RDG 030 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory Lecture Attributes: Technical

CRI 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

CRI 231(3)  Course ID: 006234
Legal Aspects of Corrections
Covers research, study, and discussion of current and emerging topics, issues, and trends in corrections. Introduces legal aspects of corrections. Includes a historical perspective, as well as applicable case law, in the areas of corrections operations, practices, and procedures. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CRI 240(3)  Course ID: 006102
Introduction to Corporate & Industrial Security
Includes research, study, and discussion of current and emerging topics, issues, and trends in corporate and industrial security. Covers basic corporate and industrial security procedures and the roles of the key personnel within the private security area. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CRI 245(3)  Course ID: 006232
Introduction to Business and Industrial Fraud
Includes research, study, and discussion of current and emerging topics, issues and trends in business and industrial fraud. Covers basic concepts of occupational fraud and abuse and the roles of the key personnel within the criminal justice system. Includes practical procedures for defining, identifying, and investigating business and industrial fraud. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.5 credits (45 contact hours).
Components: Lecture Attributes: Technical

CRI 277(3)  Course ID: 006804
Introduction to Criminology
Provides an introduction to the understanding of criminal behavior by focusing on crime trends and patterns, the amount of crime, and the theories of crime. Theories of crime will include the biological, psychological, sociological, and integrated explanations of behavior. Theories of crime will be utilized to address the procedures and administration of criminal justice in society. Pre-requisite: If yes, list current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CRI 278(3)  Course ID: 005781
Terrorism and Political Violence
Provides an introduction to the study of terrorism and terrorist organizations. Introduces the student to the diverse definitions of terrorism and the social and political consequences of varying definitions, behavioral aspects of terrorist and the various justifications for terrorist activities. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090).
Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CRI 290(3)  Course ID: 004206
Internship in Criminal Justice
Allows the criminal justice student the opportunity to broaden their educational experience through observation and work assignments at a recognized criminal justice agency. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090) AND Sophomore Standing and completion of at least 12 semester hours of Criminal Justice work. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CRI 295(1)  Course ID: 015650
Criminal Justice Capstone
Serves as the capstone course for the Criminal Justice degree program. Integrates prior learning outcomes into a single integrated learning experience. Includes preparation for and completion of the post exit exam that all program graduates must complete. Pre-requisite: (CRJ 100 and CRJ 202 and CRJ 204 and CRJ 216 and CRJ 217) AND CRJ 290 and Consent of Program Coordinator. Lecture: 1.0 credit (15 contact hours).
Components: Lecture Attributes: Technical

CRI 299(1 - 3)  Course ID: 004207
Instructor Consent Required
Selected Topics in Criminal Justice
Introduces specialized topics in the field of criminal justice to meet current trends and investigations of contemporary topics in the discipline. The topics of the course and the number of credit hours determined are at the discretion of the instructor and college providing the course. This course may be repeated 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  Auto Body Repair

CRT 100(2)  Course ID: 000928
Introduction to Collision Repair
Introduces the student to safety, sanding, grinding, pulling, roughing and filling; the use of tools and equipment; and preparing and priming automotive panels through lectures and demonstration. Lecture: 2.0 (30 contact hours).
Components: Lecture Attributes: Technical

CRT 130(6)  Course ID: 000929
Non-Structural Analysis and Damage Repair
Provides instruction in the replacement and alignment of bolts on automotive parts such as doors, hood, and fenders; as well as instruction on the repair and replacement of non-structural weld-on automotive panels by aligning, welding, cutting and drilling through demonstrations and lectures. Includes instruction on how to repair plastic, fiberglass, SMC and flexible automobile parts. Lecture: 6.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CRT 131(6)  Course ID: 002345
Non-Structural Analysis and Damage Repair Lab
Provides practical experience in the replacement and alignment of bolts on automotive parts such as doors, hood, and fenders; as well as instruction on the repair and replacement of non-structural weld-on automotive panels by aligning, welding, cutting and drilling. Includes instruction on how to repair plastic, fiberglass, SMC and flexible automobile parts. Requires skills that are most effectively taught and practiced on live work; the exact content will be influenced by the live work available. Pre-requisite Or Co-requisite: CRT 130. Lab: 6.0 credits (180 - 270 contact hours).
Components: Laboratory Attributes: Technical
CRT 150(6)  
Course ID: 000931  
Painting and Refinishing  
Provides instruction in the use of lacquer, acrylic enamel and base coat/clear coat refinishing products, masking procedures, preparations and paint problems. Lecture: 6.0 credits (90 contact hours).  
Components: Lecture  
Attributes: Technical  

CRT 151(6)  
Course ID: 000932  
Painting and Refinishing Lab  
Provides instruction in the use of lacquer, acrylic enamel and base coat/clear coat refinishing products, masking procedures, preparations and paint problems. The auto and/or autos being used for live work will determine exact content.) Pre-requisite Or Co-requisite: CRT 150. Lab: 6.0 credits (180 - 270 contact hours).  
Components: Laboratory  
Attributes: Technical  

CRT 159(1 - 8)  
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: Co-Op  
Attributes: Technical  

CRT 230(6)  
Course ID: 000936  
Structural Analysis and Damage Repair  
Presents instruction on the analysis, repair and replacement of structural panels on unibody automobiles and body and frame alignment on unibody and frame cars. Lecture: 6.0 credits (90 contact hours).  
Components: Lecture  
Attributes: Technical  

CRT 231(6)  
Course ID: 000937  
Structural Analysis and Damage Repair Lab  
Presents instruction on the analysis, repair and replacement of structural panels on unibody automobiles and body and frame alignment on unibody and frame cars. Pre-requisite Or Co-requisite: CRT 230. Lab: 6.0 credits (180 - 270 contact hours).  
Components: Laboratory  
Attributes: Technical  

CRT 250(6)  
Course ID: 000938  
Mechanical and Electrical Components  
Provides instruction in the diagnosis, repair, and/or replacement of suspension, steering, electrical, brake, drive train, fuel, exhaust, and restraint systems. Includes theories and concepts of heating and air conditioning systems. Lecture: 6.0 credits (90 contact hours).  
Components: Lecture  
Attributes: Technical  

CRT 251(6)  
Course ID: 000939  
Mechanical and Electrical Components Lab  
Provides practical experience in the diagnosis, repair, and/or replacement of suspension, steering, electrical, brake, drive train, 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 292(3)  
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 293(2)  
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: 000944  
Instructor Consent Required  
Advanced Practicum  
Provides supervised on-the-job work experience related to the students’ educational objectives. (Students participating in the Co-op Education program receive compensation for their work. May be taken for 1 - 8 credits.) Pre-requisite: Consent of Instructor. Co-Op: 2.0 credits (150 contact hours).  
Components: Independent Study  
Attributes: Technical  

CRT 299(2)  
Course ID: 000945  
Instructor Consent Required  
Advanced Cooperative Education  
Provides supervised on-the-job work experience related to the students’ educational objectives. (Students participating in the Co-op Education program receive compensation for their work.) Pre-requisite: Consent of Instructor. Co-Op: 2.0 credits (150 contact hours).  
Components: Co-Op  
Attributes: Technical  

CS 115(3)  
Course ID: 000321  
Introduction to Computer Programming  
This course teaches introductory skills in computer programming using a high-level programming language. There is an emphasis on both the principle and practice of computer programming. Covers principles of problem solving by computer and requires completion of a number of programming assignments. 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)  

CS 221(2)  
Course ID: 000325  
First Course in Computer Science for Engineers  
Characteristics of a procedure-oriented language; description of a computer as to internal structure and the representation of information; introduction to algorithms. Emphasis will be placed on the solution of characteristic problems arising in engineering. Pre-requisite: Not open for students who have received credit for CS115. Lecture: 2.0 credits (30 contact hours).  
Components: Lecture  
Attributes: University Course (University of Kentucky)  

CS 261(3)  
Course ID: 016137  
Social Networks: Methods and Tools  
The complex connectedness of the modern society is a multifaceted phenomenon resulting from the growing density of the human population, the advent of fast global mass transportation infrastructure, the emergence of global companies and markets, and spurred by the Internet and its applications such as the Web, Facebook and Twitter. In this course, we learn about graph theory, game theory and computational tools required to model and analyze social networks, matching markets, web search, network externalities, tipping points, information cascades, epidemics, small worlds, and voting schemes. The course requires no programming background and has no university-level Pre-requisites. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: University Course (University of Kentucky)  

CS 275(4)  
Course ID: 007200  
Discrete Mathematics  
Components: Lecture  
Attributes: University Course (University of Kentucky)  

CUL 100(2)  
Course ID: 004209  
Introduction to Culinary Arts  
Provides an introduction to several aspects of the food industry. Includes an overview of the history of the profession and current career opportunities and trends. Introduces proper terminology for various types of equipment and cooking methods. Lecture: 2.0 credits (30 contact hours).  
Components: Lecture  
Attributes: Technical  

CUL 105(2)  
Course ID: 004210  
Applied Introduction to Culinary Arts  
Provides an applied introduction to several aspects of the food industry. Includes an overview of the history of the profession and current career opportunities and trends. Introduces proper terminology for various types of equipment and cooking methods in a laboratory setting. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).  
Components: Laboratory, Lecture  
Attributes: Technical
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. Co-requisite: CUL 100 or Consent of instructor.

Components: Laboratory, Lecture
Attributes: Technical

CUL 220(2) Course ID: 004212
Sanitation and Safety
Develops an understanding of the basic principles of sanitation and safety and applies them in the food service operations. Reinforces personal hygiene habits and food handling practices that protect the health of the consumer. Lecture 2 credits (30 contact hours)

Components: Lecture
Attributes: Technical

CUL 211(4) Course ID: 004213
Basic Food Production
This course provides a study of the basic principles of food selection, storage, and preparation, identification and classification of fruits and vegetables; preparation of stocks, soups and sauces; basic principles of cooking; baking, kitchen operations; and a study of breakfast food. Pre-requisite or Co-requisite: CUL 100 and CUL 200 or consent of instructor.

Components: Laboratory, Lecture
Attributes: Technical

CUL 215(4) Course ID: 004214
Basic Baking
Applies fundamentals of baking science to preparation of a variety of products and to learn use and care of equipment in bake shop and/or baking area. Pre-requisite or Co-requisite: CUL 100 or CUL 200 or consent of instructor. Lecture: 2.0 credits (30 contact hours) Lab: 2.0 credits (60 contact hours)

Components: Laboratory, Lecture
Attributes: Technical

CUL 220(4) Course ID: 004215
Advanced Baking & Pastry Arts
Applies fundamentals of baking science to the preparation of a variety of baked products including choux paste, frozen desserts, and creams, custards, and related sauces. Emphasis will be placed on nutritional aspects of baked products and finishing techniques. Pre-requisite: CUL 215. Lecture: 2.0 credits (30 contact hours) Lab: 2.0 credits (60 contact hours)

Components: Laboratory, Lecture
Attributes: Technical

CUL 225(4) Course ID: 005137
Professional Confection and Pastry Arts
Finishing techniques for confections and pastries, creating decorative centerpieces, sugar artwork, and cake decorating. Fundamentals of baking science along with advanced finishing techniques. Pre-requisite: CUL 215. Lecture: 2 credits (30 contact hours) Laboratory: 2 credits (60 contact hours)

Components: Laboratory, Lecture
Attributes: Technical

CUL 230(3) Course ID: 004216
Basic Nutrition
Describes the characteristics, functions, and food sources of the major nutrients and how to maximize nutrient retention in food preparation and storage. Applies the principles of nutrient needs throughout the life cycle through menu planning and preparation for specialty diets. Lecture: 3 credits (45 contact hours)

Components: Lecture
Attributes: Technical

CUL 240(4) Course ID: 004217
Meats, Seafood, & Poultry
This course focuses on the identification of various cooking techniques for and the preparation of meats, seafood, and poultry. Pre-requisite: CUL 100 and CUL 200. Pre-requisite or Co-requisite: CUL 211 or consent of the instructor.

Components: Laboratory, Lecture
Attributes: Technical
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 Dental Hygiene

DAH 101(2)  
Course ID: 000330  
Infection Control & Medical Emergencies  
Examines current regulatory mandates, specific step-by-step procedures related to infection control, management of hazardous materials in the dental office, management of emergency situations and basic concepts of pharmacology. Pre-requisite: Admission into the Integrated Dental Assisting or Dental Hygiene Program. Lecture: 1.5 credits (22.5 contact hours). Lab: 0.5 credit (30 contact hours).

Components: Laboratory, Lecture  
Attributes: Technical

DAH 121(3)  
Course ID: 000333  
Dental Sciences  
Examines oral histology and embryology, head and neck anatomy, and tooth morphology as applicable to the practice of dental assisting and dental hygiene. 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-ray radiation; properties and uses of x-ray; radiation hygiene; exposing, processing and mounting of intraoral and extraroral films; and identification of radiographic anatomic landmarks. Pre-requisite: Admission into the Integrated Dental Assisting or Dental Hygiene Program. Lecture: 1.5 credits (22.5 contact hours). Lab: 0.5 credits (30 contact hours).

Components: Laboratory, Lecture  
Attributes: Technical

DAH 235(1)  
Course ID: 000336  
Practice Management  
Examines legal, ethical, and managerial aspects of the dental practice. Pre-requisite: Dental Assisting: Minimum grade of "C" in DAH 101, DAH 121, DAH 135, DAH 124, DAH 125 and DAH 130; Dental Hygiene: Minimum grade of "C" in DHG 220 and DHG 226. Lecture: 1.0 credit (15 contact hours).

Components: Lecture  
Attributes: Technical

DAS Dental Assisting

DAS 125(6)  
Course ID: 015651  
Dental Assisting I  
Introduces the profession of dental assisting, history of dentistry, chairside dental assisting, dental equipment, operative dentistry and dental specialties. Emphasizes essential dental assisting skills to prepare the student for clinical setting. Pre-requisite: Admission into the Dental Assisting Integrated program. Lecture: 2.0 (30 contact hours). Lab: 4.0 credits (120 contact hours).

Components: Laboratory, Lecture  
Attributes: Technical

DAS 130(2)  
Course ID: 006812  
Seminar I  
Examines 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: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture  
Attributes: Technical

DAS 230(1)  
Course ID: 006813  
Seminar II  
Provides the opportunity to discuss clinical experiences and prepare to sit for the Dental Assisting National Board (DANB). Provides students the opportunity to further develop professional growth plan. Pre-requisite: Minimum grade of "C" in DAH 101, DAH 121, DAH 124, DAH 135, 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 in relation to health and disease prevention. 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 hour (15 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Lecture, Laboratory  
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 clinical dentistry. Consists of observation and practice in a dental office setting with emphasis on chairside areas. Pre-requisite: Dental Assisting Minimum grade of C in DAH 101, DAH 121, DAH 124, DAH 135, DAH 125, and DAH 130. Practicum: 5.0 credits (320 contact hours).

Components: Practicum  
Attributes: Technical

DGD Digital Game and Simulation Design

DGD 131(3)  
Course ID: 007066  
3D Texturing and Lighting I  
Introduces the techniques for creating textures and lighting for 3D games and simulations. Pre-requisite: Computer literacy course or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture  
Attributes: Technical

DGD 132(3)  
Course ID: 005474  
Introduction to 3D Graphics  
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: 3.0 credits (45 contact hours).

Components: Lecture  
Attributes: Technical

DGD 231(3)  
Course ID: 007067  
3D Texturing and Lighting II  
Introduces advanced texturing and lighting techniques to enhance depth perception and realism within 3D environments. Pre-requisite: DGD 131 and DGD 132; or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture  
Attributes: Technical

DGD 233(3)  
Course ID: 007068  
3D Character Rigging  
Examines techniques for rigging a 3D character in a skeleton with bone structures that can be manipulated to produce a realistic movement. Pre-requisite: DGD 232 or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture  
Attributes: Technical

DGD 234(3)  
Course ID: 005475  
3D Animation  
Examines basic techniques to animate 3D characters and objects using constraints, manipulation, pivot point rotation, motion scripting, and motion flow. Pre-requisite: DGD 132 or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture  
Attributes: Technical

DGD 235(3)  
Course ID: 007069  
3D Special Effects  
Examines digital 3D special effects including the four fundamental elements of air, fire, earth, and water. Pre-requisite: DGD 231 or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture  
Attributes: Technical

DGD 236(3)  
Course ID: 007070  
Game Engines I  
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: 3.0 credits (45 contact hours).

Components: Lecture  
Attributes: Technical

DGD 237(3)  
Course ID: 007071  
Game Engines II  
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: 3.0 credits (45 contact hours).

Components: Lecture  
Attributes: Technical
DHG Dental Hygiene

DHG 120(3)  Course ID: 000337
Pre-Clinical Dental Hygiene
Stresses basic assessment and clinical skills, related theory, and professional role and responsibilities of the dental hygienist as a member of the dental health team. Pre-requisite: Admission into the Dental Hygiene Integrated Program. Lecture: 2.0 credit (30 contact hours); Lab: 1.0 credit (120 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DHG 130(3)  Course ID: 000338
Clinical Dental Hygiene I
Focuses on preparing the student to provide patient treatment that includes preventive and therapeutic procedures to maintain oral health and assist the patient in achieving oral health goals. Pre-requisite: Minimum grade of C in DAH 101, DAH 121, DAH 124, DAH 135, and DHG 120. Lecture: 1.5 credits (22.5 contact hours); Lab: 0.5 credits (60 contact hours). Clinical: 1.0 credit (120 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Technical

DHG 132(2)  Course ID: 004331
Pharmacology
Examines the disciplines of pharmacology and therapeutics as related to dental hygiene. Pre-requisite: Minimum grade of C in DAH 101, DAH 121, DAH 124, DAH 135, and DHG 120. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

DHG 134(2)  Course ID: 006811
Dental Nutrition
Presents basic principles of nutrition with emphasis on nutritional counseling in relationship to dental health, determination of patient nutritional status, and application to oral health and effects of nutritional deficiencies. Pre-requisite: Minimum grade of C in DAH 101, DAH 121, DAH 124, DAH 135, and DHG 120. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

DHG 136(1)  Course ID: 000340
Periodontology
Focuses on the clinical, histological, and radiographic differences between healthy and unhealthy periodontal tissues. Pre-requisite: Minimum grade of C in DAH 101, DAH 121, DAH 124, DAH 135, and DHG 120. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical

DHG 220(4)  Course ID: 000341
Clinical Dental Hygiene II
Focuses on providing comprehensive dental hygiene care in a clinical setting while emphasizing the treatment of periodontal and special needs patients. Pre-requisite: Minimum grade of C in DAH 131, DHG 130, DHG 132, DHG 134, and DHG 136. Lecture: 2.0 credits (30 contact hours). Clinical: 2.0 credits (240 contact hours).
Components: Clinical, Lecture
Attributes: Technical

DHG 221(2)  Course ID: 004778
Local Anesthesia and Nitrous Oxide Sedation
Presents a conceptual framework and clinical skills necessary to administer local dental anesthetics and nitrous oxide sedation in accordance with state dental practice acts. Pre-requisite: Minimum grade of C in DAH 131, DHG 130, DHG 132, DHG 134, DHG 136, and current enrollment in the Dental Hygiene Integrated Program. Lecture: 1.0 credit (15 contact hours); Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DHG 226(2)  Course ID: 000342
Advanced Periodontology
Focuses on the role of the dental hygienist in the prevention, diagnosis and treatment of periodontal disease. Pre-requisite: Minimum grade of C in DHG 130, DHG 132, DHG 134, and DHG 136. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

DHG 230(3)  Course ID: 000343
Clinical Dental Hygiene III
Focuses on mastery of dental hygiene clinical skills for patient care and preparation for written and clinical board examinations. 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. BIO 137 and BIO 139 or equivalent, with a grade of "C" or better. Lecture: 2.5 credits (37.5 contact hours); Clinical: 1.5 hours (180 contact hours).
Components: Clinical, Lecture
Attributes: Technical

DHP 121(3)  Course ID: 004860
Oral Biology I
Includes oral histology and embryology, regional head and neck anatomy, and dental anatomy applicable to the practice of dental hygiene. Pre-requisite: Acceptance into the Dental Hygiene Program; Computer Literacy or equivalent; and CPR certification. BIO 137 and BIO 139 or equivalent, with a grade of "C" or better. Lecture: 2.0 credits (30 contact hours); Laboratory: 1.0 credit (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DHP 122(2)  Course ID: 006832
Dental Nutrition
Presents basic principles of nutrition with emphasis on nutritional counseling in relationship to dental health, determination of patient nutritional status, and application to oral health and effects of nutritional deficiencies. Pre-requisite: Acceptance into the Dental Hygiene Program; Computer Literacy or equivalent; and CPR certification. BIO 137 and BIO 139 or equivalent, with a grade of "C" or better. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

DHP 130(3)  Course ID: 004861
Dental Hygiene II
Continues DHP 120 which prepares the student to provide treatment that includes preventative and therapeutic procedures to promote and maintain oral health and assist the patient in achieving oral health goals. Pre-requisite: [DHP 120 and DHP 121 and DHP 122 and (BIO 226 or equivalent)] with a grade of "C" or better. Lecture: 2.0 credits (30 contact hours). Clinical: 1.0 credit (120 contact hours).
Components: Clinical, Lecture
Attributes: Technical

DHP 131(5)  Course ID: 004862
Oral Biology II
Covers the disciplines of general pathology, oral pathology, pharmacology, and therapeutics as related to dental hygiene care. Pre-requisite: [DHP 120 and DHP 121 and DHP 122 and (BIO 226 or equivalent)] with a grade of "C" or better. Lecture: 4.5 credits (67.5 contact hours); Lab: 0.5 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DHP 135(3)  Course ID: 004863
Dental Radiography
Presents the theory and clinical practice of oral radiographic methods. Includes history and development of x-radiation; properties and uses of x-radiation; radiation hygiene; exposing, processing and mounting intraoral and extraoral radiographs; identification of radiographic anatomical landmarks; and advancements in computer imaging technology in dental radiology. Pre-requisite: Acceptance into the Dental Hygiene Program; Computer Literacy or equivalent; and CPR certification. BIO 137 and BIO 139 or equivalent, with a grade of "C" or better. Lecture: 2.5 credits (37.5 contact hours); Laboratory: 0.5 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DHP 136(2)  Course ID: 004864
Periodontics I
Focuses on the clinical, histological and radiographic differences between healthy and unhealthy periodontal tissues. Includes etiology, risk factor assessment, pathogenesis and classification of periodontal diseases. Pre-requisite: [DHP 120 and DHP 121 and DHP 122 and (BIO 226 or equivalent)] with a grade of "C" or better. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

DHP 220(3)  Course ID: 004865
Dental Hygiene III
Emphasizes the continued treatment of clinical patients. Prepares student for treatment and management of dental patients with special needs and emphasizes appropriate changes in dental treatment in response to a patient’s medical condition. Pre-requisite: (DHP 130 and DHP 131 and DHP 135 and DHP 136) all with a grade of "C" or better. Clinical: 2.0 credits (240 contact hours); Discussion: 1.0 credit (15 contact hours).
Components: Clinical, Discussion
Attributes: Technical

DHP 222(3)  Course ID: 005040
Special Needs Patients
Focuses on the specific oral health care needs of persons with a variety of medical, disabling or mental conditions and provides for discussion of innovative approaches to serving populations with special oral health care needs. Emphasizes special pharmacological considerations and treatment modifications. Pre-requisite: (DHP 130 and DHP 131 and DHP 135 and DHP 136) with a grade of "C" or better. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DHP 224(2)  Course ID: 004866
Dental Materials
Introduces the physical and chemical properties of dental materials and their application. Pre-requisite: (DHP 130 and DHP 131 and DHP 135 and DHP 136) with a grade of "C" or better. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical
DIT 110(2) Course ID: 001274
Introduction To Diesel Engines
Covers fundamental concepts of the operation of two-and four-stroke diesel and gasoline engines. Includes basic engine components and their functions, engine performance terminology, two- and four-stroke operation, combustion principles, and engine disassembly with basic hand tools. 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. The lab includes the hands-on concepts covered in DIT 110. Includes the hands-on concepts covered in DIT 110. Includes the hands-on concepts covered in DIT 110. Includes the hands-on concepts covered in DIT 110. Includes the hands-on concepts covered in DIT 110. Includes the hands-on concepts covered in DIT 110. Includes the hands-on concepts covered in DIT 110. Includes the hands-on concepts covered in DIT 110. Includes the hands-on concepts covered in DIT 110. Includes the hands-on concepts covered in DIT 110. Includes the hands-on concepts covered in DIT 110. Includes the hands-on concepts covered in DIT 110. Includes the hands-on concepts covered in DIT 110. Includes the hands-on concepts covered in DIT 110. Includes the hands-on concepts covered in DIT 110. Includes the hands-on concepts covered in DIT 110. Includes the hands-on concepts covered in DIT 110. Includes the hands-on concepts covered in DIT 110. 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**Course Descriptions**

- **DIT 161(2) Steering and Suspension Lab**: Provides for practical application of concepts taught in DIT 180. 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).
- **DIT 180(3) Brakes**: Covers the operational theory and application of air brakes, hydraulic brakes and anti-lock brake systems. Covers the function and repair of disc brakes and drums brakes. Co-requisite: DIT 181. Lecture: 3 credits (45 contact hours).
- **DIT 181(2) Brakes Lab**: Provides hands-on activities related to the concepts covered in DIT 180. Includes the inspection, diagnosis and performing repairs on air powered and hydraulic powered braking systems found on medium and heavy duty trucks. Co-requisite: DIT 180. Laboratory: 2 credits (90 contact hours).
- **DIT 190(3) Electrical Systems for Diesel Equipment**: Covers the operation and diagnosis of the truck electrical system including the battery, starter, alternator, lighting and accessories. Co-requisite: DIT 191. Lecture: 3 credits (45 contact hours).
- **DIT 191(2) Electrical Systems for Diesel Equipment**: Provides hands-on activities related to the concepts covered in DIT 190. Covers inspection, diagnosis and performing repairs on batteries, starters, alternators and accessory systems found on medium and heavy duty trucks. Co-requisite: DIT 190. Laboratory: 2 credits (90 contact hours).
- **DIT 198(1) Instructor Consent Required Practicum**: The Practicum provides supervised on-the-job work experience related to the student's education objectives. Students participating in the Practicum do not receive compensation. Pre-requisite: Permission of Instructor. Co-op: 1 credit (75 contact hours).
- **DIT 199(1) Cooperative Education**: The cooperative education program provides supervised on-the-job work experience related to the students education objectives. Students participating in the Practicum do not receive compensation. Pre-requisite: Permission of Instructor. Practicum: 2 credits (150 contact hours).
- **DLC 100(3) Digital Literacy**: Introduces students to main components of digital literacy including computer fundamentals, key applications, and living online. This course closely mirrors the KCTCS Digital Literacy Standards. Lecture: 3 credits (45 contact hours).
- **DLC 1001(1) Computer Fundamentals**: Introduces students to main components of digital literacy regarding Computer Fundamentals. Lecture: 1 credit (15 contact hours).
- **DLC 1002(1) Key Applications**: Introduces students to main components of digital literacy regarding Key Applications. Lecture: 1 credit (15 contact hours).
- **DLT 101(2) Dental Morphology**: The anatomical characteristics and dental terminology of the permanent human dentition are detailed. Other topics include dento-ossous structures, oral musculature, and the development of teeth. Waxing exercises of selected teeth are performed in the laboratory as a means of understanding tooth form and the development of manual dexterity. Pre-requisite: Admission into the DLT Program or consent of instructor. Lecture: 1 credit (15 contact hours); Laboratory: 1 credit (45 contact hours).
- **DLT 111(2) Dental Materials I**: The major content of this course includes an introduction to the study of dental materials including basic concepts in chemistry. Emphasis is placed on the chemical and physical properties of gypsum, resin, and wax used in dentistry. Basic manipulation of these materials is included in order to prepare the student for future use in the dental laboratory. Pre-requisite: Admission into the DLT Program or consent of instructor. Lecture: 2 credits (30 contact hours).
- **DLT 112(2) Dental Materials II**: This course emphasizes the metallurgy of dental alloys including the mechanism of crystallization, strain hardening and the chemical process of corrosion. Materials associated with fabricating metal prostheses are studied and include impression materials, cast alloys and wrought alloys. Hazard and infection control procedures in the dental laboratory are presented as well as basic study of applicable physics and unit conversion. Pre-requisite: DLT 111 or consent of instructor. Lecture: 2 credits (30 contact hours).
- **DLT 121(2) Complete Dentures I**: The basic principles of complete denture prosthodontics is presented including the fundamentals of arranging and contouring artificial dentures. Identification of oral landmarks and changes that occur in the edentulous patient are discussed. Emphasis is placed on identifying the purpose and use of custom trays, baseplates and occlusion rims. Laboratory procedures include fabricating custom trays, baseplates, occlusion rims, and a complete set of dentures. Pre-requisite: Admission into the DLT Program. Lecture: 1 credit (15 contact hours); Laboratory: 1 credit (45 contact hours).
- **DLT 122(2) Complete Dentures II**: Advanced principles of complete denture prosthodontics are presented including balanced, monoplane and linguinal occlusion. Emphasis is also placed on the considerations in the oral cavity that effect the success of removable prosthodontic treatment. Laboratory procedures include denture repairs, selective grinding and fabricating complete dentures. Pre-requisite: DLT 121. Lecture: 1 credit (15 contact hours); Laboratory: 1 credit (45 contact hours).
- **DLT 131(2) Removable Partial Dentures I**: The basic principles of removable partial dentures prosthodontics are presented. Emphasis is placed on the fabrication procedures and understanding of the basics of survey and design. Detailed information about the various major and minor connectors is discussed as well as learning the Kennedy Classification system. Laboratory procedures include fabricating two removable partial dentures including the attachment of artificial denture teeth. Pre-requisite: Admission into the DLT Program. Lecture: 1 credit (15 contact hours); Laboratory: 1 credit (45 contact hours).
- **DLT 132(2) Removable Partial Dentures II**: Advanced principles of removable partial dentures prosthodontics is presented with emphasis on design principles. Detailed information about direct retainers, indirect retainers, rests and bases is discussed. Laboratory procedures involve fabricating three removable partial dentures including the attachment of artificial denture teeth. Pre-requisite: Admission into the DLT Program. Lecture: 1 credit (15 contact hours); Laboratory: 1 credit (45 contact hours).
- **DLT 142(2) Occlusion**: Theories of occlusion; interarch and interarch relationships; the temporomandibular joint and its movements; articulators, interocclusal records, and face-bow transfer; occlusal schemes; and restorative considerations in occlusal therapy are discussed and/or put to practical application in this course. Pre-requisite: Admission into the Dental Laboratory Program. Lecture: 1 credit (15 contact hours); Laboratory: 1 credit (45 contact hours).
- **DLT 151(2) Fixed Prosthodontics I**: The basic principles of crown and bridge fixed prosthodontics are presented including the fabrication of both single and multi-unit full metal restorations. Emphasis is placed on preparing and evaluating working casts, waxing anatomical tooth patterns, springing, investing, burnout, casting, and polishing. Additional laboratory procedures include fabricating restorations on various types of articulators, developing functional occlusion, and soldering. Pre-requisite: Admission into the DLT Program. Lecture: 1 credit (15 contact hours); Laboratory: 1 credit (45 contact hours).
DMS 105(13) Course ID: 005941
Introduction to Cardiology
Provides an overview of anatomy and physiology and the electrophysiology of the cardiovascular system. Includes theory and application of the 12-lead electrocardiogram, holder monitor, and stress test. Covers cardiovascular pharmacology, medical terminology, medical law and ethics, and patient care. Includes Cardiac Catheterization lab, Vascular Sonography, and Respiratory Care. Pre-requisite: Admission to Cardiac Sonography Program. Lecture: 10.0 credits (150 contact hours). Clinical: 3.0 credits (150 contact hours). Components: Lecture Attributes: Technical

DMS 106(11) Course ID: 006260
OB/GYN Sonography
Covers the study of the clinical applications within the sonographic specialties of obstetrics, gynecology, female breast, and neurosonography. Includes related clinical symptoms and laboratory tests, pathophysiology of disease and anomalies, and normal/abnormal sonographic patterns. Includes basic scanning techniques and protocol. Pre-requisite: Minimum grade of “C” in (DMS 109 and DMS 113) or (DMS 111 and DMS 116). Clinical: 3.0 - 4.0 credits (180 - 240 contact hours). Components: Clinical Attributes: Technical
DMS 136(4)  Course ID: 006264
Vascular Clinical Education I
Includes observation and practice of all clinical duties performed in the vascular lab with basic instruction and scanning experience under the supervision of a credentialed Vascular Sonographer. Pre-requisite: DMS 117 with minimum "C" grade. Clinical: 4.0 credits (240 contact hours).
Components: Clinical
Attributes: Technical

DMS 145(12)  Course ID: 005942
Cardiac Sonography I
Covers the identification of structures and the correct technique to obtain images of the heart. Includes the fundamentals of ultrasound physics and instrumentation required to perform echocardiograms. Pre-requisite: Admission to Diagnostic Medical Sonography Program; Computer Literacy, Minimum grade of "C" in BIO 135 or (BIO 137 and BIO 139) and (PHY 151 or PHY 152 or PHY 171) and MAT 150. Lecture/Lab: 12.0 credits (225 contact hours).
Components: Lecture
Attributes: Technical

DMS 190(1)  Course ID: 005936
Online Physics Review
Includes a review of basic ultrasound physics, transducers, bioeffects, artifacts, quality assurance and principles of Doppler techniques. Pre-requisite: DMS 119 or 121 with minimum "C" grade or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical

DMS 201(1)  Course ID: 005937
Online Abdomen Sonography
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: 005938
Online OB/GYN Review
Provides a review of related clinical signs and symptoms, laboratory tests, and normal/abnormal sonographic patterns in preparation for the related Ob/Gyn registry. Pre-requisite: DMS 115 or DMS 116 with minimum "C" grade or Consent of Program Coordinator. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical

DMS 204(2)/Course ID: 008266  Department Consent Required
Online Vascular Review
Provides a review of vascular sonography to prepare the student for the ARDMS certification examination. Includes activities and quizzes related to cœrovascular, intracranial, peripheral veins, and abdominal vascular sonography. Pre-requisite: Consent of Program Coordinator. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

DMS 205(6)  Course ID: 005943
Cardiac Sonography II
Provides content related to the more advanced cardiovascular diseases. Includes how to correlate Doppler findings and measurements. Covers transesophageal echocardiography, stress echocardiography, Intensive Care Unit patient and Operative/Perioperative applications. Pre-requisite: (DMS 145 with a minimum "C" grade) or Consent of Program Coordinator. Lecture/Lab: 6.0 credits (270 contact hours).
Components: Lecture
Attributes: Technical

DMS 206(3)  Course ID: 006287
Online Vascular Sonography III
Covers the various test, miscellaneous conditions encountered in vascular sonography. Emphasizes the importance of quality measurements and safety practices. Pre-requisite: Admission to Diagnostic Medical Sonography Program; Computer Literacy; NAA 100 or equivalent; CPR certification. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DMS 215(6)  Course ID: 005944
Cardiac Sonography III
Covers the basic embryology of the heart, fetal and postnatal circulation, and basic types of congenital heart defects found in the adult. Includes how systemic disease affects the heart and basic clinical problem solving techniques used in echocardiography. Pre-requisite: DMS 205 with minimum "C" grade. Lecture/Lab: 6.0 credits (270 contact hours).
Components: Lecture

DMS 217(3)  Course ID: 006702
Basic Cardiac Ultrasound Technology
Provides review and practical application of ultrasound and Doppler physics; cardiac anatomy, physiology, and pathophysiology; cardiac imaging; 2D, M-mode, Spectral and Color Doppler; and exam protocols. Pre-requisite: Applicants must be RDMS credentialed or graduate of an accredited sonography program or consent of a sonography program coordinator. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DMS 230(5 - 8)  Course ID: 004396
Clinical Education II
Includes interaction in all clinical duties performed in all ultrasonography departments. Covers abdomen, superficial structures, non-cardiac chest, embryo/fetus, and the gravid and non-gravid pelvic structures with performance of basic and advanced competencies to be performed. Pre-requisite: Admission to Diagnostic Medical Sonography Program; Computer Literacy; Minimum grade of "C" in BIO 135 or (BIO 137 and BIO 139) and (PHY 151 or PHY 152 or PHY 171) and MAT 150. Clinical: 5.0 - 8.0 credits (300 - 480 contact hours).
Components: Clinical
Attributes: Technical

DMS 236(8)  Course ID: 006268
Vascular Clinical Education II
Includes experience in clinical applications of cerebrovascular, intracranial, peripheral arterial, peripheral venous, and abdominal vascular sonographic examinations. Requires the performance of competencies with the rate of progress dependent upon the student’s ability to comprehend and perform assignments. Pre-requisite: DMS 136 with minimum "C" grade. Clinical: 8.0 credits (480 contact hours).
Components: Clinical
Attributes: Technical

DMS 237(5)  Course ID: 006269
Vascular Clinical Education III
Provides a more active clinical role in assisting the practicing vascular Sonographer and performing sonographic duties under direct supervision. Requires the performance of competencies with the target of progress dependent upon the student’s ability to comprehend and perform assignments. Pre-requisite: Minimum "C" grade in DMS 136 and DMS 236. Clinical: 5.0 credits (300 contact hours).
Components: Clinical
Attributes: Technical

DMS 240(5 - 8)  Course ID: 004398
Clinical Education III
Continues the clinical experience by student assuming a supervisory role of a credentialed Vascular Sonographer. Pre-requisite: DMS 230 with Minimum "C" grade. Clinical: 5.0 - 8.0 credits (300 - 480 contact hours).
Components: Clinical
Attributes: Technical

DMS 245(6)  Course ID: 005945
Cardiac Sonography IV
Provides a comprehensive overview of program content with clinical applications. Pre-requisite: DMS 145 with minimum "C" grade. Pre-requisite Or Co-requisite: DMS 205 with minimum "C" grade. Course/Lab: 6.0 credits (270 contact hours).
Components: Lecture
Attributes: Technical

DMS 255(6)  Course ID: 005939
Vascular Technology
Presents normal/abnormal sectional anatomy, hemodynamics, patient assessment and diagnostic testing related to vascular technology. Includes applications of pathophysiologic basis, clinical signs and symptoms and typical findings related to the peripheral vascular system. Includes therapeutic interventions, intraoperative monitoring and the use of contrast agents. Covers vascular physics including blood flow characteristics and pressure/flow/velocity relationships. 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 260(6)  Course ID: 005940
Vascular Clinical Education
Provides clinical experience by student actively assisting and performing vascular procedures under direct supervision of a Vascular Technologist. Completes competencies including cerebrovascular, upper/lower venous/arterial extremity, and abdominal vasculature. Pre-requisite: DMS 255 with minimum "C" grade. Clinical: 6.0 credits (360 contact hours).
Components: Clinical
Attributes: Technical

DMS 280(3)  Course ID: 005335
Basic Vascular Technology
Provides review and practical application of vascular technology (Carotid Duplex Scanning and Peripheral Vascular Scanning) with an analysis of anatomy, physics, hemodynamics, exam protocols, and pathology. Pre-requisite: Applicant must be RDMS credentialed or graduate of an accredited sonography program or Consent of Program Coordinator. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DPT 100(3)  Course ID: 015703
Introduction to 3D Printing Technology
Provides an introduction to the world of Three Dimensional printing (3DP) and its applications in conjunction with computer technology. Introduces topics including computer hardware and software, 3D printing technology, file management, the Internet, e-mail, the social web, sustainability, security, and computer and intellectual property ethics. Presents basic use of application programming, systems, and utility software. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

DPT Digital Printing

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 Economics
ECO 150(3) Course ID: 006703
Introduction to Global Economics
Covers the causes and issues of global economic interdependence, with particular emphasis on cross-cultural implications of globalization. Includes global economic issues such as economic development, global economic governance, changing demographics, health care, world poverty, changing patterns of food production, global energy use, and the economic consequences of global environmental issues. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science

ECO 201(3) Course ID: 000447
Principles of Microeconomics
Covers the allocation of scarce resources from the viewpoint of individual economic units. Topics include supply and demand, elasticity, costs, and markets. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, Course Also Offered in Modules

ECO 202(3) Course ID: 000449
Principles of Macroeconomics
Covers how society’s needs are satisfied with the limited resources available. Includes issues such as inflation, unemployment, economic growth, globalization, and fiscal and monetary policy. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, Course Also Offered in Modules

ECO 1011(1) Course ID: 005925
How Markets Work
Covers the foundations of contemporary economic issues emphasizing scarcity, choice, benefits, costs, and supply and demand. Lecture: 1 credit (15 contact hours).
Components: Lecture

ECO 1012(1) Course ID: 005926
Markets and Macroeconomic Goals
Covers contemporary economic issues such as price indices, efficiency, equity, poverty and welfare. Pre-requisite: ECO 1011. Lecture: 1 credit (15 contact hours).
Components: Lecture

ECO 1013(1) Course ID: 005927
Markets and Regulation
Covers contemporary economic issues such as externalities, market failure, globalization, and environmental pollution. Pre-requisite: ECO 1012. Lecture: 1 credit (15 contact hours).
Components: Lecture

ECO 2014(0.75) Course ID: 005931
Firm Behavior and Market Structures
Covers the allocation of scarce resources from the viewpoint of individual economic units. Includes competitive and non-competitive markets. Pre-requisite: ECO 2013. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

ECO 2021(0.75) Course ID: 005932
Measuring Macroeconomic Outcomes
Covers how society’s needs are satisfied with the limited resources available. Includes national income accounting, inflation, and unemployment. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

ECO 2022(0.75) Course ID: 005933
Basic Macroeconomic Relationships
Covers how society’s needs are satisfied with the limited resources available. Topics include the aggregate expenditure model, aggregate supply and aggregate demand. Pre-requisite: ECO 2021. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

ECO 2023(0.75) Course ID: 005934
Stabilization Tools
Covers how society’s needs are satisfied with the limited resources available. Includes economic growth, fiscal policy, and monetary policy. Pre-requisite: ECO 2022. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

ECO 2024(0.75) Course ID: 005935
The International Economy
Covers how society’s needs are satisfied with the limited resources available. Includes international trade and international finance. Pre-requisite: ECO 2023. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

EDM Education

EDM 270(3) Course ID: 004011
Teaching and Learning in the Middle Grades
Provides students in middle school education with knowledge and experience critical for instruction of middle school students and management of middle school classrooms. Requires field experience of a minimum of 15 clock hours in instructor-approved education agencies. Pre-requisite: EDP 202 and EDU 201. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EDP Educational and Counseling Psychology

EDP 202(3) Course ID: 000452
Human Development and Learning
Presents theories and concepts of human development, learning, and motivation and applies these 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: EDP 202 and 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 paraprofessional and the classroom teacher. Covers legal and ethical issues that might be encountered in the classroom, instructional support strategies that might be implemented by paraprofessionals, 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. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EDU 150(3) Course ID: 004447
Practical Experiences for the Paraeducator
Provides the capstone experience for the paraeducator certificate. Pre-requisite: (EDU 110 and EDU 120 and EDU 130 and EDU 140) or Consent of Coordinator. Lecture: 1.0 credit (15 contact hours); Practicum/Co-op: 2.0 credits (150 contact hours).
Components: Co-Op, Lecture, Practicum
Attributes: Technical

EDU 201(3) Course ID: 000451
Introduction to American Education
Presents an introduction to teaching including teaching as a profession, major educational philosophies, social reform, trends and issues in education, curriculum and instruction. Requires a minimum of 15 clock hours of field observation in an approved educational setting. Pre-requisite: ENG 101 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EDU 204(3) Course ID: 004547
Technology In the Classroom
Provides the student with a basic skill set to utilize technology in instruction and instructional management. Explores the methods of using computing fundamentals, key technology applications, and the digital 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 102. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical
EDU 280(3) Course ID: 004446
Education Externship/Co-Op
 Provides a capstone experience for the AAS degree in Education, designed to integrate program competencies and curriculum to create a cumulative portfolio to demonstrate professional abilities. Requires 150 hours of field work. Pre-requisite: All program courses or Consent of Coordinator. Lecture: 1 credit (15 contact hours); Practicum/Co-op: 2 credits (150 contact hours).
Components: Co-op, Lecture, Practicum Attributes: Technical
EDU 299(3) Course ID: 004445
Instructor Consent Required
Selected Topics in Education
Addresses various education topics, issues and trends. Topics may vary from semester to semester at the discretion of the instructor; course may be repeated with different topics to a maximum of six credit hours. Pre-requisite: Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical
EE Electrical Engineering
EE 211(4) Course ID: 000454
Circuits I
Fundamental laws, principles and analysis techniques for DC and AC linear circuits whose elements consist of passive and active components used in modern engineering practice including the determination of steady state and transient responses. Pre-requisite: MA 114. Pre-requisite or concurrent: PHY 232, PHY 242. 4 credits (60 contact hours)
Components: Lecture Attributes: Technical
EES Electronics
EES 101(2) Course ID: 001332
Basic Electronics
Provides the foundation for further study in technologies related to electricity or electronics. Addresses the following areas: basic electrical components and their properties, quantities, and units of measurement; calculation of voltage, current, resistance, energy, and power using Ohms Law; construction and analysis of series, parallel, and series/parallel circuits; principles of magnetism and electromagnetism; alternating current and voltage; reactive components; construction and analysis of RC, RL, and RLC circuits; sinusoidal and other waveforms. Lecture/Lab: 2.0 credits (60 contact hours).
Components: Lecture Attributes: Technical
EET Electronics Technology
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 calculation, measurement, and troubleshooting of various AC and DC circuits by way of laboratory exercises and classroom lecture. Pre-requisite: MAT 065 or equivalent placement level or consent of Instructor. Lecture/Lab: 5.0 credits (45-60 contact hours).
Components: Lecture Attributes: Technical
EET 127(1) Course ID: 015853
Electrical Technology Capstone
Serves as the capstone course for the Electrical Technology degree program and all of its concentrations. Integrates prior learning outcomes into a single integrated learning experience. Includes an exit exam that all program graduates must take. Pre-requisite: Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture Attributes: Technical
EET 150(2) Course ID: 001355
Transformers
Focuses on the operation, installation and application of AC single-phase and three-phase transformers. Testing and maintaining transformer equipment are emphasized, with safety integrated as a core component of the study. Pre-requisite:[EEL 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. Testing and maintaining transformer equipment is emphasized, with safety integrated as a core component of the study. Pre-requisite[EEL 110 or EET 119] with a minimum grade of "C" or consent of Electrical Technology program advisor(s). Co-requisite: EET 150. Lab: 1.0 credit (30 contact hours).
Components: Laboratory Attributes: Technical
EET 154(2) Course ID: 001358
Electrical Construction I
Involves the study of materials and procedures used in construction wiring. Co-requisite: EET 155. Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Technical
EET 155(2) Course ID: 001359
Electrical Construction I Lab
Designed to give hands-on experiences with electrical materials and equipment in construction wiring. Co-requisite: EET 154. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical
EET 198(2) Course ID: 001361
Instructor Consent Required
Practicum
The practicum provides supervised on-the-job work experience related to the student’s educational objectives. Students participating in the Practicum Education program do not receive compensation for their work. Pre-requisite: Consent of Instructor. Practicum: 2 credits (150 contact hours).
Components: Practicum Attributes: Technical
EET 205(4) Course ID: 001410
National Electrical Code
Emphasizes the importance of the National Electrical Code as it applies to electrical installations: electrical safety issues, prevention of fire due to the use of electrical energy, prevention of loss of life and property from the hazards that might arise from the use of electrical energy, and proper selection of electrical equipment for hazardous and non-hazardous environments. A learning resource in the preparation for electrical licensing examinations. Pre-requisite: [EET 154 and EET 155 and EET 252 and EET 253] or (EET 254 and EET 255) with minimum grade of C] or consent of Electrical Technology program advisor(s). Lecture: 4 credits (60 contact hours).
Components: Lecture Attributes: Technical
EET 252(2) Course ID: 001411
Electrical Construction II
Expands the knowledge and skills needed to work in commercial and industrial construction wiring. Pre-requisite: Consent of Instructor or EET 154. Co-requisite: EET 253. 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
This course involves the study of materials and procedures and expands the knowledge and skills needed to work in commercial and industrial construction wiring. Co-requisite: EET 255. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical
EET 255(4) Course ID: 001414
Electrical Construction Lab
Designed to give hands-on experiences with electrical materials and equipment in commercial and industrial construction wiring. Co-requisite: EET 254. Laboratory: 4 credits (120 contact hours).
Components: Laboratory Attributes: Technical
EET 264(2) 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. Pre-requisite: [ENG 110 and ENGT 114] with a minimum grade of C] or consent of Electrical Technology program advisor(s). Co-requisite: EET 265. Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Technical
EET 265(2) Course ID: 001420
Rotating Machinery Lab
Focuses on the principles of operation, application and maintenance of single-phase and three-phase AC motors and AC alternators, DC motors, DC generators. A study of and compliance with the National Electrical Code standards. Pre-requisite: [EEL 110 or EET 119] with a minimum grade of "C" or consent of Electrical Technology program advisor(s). Co-requisite: EET 264. Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory Attributes: Technical

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Tasks include sketching, installing and troubleshooting effect sensors, proximity detectors and photo detectors. Electrical Motor Controls II

This course addresses the diversity of control devices and applications used in industry today. Safety and electrical lockouts are also included. Pre-requisite: [EET 110 or EET 119] with a minimum grade of “C” or consent of Electrical Technology program advisor(s). Co-requisite: EET 269. Lab: 3.0 credits (90 contact hours). Components: Lecture Attributes: Technical

R, EF, EFM, EET 268(2) Course ID: 004627
Programmable Logic Controllers II Lab
Provides hands on lab applications dealing with sequencers, shift registers, networks, communication software, human to machine interfaces, and troubleshooting techniques used with programmable logic controllers. Pre-requisite: (EET 267 and EET 277) with a minimum grade of C] or consent of Electrical Technology program advisor(s). Co-requisite: EET 287. Lecture: 2 credits (60 contact hours). Components: Laboratory Attributes: Technical

EET 270(2) Course ID: 001428
Electrical Motor Controls II Lab
This course provides hands-on experience in advanced studies in electrical controls used in industry including three-phase motor control and variable speed control using solid state devices and programmable controls. Pre-requisite: [EET 110 or EET 119] with a minimum grade of “C” or consent of Electrical Technology program advisor(s). Co-requisite: EET 277. Laboratory: 2.0 credits (45 contact hours). Components: Laboratory Attributes: Technical

EET 271(2) Course ID: 001426
Electrical Motor Controls I Lab
Provides practical experience in the use of control devices and their applications in industry today. Safety and electrical lockouts are included. Pre-requisite: [EET 110 or EET 119] with a minimum grade of “C” or consent of Electrical Technology program advisor(s). Co-requisite: EET 271. Lab: 2.0 credits (60 contact hours). Components: Laboratory 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. A study of and compliance with the current National Electric Code standards will insure safe installation methods. Pre-requisite: [EET 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 267(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. Pre-requisite: [EEL 110 and EEL 114] with a minimum grade of C] or consent of Electrical Technology program advisor(s). Co-requisite: EET 267. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Technical

EET 269(4) Course ID: 001424
Instructor Consent Required
Rotating Machinery and Motor Controls I Lab
Provides practical experience in the use of control devices and their applications in industry today. Provides experience in the construction, operation and maintenance of AC motors and alternators, and DC motors and generators. Safety and electrical lockouts are included. Pre-requisite: [EEL 110 or EEL 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 277(2) Course ID: 001432
Programmable Logic Controllers Lab
Provides practical applications of programmable logic controllers including installation, logic fundamentals, and numbering systems; basic programming of inputs, outputs, timers, and counters, comparators, basic data manipulation, and safety circuits of industrial PLCs. Pre-requisite: [EET 110 or EET 119] with a minimum grade of “C” and [EET 270 and EET 272] or EET 268 or EET 274 with a minimum grade of “C” or consent of Electrical Technology program advisor(s). Co-requisite: EET 277. Lecture: 2.0 credits (30 contact hours).

Components: Laboratory Attributes: Technical

EET 278(1) Course ID: 001435
Instructor Consent Required
Special Problems I
A course designed for the student who has demonstrated specific special needs. Pre-requisite: Permission of Instructor. Laboratory: 2 credits (45 contact hours).

Components: Laboratory Attributes: Technical

EET 283(2) Course ID: 001436
Instructor Consent Required
Special Problems II
A course designed for the student who has demonstrated 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 286(2) Course ID: 004627
Programmable Logic Controllers II
Focuses on sequencer instructions, shift registers, process control instructions, networking, communications, human to machine interfaces, and troubleshooting techniques used with programmable logic controllers. Pre-requisite: (EET 276 and EET 277) with a minimum grade of C] or consent of Electrical Technology program advisor(s). Co-requisite: EET 286. Lecture: 2 credits (60 contact hours). Components: Laboratory Attributes: Technical

EET 298(1 - 8) Course ID: 001438
Practicum
The Practicum provides supervised on-the-job work experience related to the student’s educational objectives. Students participating in the Practicum do not receive compensation. (This course may be taken for 1 - 8 credits)

Components: Practicum Attributes: Technical

EET 299(1 - 8) Course ID: 001439
Instructor Consent Required
Cooperative Education Program
Co-op provides supervised on-the-job work experience related to the student’s educational objectives. Students participating in the Cooperative Education program receive compensation for their work. (This course may be taken for 1 - 8 credits) Pre-requisite: Consent of Instructor

Components: Co-Op Attributes: Technical

EFM 100(3) Course ID: 001440
Personal Financial Management
Successful completion of this course will result in an understanding of the role of the U.S. in a global economy and how an individual can function successfully in the U.S. economic system. Students will explore 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
EGY 120(4) Course ID: 006821
Outside Plant Communications
Introduces students to fiber optic communication systems and up-to-date fiber techniques including how to design, install, test and maintain fiber optic single mode networks. Emphasizes Single Mode fiber optic installation with the associated international standards, theory, and practices. Prepares the student to work with fiber optic splicing, testing and troubleshooting equipment that is found in the workplace. Pre-requisite: (ELT 110 and ETT 110) or (electrical experience and consent of instructor). Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

EGY 170(4) Course ID: 006822
Energy Utility Technologies
Introduces students to the technologies used in energy utility companies, including line maintenance, underground operations, substations and switchyard and transmission operations. Gives students the opportunity to climb a utility pole and conduct basic maneuvers. Addresses types of underground systems, substation and switchyard equipment and transmission structures. Emphasizes electrical, underground, line maintenance and transmission safety. Pre-requisite: (ELT 110 and EET 150 and EET 151) or (electrical experience and consent of instructor). Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

EGY 220(4) Course ID: 006823
Energy Efficiency Electrical Controls
Designed for Electrical Technology students and Apprentice, Journeyman, Master, and Contractor Electricians as a foundation into the studies of green technology relating to electrical energy. Focuses on the assessment 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 systems as part of an energy management system. 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

ELT 204(4) Course ID: 006825
Energy Efficiency and Analysis
Discusses the basic principles of how energy flows into and out of a residential building, using the “House as a System” approach. Develops the skills needed to perform a home energy audit. Gives students hands-on experiences with a blower door, thermal imaging camera as well as other auditing tools. Pre-requisite: Consent of instructor. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

EGY 250(4) Course ID: 006826
Wind/ Turbine Technologies
Introduces the theory and practices of wind power and how it is used and connected as a renewable energy source for the home, farm and business. Pre-requisite: ELT110 or consent of instructor. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

ELT 102(2) Course ID: 000526
Blueprint Reading
A comprehensive study of current drafting standards and blueprint reading techniques are included. Topics include standard lines and symbols, sketching techniques, orthographic projection, auxiliary views, detail and assembly drawings, dimensions, tolerances, sectional views, title block information, machinery, specifications, and specialized forms of engineering drawings. Lecture: 2.0 (30 contact hours).
Components: Lecture Course Equivalents: BRX 120 Attributes: Technical

ELT 103(3) Course ID: 005443
Introduction to Engineering
Provides an introduction to the engineering profession, engineering disciplines, and technology. Emphasizes a problem-solving approach, engineering design process, and team projects. Includes an introduction to engineering graphics. Intended for students of all majors. Pre-requisite or Co-requisite: Current Placement Scores for College Level Quantitative Reasoning or Consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

ELT 105(3) Course ID: 005581
Computer Maintenance Essentials
Introduces basic computer hardware and operating systems, covering skills such as installing, building, upgrading, repairing, configuring, troubleshooting, optimizing, diagnosing and preventive maintenance, with additional elements of soft skills and security. Emphasizes objectives that map closely to the CompTIA A+ Essentials national examination that validates the basic skills needed by any entry-level computer service technician. Pre-requisite: Computer literacy or Consent of Instructor. Lecture: 2.0 credits (30 contact hours), Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

ELT 106(2) Course ID: 000529
Mechanical Engineering Graphics
Includes basic technical sketching and working drawings as applied to mechanical engineering. Students will create or analyze multi-view drawings, symbols, schematics, and sketches typical of mechanical graphics drawings. Lab: 2.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

ELT 107(4) Course ID: 000533
Computer Applications for Technicians
Introduces computer applications commonly used in technical occupations. Covers circuit analysis, computational, analytical, and other software packages. Lecture: 1.0 credit (15 contact hours). Lab: 3 credits (90 contact hours).
Components: Laboratory, Lecture Attributes: Course Also Offered in Modules, Technical

ELT 110(3) 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 111(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/seals, bearings, mechanical fasteners, pipe fittings, pumps, and valves. Co-requisite: ELT 124. Lecture: 3.0 credit (45 contact hours).
Components: Lecture Attributes: Technical

ELT 124(1) Course ID: 000578
Mechanical Power Transmission Systems Lab
Introduces mechanical systems and devices common to the Millwright and Industrial Maintenance trades. Includes topics of belt drives, gear drives, chain drives, couplings, packings and seals, bearings, mechanical fasteners, pipe fittings, pumps, and valves. Co-requisite: ELT 122. Lab: 1.0 credit (30 contact hours).
Components: Laboratory Attributes: Technical

ELT 201(4) Course ID: 000603
Statics and Strength of Materials
Introduces static equilibrium involving forces, moments, couples, and equivalent systems. Explores stresses, strains and deflections associated with trusses, frames, beams, columns, and joints. These devices are subjected to various loadings and environments, and are made of standard construction materials. Pre-requisite: (MAT 150 and MAT 155 or MAT 110) or consent of instructor. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical
ELT 210(4) Course ID: 004639

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 222(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 223(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

ELT 224(3) Course ID: 004648

Instructor Consent Required
Basic Telecommunications Installation and Maintenance
Provides an overview of concepts needed to complete the duties of a telecommunications service technician and provide the foundational basic skills and knowledge required to effectively perform the installation and maintenance job duties and functions. Introduces fiber optic transmissions and cable repair. Pre-requisite: Consent of Instructor. Lecture: 1.0 credit (15 contact hours), Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ELT 232(3) Course ID: 006623

Computer Software Maintenance
Includes maintenance of the personal computer with an emphasis on installation, upgrading, and configuration of the operating system. Covers memory management, boot sequence, printing subsystem, application software and networking with troubleshooting as a main focal point including viruses. When combined with ELT 234, this course will help prepare students to take CompTIA A+ certification tests. Pre-requisite: (Computer literacy course or demonstrate competency) or consent of instructor. Lecture: 2.0 credits (30 contact hours), Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ELT 234(3) Course ID: 006521

Computer Hardware Maintenance
Covers maintenance of the personal computer with an emphasis on installation, upgrading, and configuration of computer hardware. Covers network and Internet access, internal addressing, architecture, interrupts complete PC construction and basic troubleshooting. When combined with ELT 232, this course will help prepare students to take CompTIA A+ certification tests. Pre-requisite: (Computer literacy course or demonstrate competency) or consent of instructor. Lecture: 2.0 credits (30 contact hours), Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ELT 240(6) Course ID: 000649

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

ELT 290(1 - 4) Course ID: 000742

Selected Topics in Engineering Technology: (Topic)
Offers selected topics in engineering technology, due to rapidly changing technology or in response to local needs. Includes various topics semester to semester at the discretion of the instructor. Course may be repeated with different topics to a maximum of eight credit hours. Pre-requisite: Consent of Instructor. Lecture: 1.0 - 2.0 credits (15 - 30 contact hours). Laboratory: 1.0 - 2.0 (30-60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ELT 295(1 - 2) Course ID: 000746

Instructor Consent Required
Independent Problems
Provides an objective for independent study for engineering and electronics technology students using a problem or special project approved by the instructor. This course may be repeated twice or to a maximum of four credit hours. Pre-requisite: Consent of Instructor. Lecture: 1.0 - 2.0 credits (15 - 30 contact hours). Laboratory: 1.0 - 2.0 (30-60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ELT 1101(1) Course ID: 005638

Basic Electricity
Introduces basic DC circuits, specifically safety, basic test equipment, electrical resistance and Ohm’s law. Pre-requisite: (MAT 065 or equivalent placement level) or Consent of Instructor. Lecture: 0.6 credits (9 contact hours), Lab: 0.4 credits (12 contact hours).
Components: Laboratory, Lecture

ELT 1102(1) Course ID: 005639

Series and Parallel Circuits
Introduces basic DC circuits, specifically series and parallel circuits. Emphasizes design, construction, and troubleshooting of simple DC circuits in laboratory exercises. Pre-requisite: (ELT 1101 with a grade of C or better) or Consent of Instructor. Lecture: 0.6 credits (9 contact hours), Lab: 0.4 credits (12 contact hours).
Components: Laboratory, Lecture

ELT 1103(1) Course ID: 005640

Introductory Circuit Analysis
Introduces basic DC circuits, specifically series-parallel circuit analysis techniques. Emphasizes design, construction, and troubleshooting of simple DC circuits in laboratory exercises. Pre-requisite: (ELT 1102 with a grade of C or better) or Consent of Instructor. Lecture: 0.6 credits (9 contact hours), Lab: 0.4 credits (12 contact hours).
Components: Laboratory, Lecture

ELT 244(4) Course ID: 000664

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, controllers, 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 (15 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ELT 260(5) Course ID: 004652

Instructor Consent Required
Robotic and Industrial Automation
Introduces theory of robots including terminology, components, and basic programming. Provides theory and application of servo and non-servo robots. Includes robot types, controllers, manipulators, and basic robotic programming. Provides the theory and operation of flexible and computer-integrated manufacturing and control systems. Provides the opportunity to develop, set up work cells, and integrate the work cells into a total computer-integrated manufacturing system at a beginning level. Pre-requisite: Consent of Instructor. Lecture: 3.0 credits (45 contact hours), Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

ELT 261(3) Course ID: 000679

Instrumentation and Measurements
Provides a study of instruments used by the mechanical engineering technician and training in the techniques of their use. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ELT 284(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 285(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 1104(1)  Course ID: 005641
Magnetism and Alternating Current
Introduces basic AC circuits, specifically introductory magnetism and basic AC theory. Emphasizes design, construction, and troubleshooting of simple AC circuits in laboratory exercises. Pre-requisite: (ELT 1103 with a grade of C or better) or Consent of Instructor. Lecture: 0.6 credits (9 contact hours). Lab: 0.4 credits (12 contact hours).
Components: Laboratory, Lecture

ELT 1105(1)  Course ID: 005642
Capacitance and Inductance
Introduces basic AC circuits, specifically capacitance, inductance and transformer principles. Emphasizes design, construction, and troubleshooting of simple AC circuits in laboratory exercises. Pre-requisite: (ELT 1104 with a grade of C or better) or Consent of Instructor. Lecture: 0.6 credits (9 contact hours). Lab: 0.4 credits (12 contact hours).
Components: Laboratory, Lecture

ELT 1201(1)  Course ID: 005648
Instructor Consent Required
Digital Basics
Introduces basic digital circuits, specifically number systems and input output functions of gates and circuits. Pre-requisite: Consent of Instructor. Lecture: 0.66 credits (10 contact hours). Lab: 0.34 credits (10 contact hours).
Components: Laboratory, Lecture

ELT 1202(1)  Course ID: 005649
Logic Circuit Design
Introduces design methods for basic digital circuits. Pre-requisite: (ELT 1201 with a grade of C or better) or Consent of Instructor. Lecture: 0.67 credits (10 contact hours). Lab: 0.33 credits (10 contact hours).
Components: Laboratory, Lecture

ELT 200. Lecture: 3.0 credits (45 contact hours).
Lab: 1.0 credit (45 contact hours).

ELT 200(1)  Course ID: 005650
Logic Circuit Components and Troubleshooting
Covers construction, troubleshooting and testing of logic circuits. Pre-requisite: (ELT 1201 with a grade of C or better) or Consent of Instructor. Lecture: 0.67 credits (10 contact hours). Lab: 0.33 credits (10 contact hours).
Components: Laboratory, Lecture

EMS 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, EMS 115 or CLA 131 Or Consent of Instructor. BIO 135 Or Consent of Instructor. Co-requisite: EMS 211. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

EMS 210(3)  Course ID: 007305
Emergency Pharmacology
Introduces students to the paramedic’s role and responsibilities of medication administration and the basic principles of pharmacology. Presents introductory core concepts of pharmacology including drug regulations, classifications, schedules, categories, delivery systems, calculations, and drug administration. Covers core concepts of emergency clinical pharmacology including major body systems, illness and injury, and methods drugs are used therapeutically to manage affected individuals. Integrates 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 240. Lab: 2.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

EMS 215(1)  Course ID: 007307
Clinical Experience I
Applies didactic knowledge, psychomotor skills, and laboratory instruction with the realities of patient care in the hospital and field setting. Includes supervision by a registered nurse, nurse practitioner, physician, or paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program focusing on the 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 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, and related to cardiac crisis, arrhythmia recognition and 12-lead ECG for field diagnosis, as well as pharmaceutical and electrical interventions. Pre-requisite: EMS 210 and EMS 211. Co-requisite: EMS 221. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EMS 221(1)  Course ID: 007309
Cardiac and Trauma Lab
Designed to encourage both an individual and group approach to simulated patient care in the laboratory setting. Includes fundamental skill sets and the addition of cardiovascular and trauma emergency patient care and management. Co-requisite: EMS 220 and EMS 230. Lab: 1.0 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

EMS 225(1)  Course ID: 007310
Clinical Experience II
Provides the opportunity for application of didactic knowledge, psychomotor skills, and laboratory instruction with the realities of patient care in the hospital setting. Supervised by a registered nurse, nurse practitioner, physician, or paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program focusing on a phase of the emergency department, operating room, and respiratory care. Pre-requisite: EMS 215. Clinical: 1.0 credit (60 contact hours).
Components: Clinical
Attributes: Technical

EMS 230(4)  Course ID: 007311
Traumatic Emergencies
Presents the advanced concepts of out-of-hospital trauma care and critical thinking activities leading to formulation of a field impression and implementation of an appropriate treatment plan and scene management. Includes the kinematics of trauma, assessment, resuscitation, management, monitoring, and transportation of trauma patients across the life span. Co-requisite: EMS 221. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

EMS 231(1)  Course ID: 007312
Medical Lab
Designed to encourage both an individual and group approach to simulated patient care in the laboratory setting. Includes fundamental skill sets with a focus on application to medical emergencies. Co-requisite: EMS 240 and EMS 250. Lab: 1.0 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

EMS 235(2)  Course ID: 007313
Clinical Experience III
Provides the opportunity for application of didactic knowledge, psychomotor skills, and laboratory instruction with the realities of patient care in the hospital setting. Supervised by a registered nurse, nurse practitioner, physician, or paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program focusing on 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 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(4)  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 involving the respiratory system, nervous system, abdominal and gastrointestinal tracts, genitourinary and renal systems, gynecology, musculoskeletal system, and the eyes, ears, nose, and throat. Co-requisite: EMS 231. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
EMS 250(3) Course ID: 007315
Medical Emergencies II
Provides an understanding of the anatomic structures, physiology, and pathophysiology encountered during assessment and the provision of care for medical emergencies encompassing immunology, infectious disease including HIV/AIDS, the endocrine system, psychiatric conditions, toxicology, and hematology. Pre-requisite: EMS 240. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical
EMS 260(3) Course ID: 007316
Special Populations
Provides the opportunity to develop special knowledge and skills necessary to assess and manage ill and or injured patients across the human life span. Focuses on the acquisition of clinical knowledge and skills in diverse populations that include obstetrics, neonatology, pediatrics, geriatrics, and special challenge topics. Pre-requisite: EMS 250. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical
EMS 270(1) Course ID: 007317
EMS Operations
Provides knowledge necessary to safely manage multi-casualty incidents and rescue situations, utilize air medical resources, identify hazardous materials, perform vehicle extrication, and minimize the associated risks related to terrorism and disaster. Lecture: 1.0 credits (15 contact hours).
Components: Lecture Attributes: Technical
EMS 275(1) Course ID: 007318
Seminar in Advanced Life Support (ALS)
Provides a comprehensive course encompassing advanced cardiac life support and pediatric advanced life support, or trauma life support, or other seminar course in relative subject matter such as medical emergencies or geriatric emergencies, to enhance the knowledge and skills acquired in the paramedic program. Addresses immediate life threatening conditions and critical interventions in a case study-scenario format where principles of assessment and intervention are applied in a team setting. Pre-requisite: EMS 225. Lab: 1.0 credit (45 contact hours).
Components: Laboratory Attributes: Technical
EMS 285(5 - 6) Course ID: 007319
Field Internship & Summation
Provides the opportunity for application of didactic knowledge, psychomotor skills, and clinical instruction with the realities of being the team leader delivering advanced patient care in the field setting. Supervised by a paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program. Included is the summative phase of the Field Internship. Pre-requisite or Co-requisite: EMS 275. Lab: 1.0 credit (45 contact hours). Practicum: 4.0 - 5.0 credits (360- 450 contact hours).
Components: Laboratory, Practicum Attributes: Technical
ENC 913(3) Course ID: 000465
Foundations of College Writing II
Applies writing as a process with instruction in intermediate writing skills and technology. Stresses organization, idea development through critical thinking, and editorial improvement through multi-paragraph writings. Introduces basic research and documentation through writing in response to reading. Pre-requisite: Placement by KCTCS Assessment and Placement policy. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Remedial - English, Course Also Offered in Modules
ENC 964(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: COMPASS Score in Writing: 26-48 or ACT score: 12-14. Lecture: 4 credits (60 contact hours)
Components: Lecture Attributes: Remedial - English
ENC 901(1) 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
ENC 902(0.25) Course ID: 006747
Writing With Computers
Introduces the use of technology to produce and share writing. Pre-requisite: As determined by KCTCS Placement Policy or successful completion of ENC 0901. Lecture: 0.25 credits (3.75 contact hours)
Components: Lecture Attributes: Remedial - English
ENC 903(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
ENC 904(1) Course ID: 006749
Pathway to Writing
Provides practice in the writing process and stresses effective paragraphs with emphasis placed on writing in response to reading. 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
ENG 100(2) Course ID: 004574
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: Appropriate writing placement score or ENC 091. Lecture: 3 credits (45 contact hours)
Components: Lecture Attributes: WC - Written Communication, Course Also Offered in Modules
ENG 102(3) Course ID: 000468
Writing II
Emphasizes argumentative writing. Provides further instruction in drafting and systematically revising essays that express ideas in Standard English. Includes continued instruction and practice in reading critically, thinking logically, responding to texts, addressing specific audiences, and researching and documenting credible academic sources. NOTE: Credit is not available by special examination. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours)
Components: Lecture Attributes: WC - Written Communication, Course Also Offered in Modules
ENG 105(3) Course ID: 000469
Instructor Consent Required
Writing: An Accelerated Course
Combines the content of ENG 101 and ENG 102 in an intensive course emphasizing argumentation and library research and fulfills the writing/accessing information requirements. Pre-requisite: ACT English score of 25 or COMPASS English score of 95 and ACT Reading score of 25 or COMPASS reading score of 90. Lecture: 3 credits (45 contact hours)
Components: Lecture Attributes: WC - Written Communication
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course ID</th>
<th>Title</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 107(3)</td>
<td>016136</td>
<td>Writing Craft: Introduction to Imaginative Writing</td>
<td>Provides an introduction to the genres and craft of imaginative writing, including fiction, nonfiction, and poetry. Students will study and practice writing in various modes through composition, peer critique, and research. Lecture and workshop. Offers credit for the UK Core Requirement in Intellectual Inquiry in Arts &amp; Creativity. Fulfills ENG pre-major requirement and provides ENG minor credit. Lecture: 3 credits (45 contact hours). Components: Lecture.</td>
</tr>
<tr>
<td>ENG 135(3)</td>
<td>000275</td>
<td>Greek and Roman Mythology in Translation</td>
<td>Examines mythic literature, primarily Greek and Roman texts. Includes selections from primary works such as Works and Days, The Iliad, The Odyssey, Greek tragedy, The Metamorphoses, and The Aeneid, with attention to their influence on later literature and culture. Pre-requisite: English ACT 18 and Reading ACT 20 OR completion of transitional reading and writing. Lecture: 3 credits (45 contact hours). Components: Lecture. Attributes: AH - Arts and Humanities.</td>
</tr>
<tr>
<td>ENG 161(3)</td>
<td>000470</td>
<td>Introduction to Literature</td>
<td>Introduces students to an analytical rather than historical approach to literature in order to deepen students' insight into the nature and purpose of literature. Lecture: 3 credits (45 contact hours). Components: Lecture. Attributes: AH - Arts and Humanities.</td>
</tr>
<tr>
<td>ENG 203(3)</td>
<td>000472</td>
<td>Business Writing</td>
<td>Provides instruction and experience in writing for business, industry, and government. Emphasizes clarity, conciseness, and effectiveness in preparing letters, memos, and reports for specific audiences. Pre-requisite: [ENG 101 and (ENG 102 or Consent of Instructor)] or ENG 105. Lecture: 3.0 credits (45 contact hours). Components: Lecture. Attributes: Other, Course Also Offered in Modules.</td>
</tr>
<tr>
<td>ENG 204(3)</td>
<td>000474</td>
<td>Technical Writing</td>
<td>Provides instruction and experience in writing for science and technology. Emphasizes clarity, conciseness, and effectiveness in preparing instructions, proposals, and lab reports for specific audiences. Lecture: 3 credits (45 contact hours). Pre-requisite: [ENG 101 and (ENG 102 or Consent of Instructor)] or ENG 105. Lecture: 3 credits (45 contact hours). Components: Lecture. Attributes: Other.</td>
</tr>
<tr>
<td>ENG 207(3)</td>
<td>000477</td>
<td>Instructor Consent Required</td>
<td>Creative Writing: (Subtitle Required) Provides instruction for beginners in the craft of writing, teaching students how to revise work in progress. Involves practice in aspects of craft and promotes experimentation with different forms, subjects, and approaches; outside reading provides models and inspiration. May be repeated under different subtitle to a maximum of six credit hours. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours). Components: Lecture. Attributes: Other.</td>
</tr>
<tr>
<td>ENG 208(3)</td>
<td>006704</td>
<td>Creative Writing: Short Story Workshop</td>
<td>Provides students with guidance in the craft of writing short fiction, how to read critically and how to revise work in progress. Includes practice and experimentation with forms, subjects, and approaches to short stories. Outside reading provides models and inspiration. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours). Components: Lecture. Attributes: Other.</td>
</tr>
<tr>
<td>ENG 221(3)</td>
<td>000479</td>
<td>Survey of English Literature I</td>
<td>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. Pre-requisite: ENG 101. Components: Lecture. Attributes: AH - Arts and Humanities.</td>
</tr>
<tr>
<td>ENG 222(3)</td>
<td>000481</td>
<td>Survey of English Literature II</td>
<td>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.</td>
</tr>
<tr>
<td>ENG 230(3)</td>
<td>004520</td>
<td>Literature and Theme (Subtitle required)</td>
<td>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.</td>
</tr>
<tr>
<td>ENG 231(3)</td>
<td>004902</td>
<td>Literature and Genre (Subtitle required)</td>
<td>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.</td>
</tr>
<tr>
<td>ENG 232(3)</td>
<td>004903</td>
<td>Literature and Place (Subtitle required)</td>
<td>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.</td>
</tr>
<tr>
<td>ENG 233(3)</td>
<td>004904</td>
<td>Literature and Identities (Subtitle required)</td>
<td>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: AH - Arts and Humanities.</td>
</tr>
<tr>
<td>ENG 251(3)</td>
<td>000483</td>
<td>Survey of American Literature I</td>
<td>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.</td>
</tr>
<tr>
<td>ENG 252(3)</td>
<td>000485</td>
<td>Survey of American Literature II</td>
<td>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.</td>
</tr>
<tr>
<td>ENG 261(3)</td>
<td>000487</td>
<td>Survey of Western Literature from the Greeks</td>
<td>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.</td>
</tr>
<tr>
<td>ENG 262(3)</td>
<td>000489</td>
<td>Survey of Western Literature from 1660 to the Present</td>
<td>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.</td>
</tr>
<tr>
<td>ENG 264(3)</td>
<td>000490</td>
<td>Major Black Writers</td>
<td>Provides a cross-cultural and historical approach to written and oral works by major Black authors of Africa, the Caribbean, and the United States. Includes writers such as Chinua Achebe (Africa), Wilson Harris (Caribbean), and Toni Morrison (USA). Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours). Components: Lecture. Attributes: AH - Arts and Humanities.</td>
</tr>
<tr>
<td>ENG 270(3)</td>
<td>000491</td>
<td>The Old Testament as Literature</td>
<td>Studies 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.</td>
</tr>
<tr>
<td>ENG 282(3)</td>
<td>005429</td>
<td>International Film Studies</td>
<td>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. Attributes: AH - Arts and Humanities.</td>
</tr>
</tbody>
</table>
ENG 299(1 - 3) Course ID: 005345
Special Topics in English
Examines selected topics in English. Includes, but not
limited to, individual authors, specified genres, and defined
eras. Pre-requisite: ENG 101 or consent of instructor.
Lecture: 1 - 3 credits (15-45 contact hours).
Components: Lecture
Attributes: Other

ENG 1101(0.75) Course ID: 005787
Writing a Personal Essay
Focuses on academic writing. Provides instruction in
reading critically, thinking logically, and responding to texts
as a means of planning, drafting and revising essays that
express thoroughly developed ideas in Standard English.
Pre-requisite: ACT score of 18, COMPASS score of 70 or
ENC 091. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture

ENG 1012(0.75) Course ID: 005788
Writing a Profile Essay
Focuses on academic writing. Provides instruction and
practice in drafting, revising and editing essays which
address specific audiences and enlist Standard English.
Pre-requisite: ENG 1011. Lecture: 0.75 credits (11.25 contact hours)
Components: Lecture

ENG 1013(0.75) Course ID: 005789
Writing to Persuade
Focuses on academic writing. Provides review and
instruction in formal academic writing conventions, at the
work, sentence, paragraph and essay levels. Pre-requisite:
ENG 1012. Lecture: 0.75 credits (11.25 contact hours)
Components: Lecture

ENG 1014(0.75) Course ID: 005790
Writing with Sources
Focuses on academic writing. Provides instruction in
reading critically, thinking logically, responding to
texts, addressing specific audiences, researching and
documenting sources. Pre-requisite: ENG 1013. Lecture :
0.75 credits (11.25 contact hours)
Components: Lecture

ENG 1021(1) Course ID: 005791
The Language of Argument
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 of 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(3) Course ID: 007242
Energy Industry Fundamentals
Investigates competencies required for employment by
various industries that manufacture energy sources.
Introduces students to methods of power production,
power distribution, and physics principles that are
associated with both, and addresses competencies
identified by the Center for Energy Workforce Development
(CEWD) organization needed for power industries.
Qualifies the student to take the CEWD Energy Industry
Fundamentals Certification exam. Lecture/Lab: 9.0 credits
(150 contact hours).
Components: Lecture
Attributes: Technical

ENM 111(3) Course ID: 007243
Sustainability Management
Examines the management of corporations as it
relates to sustainability. Includes an overview of energy
technology, energy resources, and emerging future energy
technologies coupled with social and environmentally
related legislation and its effect on corporations triple
bottom line (people, profit, and planet. Lecture: 3.0 credits
(45 contact hours).
Components: Lecture
Attributes: Technical

ENM 121(3) Course ID: 007244
Solar Design and Applications
Educates students about alternative solar energy
applications which will contribute to a reduction in fossil
fuel energy usage and increase cost savings related
to conventional energy consumption. Additionally,
the course serves to satisfy the competencies needed to
qualify students to complete the North American Board
of Certified Energy Practitioners (NABCEP) Entry Level Solar
Certification. Lecture/Lab: 3.0 credits (60 contact hours)
Components: Lecture
Attributes: Technical

ENM 200(3) Course ID: 007219
Commercial Energy Analysis
Examines ways to improve the energy efficiency of
commercial buildings. Emphasizes the building envelope,
lighting, HVAC, motors, appliances, water, electrical, and
compressed air systems and their controls with a focus on
an energy management system. Examines energy savings and
reductions in operational expenses, commercial energy
compliance software will be used. Lecture/Lab: 3.0 credits
(60 contact hours)
Components: Lecture
Attributes: Technical

ENM 210(3) Course ID: 007220
Smart Grid Applications
Introduces students to the components needed to
renovate the current vertical structured power grid to a
smart highway structure power grid that will allow energy
to flow in different directions. Focuses on the application
of different components within a smart grid system and
how they integrate and communicate with each other for
smarter transmission of electricity. Lecture/Lab: 3.0 credits
(60 contact hours)
Components: Lecture
Attributes: Technical

ENM 230(3) Course ID: 007221
Building Automation
Introduces students to the components involved in a
building automated system (BAS). Investigates the
communication and components contained in an integrated
building system that controls various components of a
building system. Lecture/Lab: 3.0 credits (60 contact hours)
Components: Lecture
Attributes: Technical

ENM 250(3) Course ID: 007222
Regulatory and Environmental Issues in Energy
Management
Observes building energy conservation code compliance
adopted by various states. Complements other courses in
the energy management program providing additional skills
needed for energy efficient buildings. Qualifies students to take
the LEED Green Associate exam upon completion of
the course. Lecture: 3.0 credits (45 contact hours)
Components: Lecture
Attributes: Technical

ENM 260(3) Course ID: 007223
Air Conditioning and Refrigeration Regulations
Analyzes the regulations associated with the 608
EPA certification. Outlines techniques and regulations
associated with EPA policies. Complements other
proposed energy management courses providing
additional skills needed for energy efficient buildings.
Qualifies students to take the 608 EPA Certification
Examination at the completion of the course. Lecture: 3.0
credits (45 contact hours).
Components: Lecture
Attributes: Technical

ENM 1011(3) Course ID: 016357
Energy Industry Basics
Investigates competencies required for employment by
various industries that manufacture energy sources.
Addresses the competencies identified by the Center for
Energy Workforce Development (CEWD) organization that
are needed for energy industries. Combines with the other
two modules to qualify students to take the CEWD Energy
Industry Fundamentals (EIF) certification. Pre-requisite:
ENM 1011. Lecture: 3 credits (45 contact hours).
Components: Lecture

ENM 1012(3) Course ID: 016359
Power Creation and Distribution
Introduces students to methods of power production,
power distribution, and physics principles that are
associated with both. Addresses the competencies
identified by the Center for Energy Workforce Development
(CEWD) organization that are needed for energy
industries. Combines with the other two modules to qualify
students to take the CEWD Energy Industry Fundamentals
(EIF) certification. Pre-requisite: ENM 1011. Lecture: 3 credits
(45 contact hours).
Components: Lecture

ENM 1013(3) Course ID: 016422
Energy Emerging Technologies
Introduces students to emerging technologies and careers
in the energy industry. Addresses the competencies
identified by the Center for Energy Workforce Development
(CEWD) organization that are needed for energy
industries. Combines with the other two modules to qualify
students to take the CEWD Energy Industry Fundamentals
(EIF) certification. Pre-requisite: ENM 1011. Lecture: 3 credits
(45 contact hours).
Components: Lecture

ENV Environmental Technology
ENV 110(4) Course ID: 001442
Introduction to Environmental Technology
Introduction to Environmental Technology provides a
background in the historical and current developments
in environmental problems, solutions, strategies, and
regulations. Students explore the various aspects of water,
land, and air pollution, pollution prevention and control, and
the role of regulation at the local, state, and federal level.
Lecture: 4 credit hours (60 contact hours)
Components: Lecture
Attributes: Technical
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: 2 credits (30 contact hours).

Components: Lecture
Attributes: Technical

EQM 240(2) Course ID: 004852
Equine Business Management II
This course is a continuation of Equine Business Management I. Topics of discussion include types of farm ownership, structure of the horse farm as a business, and evaluation of farm financial performance through production levels, employee management, tax planning, bloodstock value, cash flow and budgeting. Pre-requisite: EQM 140 and concurrent enrollment in or successful completion of ACC 201 and ECO 201, or consent of instructor. Lecture: 2 credits (30 contact hours).

Components: Lecture
Attributes: Technical

EQM 242(3) Course ID: 004758
Equine Law
This course explores the value of legal documents as they relate to commercial and recreational horse/horse farm owners. Topics discussed include review of current legislation governing horse activities, types of legal contracts, liability issues, and security interests. Pre-requisite: EQM 100 and BA 267, or consent of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

EQM 246(1) Course ID: 004759
Current Trends in the Equine Industry
Seminar course in the horse industry designed to provide students with the opportunity to investigate, evaluate and debate key issues confronting horse owners and horse industry participants. Students are encouraged to analyze controversial circumstances in the equine industry and provide insight and logical conclusion. Seminar topics may include such issues as equine adoption, slaughter, transport, medications, account overring, and public image. Pre-requisite: EOM 242 or consent of instructor. Lecture 1 credit (15 contact hours).

Components: Lecture
Attributes: Technical

EQM 250(3) Course ID: 004760
Equine Practicum
A supervised, field-based learning experience in the equine industry, including observation and proactive participation in affiliated environments. Students are required to analyze their experiences throughout the semester to develop career objectives and strong interpersonal, communication and leadership skills. Pre-requisite: EQM 240, EQM 242, and concurrent enrollment in or successful completion of EQM 246. Practicum: 3 credits (180 contact hours).

Components: Practicum
 Attributes: Technical

EQS 101(3) Course ID: 007320
Introduction to the Thoroughbred
Provides a general overview and basic understanding of care and management of the thoroughbred, including identification registration information, conformation, equine behavior and equine facility design and management. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

EQS 103(1) Racehorse Care
Introduces principles of care for racehorses in a race barn training environment with students learning industry accepted standards and techniques utilized in providing care for racehorses. Lecture: 1.0 credits (15 contact hours).

Components: Lecture
Attributes: Technical

EQS 104(2)
Racehorse Care Lab
Introduces principles of care for racehorses in a race barn environment with students learning industry accepted standards and techniques while providing daily care for 1 or 2 racehorses. Pre-requisite or Co-requisite: EQS 103. Lab: 3.0 credits (135 contact hours).

Components: Laboratory
Attributes: Technical

EQS 110(3)
Basic Equine Physiology
Continues the study of equine care by examining the anatomy and physiology of equine body systems and applications of this knowledge to the raising, training and management of horses in general and racehorses in particular. Includes identification of three muscle fiber types; types, causes and symptoms of colic; thermoregulation; blood components and flow; upper and lower respiratory airway diseases and infectious neurological diseases. Pre-requisite Or Co-requisite: EQS 101 or consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

EQS 111(1) Racehorse Riding Skills I
Introduces basic horse riding skills and their application to racehorse riding. Presents and requires daily practice of proper rider position at walk, trot, canter, on turn and in straights. Includes discussion and round pen applications of center of gravity of horse, center of gravity of rider and center of gravity of the combination of horse and rider. Teaches proper techniques for cooling out after exercise and or racing. Equine Studies is a selective admission program and enrollment in this course is dependent upon acceptance into the Equine Studies program. Pre-requisite: EGS 111 and Consent of Instructor. Pre-requisite Or Co-requisite: EGS 103 and EGS 104. Lecture/Lab: 4.0 credits (150 contact hours).

Components: Lecture
Attributes: Technical

EQS 112(4)
Instructor Consent Required Racehorse Riding Skills I
Introduces basic horse riding skills and their application to racehorse riding. Presents and requires daily practice of proper rider position at walk, trot, canter, on turn and in straights. Includes discussion and round pen applications of center of gravity of horse, center of gravity of rider and center of gravity of the combination of horse and rider. Teaches proper techniques for cooling out after exercise and or racing. Equine Studies is a selective admission program and enrollment in this course is dependent upon acceptance into the Equine Studies program. Pre-requisite: EGS 111 and Consent of Instructor. Pre-requisite Or Co-requisite: EGS 103 and EGS 104. Lecture/Lab: 4.0 credits (150 contact hours).

Components: Lecture
Attributes: Technical

EQS 113(4) Instructor Consent Required Racehorse Riding Skills II
Continues development of riding skills learned in EGS 112 by applying principles to riding racehorses in morning exercise sessions. Includes application of balance to evaluate soundness in racehorses; basic starting gate techniques for riders; principles of teaching young horses to enter and leave the starting gate and techniques for handling unruly horses. Pre-requisite: EGS 112 and consent of the instructor. Lecture/Lab: 4.0 credit (150 contact hours).

Components: Lecture
Attributes: Technical

EQS 115(3) Course ID: 015855
Equine Health and Medications
Presents principles of health management as it relates to the prevention and treatment of common diseases, parasites and wounds. Pre-requisite: EQS 110 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

EQS 121(1) Course ID: 005497
Introduction to Breaking and Training Racehorses
Introduces the basic requirements for becoming a licensed racehorse trainer or other equine care worker. Includes historical contributions of prominent owners, breeders, trainers and racehorses that significantly impacted the history of their respective breed. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
Attributes: Technical

EQS 122(3) Course ID: 005498
Instructor Consent Required Yearling Breaking and Management
Introduces the basics of managing and training weanling and yearling racehorses including conformation, movement, pedigree analysis; pre-purchase examinations and practical application of pressure-release techniques of breaking and training young racehorses. Pre-requisite: EGS 121 and permission of instructor. Lecture: 1 credit (15 contact hours). Laboratory: 2 credits (90 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

EQS 123(3) Course ID: 005499
Breaking and Prepping Two-Year-Olds
Covers basics of managing racehorses through their yearling to 2-year old transition. Includes acquiring yearlings and/or two-year-olds, breaking, prepping for in-training sales and/or racing, concepts of nutrition for growing equine athletes, cardiovascular conditioning, muscle fitness, sale presentation and injuries of two-year-olds in race training. Pre-requisite Or Co-requisite: EGS 103. Racehorse Care EGS 104: Racehorse Care Lab. Lecture/Lab: 3.0 credits (105 contact hours).

Components: Lecture
Attributes: Technical

EQS 125(3) Course ID: 005804
Equine Nutrition
Presents principles of nutritional management as it relates to the overall health and performance of the horse. Pre-requisite: EGS 110 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

EQS 130(3) Course ID: 005354
Introduction to the Racing Industry
Introduces students to racing industry organizations, personnel, facilities and the rules of racing. Lecture: 3.0 credit (45 contact hours).

Components: Lecture
Attributes: Technical
Lameness in Racehorses
Course ID: 005500

Implements on basic equine anatomy with emphasis on normal function of front and rear legs and methods of evaluating deviations from normal function presented as lameness in racehorses. Also discusses responses to injury, forms of therapy and training methods for horses returning from injury. Pre-requisite: EQS 110 or permission of instructor. Co-requisite: Concurrent enrollment in EQS 110. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

Racehorse Riding Principles
Course ID: 005503

Instructor Consent Required

Builds on basic skills learned in EQS 113 and adds principles of riding racehorses on a training track in company of other horses and riders, teaching horses to pass others, working in company, proper use of riding crop and breaking from a starting gate. Pre-requisite: EQS 113 and permission of instructor. Lecture; 1 credit (15 contact hours). Laboratory; 2 credits (90 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

Racehorse Riding Techniques
Course ID: 005504

Instructor Consent Required

Teaches advanced fundamentals of race riding such as breezing racehorses alone and in company, using proper riding techniques at each point in a race, breaking horses from the starting gate, and practicing race riding skills in races. Pre-requisite: EQS 212 and consent of instructor. Lecture/Lab: 2 credits (60 contact hours).

Components: Lecture
Attributes: Technical

Life Skills for Jockeys
Course ID: 005505

Instructor Consent Required

Prepares student for life as a professional jockey. Includes integrations of principles of nutrition into an eating plan that will maintain weight and health. Introduces concepts of practical financial management, insurance and retirement planning on a jockey’s salary. Ties together basic riding skills with interpersonal skills necessary for a successful life as a professional jockey. Pre-requisite: EQS 212 and permission of instructor. Co-requisite: EQS 212. Lecture: 3 credits (45 contact hours).

Components: Lecture

Training Principles and Practices
Course ID: 005507

Examines techniques of training racehorses and compares effectiveness of different racehorse training methods including interval training, Quarter Horse training, steeplechase training and standard Thoroughbred training. Includes showing, veterinary examinations of racehorses and alternatives to training methods. Requires students to develop a training plan for assigned North American Racing Academy (NARA) racehorses, supervise first year NARA student “employees,” participate in NARA training races and develop a plan to communicate with owners regarding the status of horses in training. Pre-requisite: EQS 123. Lecture/Lab: 4.0 credits (150 contact hours).

Components: Lecture
Attributes: Technical

Equine Legal and Business Principles
Course ID: 007322

Provides legal insights and practical tips for a successful horse business. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

Equine Studies Cooperative Education
Course ID: 005626

Provides a planned and evaluated work experience related to the student’s educational objective for which the student receives both financial remuneration and academic credit. While the maximum amount of credit granted for Equine cooperative Education experience varies by curriculum, the amount may never exceed nine hours in Associate in Applied Science Degree, diploma, or certificate program. Is available only to students enrolled in Associate of Applied Science in Equine Studies. Equine Studies Diploma and certificate program that list Equine Cooperative Education as an approved course. Pre-requisite: Consent of Instructor. Co-op: 1.0 - 9.0 credits (60 - 540 contact hours).

Components: Co-Op
Attributes: Technical

ESL English as a Second Language

Course ID: 005638

Introduction to Reading and Vocabulary
Lesson: High-beginning level students will improve fundamental reading skills and expand vocabulary as they interact with level-appropriate texts. Students will be recommended to this course based on the ESL placement examination. 4 credits (60 contact hours).

Components: Lecture
Attributes: ESL for Foreign Students

Course ID: 005308

Beginning Listening and Speaking
Lesson: High-beginning level students will improve the ability to speak and understand English in simple every day and academic situations. The course will provide practice in pronunciation and basic oral communication functions. Beginning academic listening and speaking skills will also be covered. Students will be recommended to this course based on the ESL placement examination. Lecture: 4 credits (60 contact hours).

Components: Lecture
Attributes: ESL for Foreign Students

Course ID: 005230

Intermediate Listening and Speaking
Lesson: 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: ESL for Foreign Students

Course ID: 005307

Advanced Listening and Speaking
Lesson: 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: ESL for Foreign Students

Course ID: 005216

Reading Improvement and Vocabulary Development for Low-Intermediate Non-Native English Speakers
Lesson: 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: ESL 51. 3 credits (45 contact hours).

Components: Lecture
Attributes: ESL for Foreign Students

Course ID: 005078

College Reading and Vocabulary Development for High-Intermediate Non-Native English Speakers
Lesson: 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 62 or placement test. 3 credits (45 contact hours).

Components: Lecture
Attributes: ESL for Foreign Students

Course ID: 005045

High-Intermediate Reading for Non-Native English Speakers
Lesson: 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 62 or placement test. 3 credits (45 contact hours).

Components: Lecture
Attributes: ESL for Foreign Students

Course ID: 005046

Foundations of College Writing Me for Non-Native English Speakers
Lesson: 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. 4 credits (60 contact hours).

Components: Lecture
Attributes: ESL for Foreign Students

Course ID: 005047

Foundations of College Writing II for Non-Native English Speakers
Lesson: 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. 4 credits (60 contact hours).

Components: Lecture
Attributes: ESL for Foreign Students
ESL 63(4) Course ID: 004048
Foundations of College Writing III for Non-Native English Speakers
ESL 63 is designed to help students prepare for ENG 101. High-intermediate level ESL students continue to work on the writing process, editorial improvement and critical reading. Grammar instruction includes advanced grammatical points, such as modal auxiliaries, gerunds, infinitives, and adjectival and noun clauses. Pre-requisite: ESL 62 or placement test 4 credits (60 contact hours)
Components: Lecture
Attributes: English for Foreign Students

ESL 71(3) Course ID: 007210
College Writing I for Non-Native Speakers
Introduces writing modes, including description, narration, process, and persuasion; presents methods of pre-writing; emphasizes development of thesis statements, topic support, and organization; describes basic concepts of verbs tense and transformation. 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

ESL 72(3) Course ID: 007046
College Writing II for Non-Native Speakers
Introduces writing modes, including description, narration, comparison and contrast, cause and effect, process, and persuasion; presents methods of pre-writing; emphasizes development of thesis statements, topic support, and organization; short essay organization is emphasized. A student cannot receive credit for both ESL 62 and ESL 72. Pre-requisite: Currently appropriate assessment scores and a writing sample or completion of ESL 71. Lecture: 3.0 credits (45 contact hours)
Components: Lecture
Attributes: Remedial - English

ESL 81(3) Course ID: 007211
College Grammar I for Non-Native Speakers
Introduces basic verb tenses, formation of questions, modals, clauses, and parts of speech to non-native speakers of English. Incorporates instructional methods that are designed for non-native speakers of English. Credit is not given to students who have received credit for ESL 61. Pre-requisite: Placement According to KCTCS Assessment and Placement Policy. Lecture: 3.0 credit hours (45 contact hours)
Components: Lecture
Attributes: Remedial - English

ESL 82(3) Course ID: 007047
College Grammar II for Non-Native Speakers
Introduces intermediate-level 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 both ESL 82 and ESL 82. Pre-requisite: Currently appropriate assessment scores or completion of ESL 81. Lecture: 3.0 credits (45 contact hours)
Components: Lecture
Attributes: Remedial - English

ESL 90(4) Course ID: 005079
Beginning Writing
High-beginning level ESL students will learn composition skills by receiving instruction in the following: the writing process, organization, sentence development, paragraph writing, and editing. Basic instruction in grammar provided. Students will be recommended to this course based on the ESL placement examination. 4 credits (60 contact hours)
Components: Lecture
Attributes: English for Foreign Students

ESL 91(4) Course ID: 005080
Intermediate Writing for Non-Native English Speakers
Low-intermediate level ESL students will enhance their composition skills by receiving instruction in the following: the writing process, organization, multi-paragraph writings, editing, and critical reading. Basic instruction in grammar provided. Pre-requisite: placement test 4 credits (60 contact hours)
Components: Lecture
Attributes: English for Foreign Students

ESP 101(3) Course ID: 005324
Introduction to Energy Systems
Introduces energy generating systems including solar, wind, bioenergy, geothermal, hydroelectric, hydrogen-based, petroleum-based, coal, and nuclear. Lecture: 3.0 credits (45 contact hours)
Components: Lecture
Attributes: Technical

ESP 110(3) Course ID: 005491
Petroleum Based Fuels
Introduces the major petroleum based fuels including energy content, uses, availability, distribution methods, storage, and future impact of each fuel. Lecture: 3.0 credits (45 contact hours)
Components: Lecture
Attributes: Technical

ESP 120(3) Course ID: 005492
Power Plant Chemistry
Introduces chemical processes relating to power plant operation including basic chemical principles and specific chemistry of fuels, boiler and cooling water, steam, water treatment and environmental controls. Lecture: 3.0 credits (45 contact hours)
Components: Lecture
Attributes: Technical

ESP 211(3) Course ID: 005320
Power Plant Operations I
Introduces overall power plant operations including electrical generation, fuels and steam generation. Lecture: 3.0 credits (45 contact hours)
Components: Lecture
Attributes: Technical

ESP 212(3) Course ID: 005323
Power Plant Operations II
Provides detailed training in the operations of boilers, fuel, air, combustion and emissions systems, including auxiliary equipment of a coal-fired (fossil fueled) power plant. Pre-requisite: ESP 211 or consent of the instructor. Lecture: 3.0 credits (45 contact hours)
Components: Lecture
Attributes: Technical

ESP 213(3) Course ID: 005322
Power Plant Operations III
Provides detailed training in the operations of water, steam, turbines and generator systems of a coal-fired (fossil fueled) power plant stressing proper operation during normal operations, startups and shutdowns, and transient conditions will be stressed. 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 thermodynamic concepts and the applications of thermodynamics in a fossil-fueled power plant. Pre-requisite: PHY 151 or higher. Lecture: 3.0 credits (45 contact hours)
Components: Lecture
Attributes: Technical

ESP 280(3) Course ID: 005496
Capstone in Energy Systems
Serves as the capstone course for the Energy Systems program by integrating prior learning into a single integrated learning experience. Requires planning, research, and completion of both individual and team-based reports based on real-world problems or projects in the Energy Systems field. Pre-requisite: ESP 213. Lecture: 3.0 credits (45 contact hours)
Components: Lecture
Attributes: Technical

EST 150(4) Course ID: 004744
Introductory Ecology
Introduces basic concepts and current applications of ecology relevant to environmental issues. Emphasizes relationships between organisms and the environment; influencing factors affecting distribution and abundance; population structure and regulation; energy flow and nutrient cycling through the environment; and, development, structure, and response to distribution of organismal communities. Includes weekly laboratories to provide hands-on field experiences to reinforce concepts learned in lecture. Lecture: 3 credits (45 contact hours). Laboratory: 1 credit (30 contact hours)
Components: Laboratory
Attributes: SL - Science Laboratory, SN - Science
EST 160(3) Course ID: 004745
Hydrological Geology
This course provides an introduction to geology and hydrology with an emphasis on understanding natural processes and the effects of human activities. Major topics covered include: plate tectonics; formation and classification of rocks and minerals; the processes affecting the hydrologic cycle; soil formation and classification; subsurface geology and groundwater movement; stream formation and flow; floods; and human impacts to stream hydrology and morphology. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

EST 170(2) Course ID: 004746
Environmental Sampling Laboratory
A laboratory course which provides the fundamentals in evaluating and designing sampling approaches for different situations and different media. The course will provide students with field experience in sampling soil, surface water, groundwater, and benthic invertebrates. Laboratory: 2 credits (60 contact hours). Pre-requisite: EST 150 or consent of instructor.
Components: Laboratory
Attributes: Technical

EST 220(3) Course ID: 004747
Pollution of Aquatic Ecosystems
This course examines freshwater ecosystems and typical aquatic pollutants. Discussion topics focus on the sources, transport, fate, and effects of common pollutants such as domestic wastewater, metals, acidity, and pesticides. Methods to minimize or eliminate the sources and effects of pollutants are also explored. Pre-requisite or concurrent: EST 150, EST 160, CHE 105, and CHM 105 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EST 225(3) Course ID: 005054
Freshwater Invertebrates
An overview of the morphology, life history and ecology of freshwater invertebrates and their habitats as well as their importance and role in stream protection and restoration. Students will learn how to collect, preserve and identify freshwater invertebrates. Students will learn how to calculate and analyze biometrics used to infer stream quality. Pre-requisite: EST 150. 3 credits (45 contact hours)
Components: Lecture
Attributes: Technical

EST 230(2) Course ID: 004748
Aquatic Chemistry Laboratory
This course provides focused study on the chemistry of water. The course will provide students with laboratory experience in analyzing surface, ground, and drinking waters for a variety of chemical constituents. Laboratory: 2 credits (60 contact hours). Pre-requisite: CHE 105, CHM 105, and Pre-requisite or concurrent EST 220.
Components: Laboratory
Attributes: Technical

EST 240(4) Course ID: 004749
Sources and Effects of Air Pollution
This course provides an introduction to the study of ambient and indoor air pollution with an emphasis on sources, dispersion, and health and welfare effects of the major pollutants. Both regulatory and engineering controls of stationary and mobile sources are explored. A laboratory provides experience with sampling and analysis of air pollutants. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (30 contact hours). Pre-requisite: EST 150 and CIT 130, or equivalent, or consent of instructor.
Components: Laboratory, Lecture
Attributes: Technical

EST 250(3) Course ID: 004750
Solid and Hazardous Waste Management
This course examines methods of managing solid and hazardous waste, with an emphasis on pollution prevention. Topics covered include: plate tectonics; formation and classification of rocks and minerals; the processes affecting the hydrologic cycle; soil formation and classification; subsurface geology and groundwater movement; stream formation and flow; floods; and human impacts to stream hydrology and morphology. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ETT Electrical Technology

ETT 110(4) Course ID: 004231
Voice & Data Installer Level I
A comprehensive orientation to the telecommunication industry. Provides entry-level telecommunications cabling installers with the background, knowledge, and basic skills needed to function effectively on the job. Designed for those with little or no telecommunications installation experience. Pre-requisite: Basic physics/electricity courses are recommended but not required. Lecture: 4 credits (75 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ETT 112(3) Course ID: 004232
Basic Electrical Theory: Teledistributing
Introduces the theory of electricity, magnetism, and the relationship of voltage, current, resistance, and power in electrical circuits as related to telecommunications. Designed to develop an understanding of alternating and direct current fundamentals. Students will apply formulas to analyze the operation of AC and DC circuits. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ETT 113(1) Course ID: 004233
Basic Electrical Theory Lab
Instructor Consent Required

EX Experiential Education

EX 196(1-6) Course ID: 000747
Instructor Consent Required

EXPERIENTIAL EDUCATION
A planned and evaluated learning work experience for which the student receives academic credits and may receive financial remuneration. The work experience may be related to the student’s major or may be exploratory in nature. One credit may be awarded for each 40 hours of work experience. The course may be repeated for a maximum of 6 credits and is available on a Pass/Fail basis only. This course is open only to transfer, nondegree seeking and undecided students. Lecture: Variable; Laboratory: Variable. Pre-requisite: Consent of instructor.
Components: Laboratory, Lecture
Attributes: Technical

FAM Family Studies

FAM 252(3) Course ID: 000662
Introduction to Family Science
Introduces the scientific study of the family, including important theoretical frameworks in family science, historical trends in marriage and family life, gender role theory, family life theory, parent, communication, economic conditions of family life, conflict, divorce, step-families and step-parenting, and family strengths. Analyzes contemporary family issues and requires informed, written positions on those issues. Pre-requisite: 3 hours of social or behavioral science or consent of instructor.
Components: Lecture
Attributes: SB - Social Behavior Science

FAM 253(3) Course ID: 000666
Human Sexuality: Development, Behavior, and Attitudes
Studies human sexuality, including the process of gender and attitudes, sexual response patterns, sexual behavior, and attitudes. Pre-requisite: 3 hours in social or behavioral science or consent of instructor.
Components: Lecture
Attributes: SB - Social Behavior Science
FLM 200(3) Course ID: 007266

Cinematography
Prepares students for careers in film, 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 affect 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 credits (75 contact hours).
Components: Lecture
Attributes: Technical

FLM 201(3) Course ID: 007285

Screenwriting
Introduces the fundamentals of screenwriting including scene description, character development, plot twists, turn-arounds, three-act structure and revisions. Reviews writing for camera. Demonstrates the use of proper formatting and the connection between the screenplay, the director and the production team. Connects students to active screenwriters through collaboration and networking. Prepares students for work with the Writers Guild and other professional organizations. 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: 2.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

FLM 210(3) Course ID: 007286

Cinematic Arts Internship
Prepares students for entry into Bachelor of Fine Arts programs and film schools statewide or for the workforce in film production. Illuminates 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 writing a resume, 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. Practicum: 3.0 credits (180 contact hours).
Components: Practicum
Attributes: Technical

FLM 219(3) Course ID: 016195

Special Topics in FLM: TOPIC
Explores concepts and/or skills from special areas in film theory focusing on a specific genre. Note: May be repeated with different topics to a maximum of 6 credit hours. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

FNS 101(2) Course ID: 006947

Introduction to Funeral Service
Introduces the history, principles, and practices of funeral service with attention to the fundamental skills, knowledge, ethics, aptitudes, and obligations of a funeral service professional in the United States. Pre-requisite: Admission to Funeral Service Program or consent of instructor. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical
FNS 240(4) Course ID: 006556
Restorative Arts
Emphasizes restorative arts as applied to funeral services, including anatomical modeling, and expression. Emphasizes familiarization with tools, legal aspects, materials, and techniques. Pre-requisite: Admission to the Funeral Service Program and BIO 135. Lecture: 3.0 credits (45 contact hours) Lab: 1.0 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

FNS 250(4) Course ID: 006557
Embalming
Emphasizes procedures, requirements, equipment, and materials involved in the embalming process. Pre-requisite: Admission to the Funeral Service Program and FNS 250. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

FNS 255(1) Course ID: 006558
Embalming Practicum
Provides practical experience in embalming and funeral directing in a mortuary or funeral home environment under the supervision of a licensed embalmer and/or funeral director. Pre-requisite: Admission to the Funeral Service Program and FNS 250. Practicum: 1.0 credit (90 contact hours).
Components: Practicum
Attributes: Technical

FNS 275(2) Course ID: 006559
Funeral Service Projects
Provides comprehensive review of entire Funeral Service curriculum in preparation for the National Board Examination and eligibility for all state and national licensure requirements. Addresses current events, skills, knowledge, and/or attitudes and behaviors pertinent to the occupation and relevant to the professional development of the student. Pre-requisite: Admission to the Funeral Service Program. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

FPX Fluid Power

FPX 100(3) Course ID: 001464
Fluid Power
Includes fluid power theory, component identification and application, schematic reading, and basic calculations related to pneumatic and hydraulic systems and their operation. Co-requisite: FPX 101 or Consent. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

FPX 101(2) Course ID: 001465
Fluid Power Lab
Provides practical experiences in the study of fluid power theory, hydraulics and pneumatics component identification, schematic reading, and basic calculations related to hydraulic and pneumatic systems and their operation. Co-requisite: FPX 100 or Consent of Instructor. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Same As Offering: FPX 101
Attributes: Course Also Offered in Modules, Technical

FPX 1001(0.3) Course ID: 005625
Introduction to Fluid Power
Introduces the basic concepts of fluid power and provides an opportunity to discuss the application of those concepts in the development of hydraulic and pneumatic systems. Includes a general discussion on the safe working practices required with fluid power systems. Co-requisite: FPX 1001 or Consent. Lecture: 0.3 credit (4.5 contact hours).
Components: Lecture

FPX 1002(0.3) Course ID: 005674
Introduction to Hydraulic System Maintenance
Familiarizes the student with hydraulic fluids, reservoirs, and filters. Covers the methodologies required when servicing a typical hydraulic system. Includes a general discussion on the safe working practices required with fluid power systems. Pre-requisite: [FPX 1001 and FPX 1011] with a grade of C or better or Consent. Co-requisite: FPX 1012 or Consent. Lecture: 0.3 credit (4.5 contact hours).
Components: Lecture

FPX 1003(0.4) Course ID: 005675
Introduction to Pneumatic System Maintenance
Introduces pneumatic system maintenance. Covers the skills required to service modern pneumatic and air preparation systems. Includes a general discussion on the safe working practices required with fluid power systems. Co-requisite: FPX 1013 or Consent. Lecture: 0.4 credit (6.0 contact hours).
Components: Lecture

FPX 1004(1) Course ID: 006542
Hydraulic System Components and Applications
Introduces the basic fundamentals of hydraulic component, system design, and operation. Covers higher level schematic layout and design as well as the specifics involved with the actual component selection. Provides the opportunity to design and build actual hydraulic circuits and then troubleshoot any faults that may be present in their design or construction. Includes a general discussion on the safe working practices required with fluid power systems. Co-requisite: FPX 1014 or Consent. Lecture: 1 credit (15 contact hours).
Components: Lecture

FPX 1005(1) Course ID: 006543
Pneumatic Systems and Components
Introduces the basic fundamentals of pneumatic components and operation. Covers higher level schematic layout and design as well as the specifics involved with the actual component selection. Provides the opportunity to design and build actual pneumatic circuits and then troubleshoot any faults that may be present in their design or construction. Includes a general discussion on the safe working practices required with fluid power systems. Co-requisite: FPX 1015 or Consent. Lecture: 1 credit (15 contact hours).
Components: Lecture

FPX 1011(0.3) Course ID: 005676
Introduction to Fluid Power Lab
Introduces the basic concepts of fluid power and discusses the application of those concepts in the development of hydraulic and pneumatic systems. Includes a general discussion on the safe working practices required with fluid power systems. Co-requisite: FPX 1001 or Consent. Lab: 0.3 credits (9 contact hours).
Components: Laboratory

FPX 1012(0.3) Course ID: 005677
Introduction to Hydraulic System Maintenance Lab
Introduces pneumatic system maintenance. Familiarizes students with hydraulic fluids, reservoirs, and filters. Covers the methodologies required when servicing a typical hydraulic system. Includes a general discussion on the safe working practices required with fluid power systems. Co-requisite: FPX 1002 or Consent. Lab: 0.3 credit (9 contact hours).
Components: Laboratory

FPX 1013(0.3) Course ID: 005678
Introduction to Pneumatic System Maintenance Lab
Introduces pneumatic system maintenance. Covers the skills required to service modern pneumatic and air preparation systems. Includes a general discussion of the safe working practices required with fluid power systems. Co-requisite: FPX 1003 or Consent. Lab: 0.3 credit (9 contact hours).
Components: Laboratory

FPX 1014(0.55) Course ID: 006544
Hydraulic System Components and Applications Lab
Introduces basic fundamentals of hydraulic component, system design, and operation. Includes fluid power theory, component identification and the actual component selection. Provides the opportunity to design and build actual hydraulic circuits and then troubleshoot any faults that may be present in their design or construction. Includes a general discussion on the safe working practices required with fluid power systems. Lab component for FPX 1005. Co-requisite: FPX 1005 or Consent. Lab: 0.5 Contact Hours (16.5).
Components: Laboratory

FRE French Language and Literature

FRE 101(4) Course ID: 000866
Elementary French I
Introduces basic modes of communication in French. Covers speaking, listening, reading and writing as target skills. Emphasizes everyday language and presents an overview of the cultures of various Francophone countries. Lecture: 4 credits (60 contact hours)
Components: Lecture
Attributes: Foreign Language, Cultural Studies

FRE 102(4) Course ID: 000754
Elementary French II
Continues the study of basic French through grammar, reading, and oral practice. Stresses speaking, listening, and writing as target skills. Emphasizes everyday language and exploring the cultures of various Francophone countries. Pre-requisite: FRE 101. Lecture 4 credits (60 contact hours)
Components: Lecture
Attributes: Foreign Language, Cultural Studies

FRE 201(3) Course ID: 000874
Intermediate French I
Focuses on developing listening, speaking, reading, and writing skills in French at the intermediate level with an emphasis on developing cultural competency. Pre-requisite: FRE 102 or two years of high school French and placement test. Lecture: 3 credits (45 contact hours)
Components: Lecture
Attributes: Foreign Language, Cultural Studies

FRE 202(3) Course ID: 000811
Intermediate French II
Continues FRE 201 with a focus on developing listening, speaking, reading, and writing skills in French at the intermediate level with an emphasis on developing cultural competency. Pre-requisite: FRE 201 or three years of high school French and placement test. Lecture: 3 credits (45 contact hours)
Components: Lecture
Attributes: Foreign Language, Cultural Studies

FRS Fire/Rescue Science

FRS 101(3) Course ID: 001466
Introduction to Fire Service
This course includes fire department organization, fire behavior, firefighter safety, personal protective equipment, portable fire extinguishers, fire hose, appliance and streams. Lecture: 3 credits (45 contact hours)
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

FRS 102(3) Course ID: 001467
Firefighters Basic Skills I
Includes ropes, ladders, aircraft rescue, forcible entry, first aid, bloodstream pathogens, emergency disaster planning, and CPR. Pre-requisite: FRS 101 or Consent of Instructor. Lecture: 3 credits (45 contact hours)
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
Fires and Arson Investigation

FRS 103(3) Course ID: 001468
Firefighters Basic Skills II
Includes building construction, wildland fire behavior, fire control, and ventilation. Pre-requisite: FRS 102 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
FRS 104(3) Course ID: 001469
Firefighters Intermediate Skills II
Includes water supply, foam fire streams, fire alarms and communications, hazardous materials awareness, hazardous materials operations, sprinklers, and salvage and overhaul. Pre-requisite: FRS 103 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
FRS 201(3) Course ID: 001470
Firefighters Advanced Skills I
Includes fire department organization, fire behavior, personal protective equipment, fire hose, appliances and streams, ropes, forcible entry. Pre-requisite: FRS 103 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
FRS 202(3) Course ID: 001472
Firefighters Advanced Skills II
Includes portable fire extinguishers, water supply, pump operations, foam fire streams, salvage, fire prevention, public education, and fire cause determination. Pre-requisite: FRS 104 or Consent of Instructor. Lecture: 3 credit hours (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
FRS 203(3) Course ID: 001473
Firefighters Advanced Skills III
Includes pump operations II, drivers training, overhaul, fire alarms and communications, sprinklers, and prudicium. Pre-requisite: FRS 202 or Consent of Instructor. Lecture: 3 credits (90 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
FRS 204(3) Course ID: 001474
EMT First Responder
EMT First Responder includes first responder (EMS). Components: Lecture
Attributes: Course Also Offered in Modules, Technical
FRS 205(5) Course ID: 001475
Fire Officer I
Includes incident safety officer, haz-mat tech., fire prevention, public education and fire cause determination II. Pre-requisite: FRS 202 or Consent of Instructor. Lecture: 5 credits (75 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
FRS 206(8) Course ID: 001476
Fire Officer II
Includes EMT, managing company tactical operations, decision making, and instructional techniques for company officers. Pre-requisite: FRS 203 or Consent of Instructor. Lecture: 8 credit hours (180 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
FRS 207(6) Course ID: 001477
Fire Officer III
Includes company officer, incident command system (ICS), leadership strategies for company success, and fire/arson detection. Pre-requisite: FRS 203 or Consent of Instructor. Lecture: 6 credits (90 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
FRS 1011(0.7) Course ID: 003890
Fire Department Organization I
Includes an overview of fire department organization, the role of department members, the mission of the department, standard operating procedures, rules and regulations, components of management, introduction to the Incident Command System and the roles of other agencies. Lecture: 0.7 credits (10 contact hours).
Components: Lecture
FRS 1012(0.3) Course ID: 003891
Fire Behavior I
Explores the aspects of the behavior of fire in its various forms. Covers the classification of fuel, products of combustion, and safety issues related to life hazards. Explains the three physical states of matter in which fuels are found. Laboratory: 0.3 credits (4 contact hours).
Components: Lecture
FRS 1013(0.4) Course ID: 003892
Firefighter Safety
Introduces the concept of safety in all phases of fire department operations. Covers station safety in normal day to day fire department operations as well as emergency response. Laboratory: 0.4 credits (6 contact hours).
Components: Lecture
FRS 1014(0.8) Course ID: 003893
Personal Protective Equipment I
Addresses the nomenclature, use, maintenance, and documentation relative to the personal protective equipment including protective clothing and self-contained breathing apparatus. Pre-requisite: (FRS 1012 and FRS 1013) or consent of instructor. Components: Laboratory, Lecture
FRS 1015(0.2) Course ID: 003894
Portable Fire Extinguishers I
Covers types, classification and use of fire extinguishers including the definitions utilized in rating each type and the selection of a given extinguisher in attacking a particular class of fire. Laboratory: 0.2 credits (3 contact hours).
Components: Laboratory, Lecture
FRS 1016(0.6) Course ID: 003895
Fire Hose, Appliances and Streams I
Introduces the student to the types, uses and operations of fire hose, appliances and streams used in the fire service. Pre-requisite: FRS 1014 or Consent of Instructor Laboratory: 0.6 credits (10 contact hours).
Components: Laboratory, Lecture
FRS 1021(0.2) Course ID: 003896
Ropes I
Familiarizes the student with the use and maintenance of rope and the various ties useful to hoisting equipment, securing objects and rescue. Pre-requisite: (FRS 101 or FRS 1014) or Consent of Instructor. Laboratory: 0.2 credits (3 contact hours).
Components: Laboratory, Lecture
FRS 1022(0.6) Course ID: 003897
Ladders I
Covers basic information pertaining to the use of ladders in the fire service including ladder terminology, types of ladders and ladder carries and raises. Pre-requisite: FRS 1021 or Consent of Instructor Laboratory: 0.6 credits (9 contact hours).
Components: Laboratory, Lecture
FRS 1023(0.4) Course ID: 003898
Aircraft Rescue
Provides the basic information needed by firefighters to effectively perform the various tasks involved in aircraft fire fighting and rescue. The information is consistent with the recommendations in NFPA 1003 Standard for Professional Qualifications for Airport Fire Fighters, 1987 Edition. Lecture: 0.4 credits (6 contact hours).
Components: Lecture
FRS 1024(0.4) Course ID: 003899
Rescue I
Addresses the procedures of search for location, removal of entrapped and/or injured persons under fire conditions, and identifies the equipment required by the National Fire Protection Association used to affect the procedures. Pre-requisite: FRS 1022 or Consent of Instructor Laboratory: 0.4 credits (6 contact hours).
Components: Laboratory, Lecture
FRS 1025(0.3) Course ID: 003900
First Aid
Addresses the knowledge and skills for administering first aid including the assessment and treatment of patients sustaining injury or sudden illness until a higher level of trained emergency care technician arrives. Laboratory: 0.3 credits (4 contact hours).
Components: Laboratory, Lecture
FRS 1026(0.3) Course ID: 003901
Bloodborne Pathogens
Provides bloodborne pathogens education for emergency responders, health professionals, and others who are subject to exposure in the 1) transmission; 2) prevention and control; 3) treatment; 4) legal issues; and 5) attitudes and behavior regarding human infections, and covers requirements of OSHA 1910.1030. Lecture: 0.3 credits (4 contact hours).
Components: Laboratory, Lecture
FRS 1027(0.1) Course ID: 003902
Emergency Disaster Planning I
Introduces the concept of emergency management and the importance of an incident command system. Identifies the likelihood of fire department involvement as an all-hazard response agency. Lecture: 0.1 credits (2 contact hours).
Components: Lecture
FRS 1028(0.2) Course ID: 003903
Forcible Entry I
Identifies materials and construction features of doors, windows, walls, door and window locking devices. Teaches forced entry through at least three (3) different types each of doors, windows, and walls. Discusses maintenance of tools and equipment used for forced entry and safety factors. Pre-requisite: (FRS 101 or FRS 1014) or Consent of Instructor Laboratory: 0.2 credits (3 contact hours).
Components: Laboratory, Lecture
FRS 1029(0.5) Course ID: 003904
CPR
Provides the knowledge and skills for administering care for respiratory or cardiac arrest including airway, breathing, and circulation assessment and the procedures to eliminate blockage of the airway, provide breathing assistance, and cardiac compressions. Lecture: 0.5 credits (8 contact hours).
Components: Lecture
FRS 1030(0.7) Course ID: 003905
Building Construction
Improves the ability of students to assess building stability and resistance to fire. Teaches to protect the lives of firefighters and community residents, while improving operational effectiveness through more complete and accurate "size-ups." Upgrades the skills of our nation's fire service. Lecture: 0.7 credits (10 contact hours).
Components: Lecture
FRS 1032(0.5) Course ID: 003956
Introduction to Wildland Fire Behavior
Familiarizes firefighters with wildland fires. Includes familiarization with the fire triangle, how environmental factors influence wildland fires, and the ability to recognize situations that indicate problem or extreme wildland fire behavior. Lecture: 0.5 credits (8 contact hours).
Components: Lecture
FRS 1033(1.4) Course ID: 003906
Fire Control I
Teaches the student to control or extinguish stacks of Class A materials, combustible liquids, vehicle fires, exterior dumpster/trash bin, and Class A combustible materials within a structure. Pre-requisite: (FRS 1011 and FRS 1016 and FRS 1028) or Consent of Instructor. Co-requisite: FRS 1034 or Consent of Instructor Laboratory: 1.4 credits (21 contact hours)
Components: Laboratory, Lecture

FRS 1034(0.4) Course ID: 003907
Ventilation I
Involves the study of the principles of ventilation, including the methods of removing heated air, smoke and gases from a structure. Includes a review of roof structures and their effects on ventilation procedures. Pre-requisite: FRS 1022 or consent of Instructor Co-requisite: FRS 1033 or consent of Instructor Laboratory: 0.4 credits (6 contact hours)
Components: Laboratory, Lecture

FRS 1041(0.4) Course ID: 003941
Water Supply I
Provides the firefighter with a general understanding of water systems. Broadens the base of understanding of a water supply system and how it works. Covers hydrant systems as well as static water sources for determining their value as a firefighter water supply source. Pre-requisite: (FRS 1012 and FRS 1016) or Consent of Instructor Laboratory: 0.4 credits (6 contact hours)
Components: Laboratory, Lecture

FRS 1042(0.2) Course ID: 003942
Foam Fire Streams I
Instructs the student in foam performance, extinguishing properties and types of foam used in the fire service today. Pre-requisite: (FRS 1012 and FRS 2023) or Consent of Instructor Laboratory: 0.2 credits (3 contact hours)
Components: Laboratory, Lecture

FRS 1043(0.3) Course ID: 003943
Salvage I
Reviews salvage methods and operating procedures that further reduce fire, water, and smoke damage during and after fires. Pre-requisite: FRS 1033 or Consent of Instructor Lecture: 0.3 credits (4 contact hours)
Components: Lecture

FRS 1044(0.1) Course ID: 003944
Overhaul I
Provides the firefighter with a general understanding of the purpose and scope of overhaul, including recognition of hidden fires and methods used to separate, remove, and relocate charred materials. Pre-requisite: (FRS 1028 and FRS 1034) or Consent of Instructor Lecture: 0.1 credits (2 contact hours)
Components: Lecture

FRS 1045(0.2) Course ID: 003945
Fire Alarms and Communications I
Covers basic information pertaining to fire alarms and communications including radio operations, alarm receiving equipment, and dispatching procedures. Lecture: 0.2 credits (3 contact hours)
Components: Lecture

FRS 1046(0.5) Course ID: 003946
Hazardous Materials Awareness
Introduces the student to the principles of recognizing hazardous materials presence, protecting themselves from hazardous materials and calling for training/personnel, and securing the area safety. Lecture: 0.5 credits (8 contact hours)
Components: Lecture

FRS 1047(1.1) Course ID: 003947
Hazardous Materials Operations
Involves training to meet Federal Occupational Safety and Health Administration (OSHA), local occupational health and safety regulations and, U.S. Environmental Protection (EPA) requirements. Pre-requisite: (FRS 1014 and FRS 1046) or Consent of Instructor. Lecture: 1.1 credits (16 contact hours)
Components: Lecture

FRS 1048(0.2) Course ID: 003948
Sprinklers I
Gives the firefighter a basic understanding of how sprinkler systems are designed and how they operate. Pre-requisite: FRS 1041 or Consent of Instructor. Lecture: 0.2 credits (3 contact hours)
Components: Lecture

FRS 1051(0.3) Course ID: 003908
Fire Department Organization II
Includes an overview of an advanced fire department member’s role within the organization and the member’s responsibilities relative to the transfer of command. Pre-requisite: FRS 1011 or Consent of Instructor Lecture: 0.3 credits (4 contact hours)
Components: Lecture

FRS 1052(0.4) Course ID: 003909
Fire Behavior II
Describes the chemistry and behavior of fire. Looks at finely divided fuel, flash point, ignition temperatures and heat sources. Pre-requisite: FRS 1012 or Consent of Instructor Lecture: 0.4 credits (6 contact hours)
Components: Lecture

FRS 1053(0.5) Course ID: 003910
Personal Protective Equipment II
Addresses the nomenclature, use, maintenance, and documentation relative to the personal protective equipment including protective clothing and self-contained breathing apparatus. Pre-requisite: FRS 1014 or Consent of Instructor Laboratory: 0.5 credits (8 contact hours)
Components: Laboratory, Lecture

FRS 1055(0.7) Course ID: 003912
Ropes II
Includes rope size, strength, type and length of rope to accomplish a firefighting or rescue task. Pre-requisite: FRS 1021 or Consent of Instructor Laboratory: 0.7 credits (10 contact hours)
Components: Laboratory, Lecture

FRS 1056(0.5) Course ID: 003913
Forcible Entry II
Identifies materials and construction features of doors, windows, walls, and door and window locking devices. Teaches forced entry through at least three different types of doors, windows, and walls. Discusses maintenance of tools and equipment used for forced entry and safety factors involved. Pre-requisite: FRS 1028 or Consent of Instructor Laboratory: 0.5 credits (7 contact hours)
Components: Laboratory, Lecture

FRS 1057(0.3) Course ID: 003914
Firefighter Safety II
Correlates federal, state, and local laws as they relate to firefighter health and safety. Discusses the firefighter’s role in department safety and includes safety procedures for hand and power tools. Pre-requisites: (FRS 1013 and FRS 1026 and FRS 1034) or Consent of Instructor Lecture: 0.3 credits (4 contact hours)
Components: Lecture

FRS 2011(0.3) Course ID: 003915
Ladders II
Covers information pertaining to the use of ladders in the fire service including construction materials, load capacities, and cleaning and inspection. Pre-requisite: FRS 1022 or Consent of Instructor Laboratory: 0.7 credits (11 contact hours)
Components: Laboratory, Lecture

FRS 2012(0.1) Course ID: 003916
Rescue II
Addresses the techniques and procedures to follow relative to specific rescues, the equipment required for each and their proper use and the extraction of trapped victims. Pre-requisite: FRS 1024 or Consent of Instructor Laboratory: 0.3 credits (4 contact hours)
Components: Laboratory, Lecture

FRS 2014(0.3) Course ID: 003917
Ventilation II
Includes an advanced level study in ventilating procedures. Reviews mechanical ventilation systems and their use in fire ground operations. Pre-requisite: FRS 1034 or Consent of Instructor Lecture: 0.3 credits (4 contact hours)
Components: Lecture

FRS 2015(0.6) Course ID: 003918
Fire Control II
Provides an advanced course to teach the student to control or extinguish live fires involving combustible liquids of at least 100 sq. ft. using foam, fire in an elevated location, hidden fires inside walls and crawl spaces, fire involving energized electrical components and fire involving a flammable gas cylinder. Pre-requisite: FRS 1033 or Consent of Instructor. Lecture: 0.6 credits (9 contact hours)
Components: Lecture

FRS 2016(0.8) Course ID: 003919
Emergency Disaster Planning II
Meets the needs of fire officers and crew leaders with responsibilities to manage the operations of one or more companies in structural firefighting operations. Includes preparation for response, decision-making, and tactical operations. Involves extensive use of simulation to apply concepts and develop skill. Pre-requisite: FRS 1027 or Consent of Instructor. Lecture: 0.8 credits (12 contact hours)
Components: Lecture

FRS 2021(0.1) Course ID: 003920
Portable Fire Extinguishers II
Covers types, classification and use of fire extinguishers including the definitions utilized in rating each type and the selection of a given extinguisher in attacking a particular class of fire. Pre-requisite: FRS 1015 or Consent of Instructor. Lecture: 0.1 credits (2 contact hours)
Components: Lecture

FRS 2022(0.8) Course ID: 003921
Water Supply II
Includes information pertaining to water supply including water distribution systems, hydrant operation and apparatus, equipment and appliances required to provide water for fire extinguishment. Pre-requisite: FRS 1041 or Consent of Instructor. Components: Laboratory, Lecture: 0.8 credits (12 contact hours)

FRS 2023(1.1) Course ID: 003922
Pump Operations I
Includes the minimum requirements of professional competence of fire service pump operators. Pre-requisite: FRS 1041 or Consent of Instructor. Laboratory: 1.1 credits (17 contact hours)
Components: Laboratory, Lecture

FRS 2024(0.1) Course ID: 003923
Foam Fire Streams II
Includes an advanced course designed to instruct the student in the proper use of foam, the equipment used to make foam, and the hydraulics used in creating foam. Pre-requisite: FRS 2023 or Consent of Instructor. Lecture: 0.1 credits (1 contact hour)
Components: Lecture

FRS 2025(0.1) Course ID: 003924
Salvage II
Covers, at an advanced level, salvage methods and operating procedures that further reduce fire, water, and smoke damage during and after fires. Pre-requisite: FRS 1043 or Consent of Instructor. Lecture: 0.1 credits (1 contact hour)
Components: Lecture

FRS 2026(0.8) Course ID: 003957
Fire Prevention, Public Education and Fire Cause Determination I
Covers basic information pertaining to the causes of fire and their prevention, fire inspections, and public fire education. Pre-requisite: FRS 1043 or Consent of Instructor. Lecture: 0.8 credits (12 contact hours)
Components: Lecture
so because they could not get out of the fire building or area where they were working. We train our firefighters in confined space, hazardous materials, infectious disease control, and incident command but until now there was no training course that taught our firefighters how to save their own lives. The firefighter Survival and Rescue courses are designed to fill this void by reviewing conditions and situations which may pose a risk to firefighters and by teaching firefighters how to help themselves in emergency conditions. Pre-requisite: FRS 1024 or Consent of Instructor. Lecture: 1.1 credits (16 contact hours). Components: Lecture

FRS 2053(3.4) Course ID: 003933
Hazardous Materials Technician
Provides the required training for Federal Occupational Safety and Health Administration (OSHA), Kentucky Occupations Health and Safety regulation and U.S. Environmental Protection Agency (EPA) requirements. Covers responding to releases or potential releases of hazardous materials for the purpose controlling the release and using specialized chemical-protective clothing and specialized control equipment. Pre-requisite: FRS 1047 or Consent of Instructor Components: Laboratory, Lecture: 3.4 credits (52 contact hours)

FRS 2061(6) Course ID: 003934
Emergency Medical Technician (EMT)
Covers all knowledge aspects of trauma care as outlined by national standards, created by federal guideline considered to be the responsibilities of ambulance operations. Includes typical anatomy and physiology, patient assessment, care for respiratory and cardiac emergencies, control of bleeding, application of dressing and bandages, treatment for traumatic shock; care for fractures, dislocation, sprains and strains; medical emergencies; emergency childbirth; burns and heat emergencies; environmental emergencies; principles of vehicle rescue; transportation of patients and general operations of ambulance systems. Pre-requisite: Consent of Instructor Components: Lecture 6 credits (150 contact hours

FRS 2062(1) Course ID: 003935
Managing Company Operations: Decision Making
Meets the needs of fire officers and crew leaders with responsibilities to manage the operations of one or more companies in structural firefighting operations. Includes preparation for response, decision making, and tactical operations. Includes, as the foundation of the course, an extensive unit of simulation to provide application of concepts and the development of skills. Provides an effective approach to command decision making and organization. Focuses on a review of the command sequence and an overview of incident command for structural firefighting. Pre-requisite: Consent of Instructor. Lecture: 1 credit (15 hours). Components: Lecture

FRS 2063(1) Course ID: 003936
Instructional Techniques for Company Officers
Designed for company officers and other fire or rescue service personnel with the responsibilities for conducting periodic company level or small unit training. Introduces the participant to basic instructional concepts and techniques. Emphasizes teaching principles and techniques applicable to fire and rescue service training. Includes effective communication, teaching from lesson plans, methods of instruction with emphasis on skills training, and adult learning. Pre-requisite: (FRS 101 and FRS 102 and FRS 103 and FRS 104 and FRS 201 and FRS 202 and FRS 203) or Consent of Instructor. Lecture: 1 credit (15 contact hours). Components: Laboratory, Lecture

FRS 2071(3.5) Course ID: 003937
Company Officer
Involves information and activities needed to meet the minimum standards of Fire Service Company Officers in practicing competencies relative to administrative and incident resolution consistent with National Fire Protection Association Code 1021. Pre-requisite: (FRS 101 and FRS 102 and FRS 103 and FRS 104 and FRS 105 and FRS 201 and FRS 202 and FRS 203) or Consent of Instructor. Lecture: 3.5 credits (52 contact hours). Components: Lecture

FRS 2072(0.9) Course ID: 003938
Incident Command System (ICS)
Meets the needs of fire officers and managers with responsibilities to use, develop, implement and/or function within a departmental Emergency Management Systems. Addresses the need for incident management systems, an overview of the structure and expandability of ICS, an understanding of the command skills needed by departmental officers to effectively use ICS, guidelines and scenario practice on how to apply ICS, and guidelines and resource information for setting up and implementing a departmental ICS. Lecture: 0.9 credits (14 contact hours). Components: Lecture

FRS 2073(0.8) Course ID: 003939
Leadership I: Strategies for Company Success
Designed to meet the needs of the company officer. Provides the participant with basic skills and tools needed to effectively lead as a fire service environment. Addresses techniques and approaches to problem-solving, identifying and assessing the needs of the fire company subordinate, running meetings effectively in the fire service environment, and decision-making for the company officer. Pre-requisite: (FRS 101 and FRS 102 and FRS 103 and FRS 104 and FRS 105 and FRS 201 and FRS 202 and FRS 203) or Consent of Instructor. Lecture: 0.8 credits (12 contact hours). Components: Lecture

FRS 2074(0.8) Course ID: 003940
Fire/Arson Detection (Arson I)
Designed for fire officers and firefighters to improve their skills in determining fire causes at the fire scene. Begins with the study of the motivation of the arsonist and progresses through to the prosecution of the crime of arson. Includes the goal of providing appropriate training to the firefighter and fire officer so as to make an impact in reducing arson throughout the nation. Pre-requisite: (FRS 101 and FRS 102 and FRS 103 and FRS 104 and FRS 105 and FRS 201 and FRS 202 and FRS 203) or Consent of Instructor. Lecture: 0.8 credits (12 contact hours). Components: Lecture

FRS 2091(0.5) Course ID: 003925
Pump Operations II
Includes the minimum requirements of professional competence of fire service pump operators. Pre-requisite: FRS 2023 or Consent of Instructor. Lecture: 0.5 credits (8 contact hours). Components: Lecture

FRS 2032(0.8) Course ID: 003926
Driver's Training
Includes the minimum requirements of professional competence required for service as a fire apparatus driver. Pre-requisite: FRS 2011 and FRS 2013 and Valid Driver License. 

FRS 2033(0.2) Course ID: 003927
Overhaul II
Includes information pertaining to overhaul including safety precautions, indicators of structural instability, the preservation of evidence and the procedures for restoration of the fire premises. Pre-requisite: FRS 1044 or Consent of Instructor. Lecture: 0.2 credits (3 contact hours). Components: Lecture

FRS 2034(0.3) Course ID: 003928
Fire Alarms and Communications II
Discusses the policies and procedures concerning ordering and transmitting of multiple alarms and supervisory alarm equipment. Pre-requisite: FRS 1045 or Consent of Instructor. Lecture: 0.3 credits (5 contact hours). Components: Lecture

FRS 2035(0.5) Course ID: 003929
Sprinklers II
Promotes increased knowledge of various types of sprinkler systems and the working of these systems. Pre-requisite: FRS 1048 or Consent of Instructor. Lecture: 0.5 credits (7 contact hours). Components: Lecture

FRS 2036(0.7) Course ID: 003930
Practicum
Provides supervised on-the-job work experience related to the student’s educational objectives. Students participating in the practicum do not receive compensation. Pre-requisite: FRS 1049 or FRS 1050 or Consent of Instructor. Lecture: 0.7 credits (55 contact hours). Components: Practicum

FRS 2041(3) Course ID: 003931
First Responder (EMS)
Covers selected aspects of trauma care as outlined by the national standard created by federal guidelines and considered to be the responsibilities with emergency medical response missions, consisting of classroom and laboratory instructions. Involves typical anatomy and physiology; patient assessment, care for respiratory and cardiac emergencies; control of bleeding, application of dressing and bandages, treatment for traumatic shock; care for fractures, dislocation, sprains and strains; medical emergencies; emergency childbirth; burns and heat emergencies; environmental emergencies; principles of vehicle rescue; transportation of patient, and general operations of emergency medical services. Lecture: 3 credits (45 contact hours). Components: Lecture

FRS 2051(0.5) Course ID: 003932
Fire Prevention, Public Education and Fire Cause Determination II
Relates to prefer planning, fire incident reports, building fire safety surveys, school exit drills, home safety programs, common fire hazards, fire cause determination, protection and detection systems and identification of structural deficiencies that could cause fires. Pre-requisite: FRS 2026 or Consent of Instructor Lecture: 0.5 credits (8 contact hours). Components: Lecture

FRS 2052(1.1) Course ID: 003958
Firefighter Survival & Rescue
This intensive training course was developed in response to the tragic deaths of many firefighters across the nation in the past several years. Many of those who perished did
FRT 98(0.2 - 6) Course ID: 004164
Special Topics in Rescue
This course includes subjects related to technical rescue services, to include but not limited to: vehicle rescue, confined space rescue, high angle rescue, water rescue, and farm rescue.
Components: Lecture
Attributes: Technical

FRT 99(0.2 - 6) Course ID: 004163
Special Topics in Firefighting
This course includes subjects related to fire department services, to include but not limited to: fire prevention, fire suppression, company officer leadership, communications, building construction, and cause and origin investigations.
Components: Lecture
Attributes: Technical

FSI Forensic Science
FSI 110(3) Course ID: 015771
Introduction to Forensic Science with Laboratory
Introduces students to the field of forensic and investigative sciences. Focuses on the application of the scientific method of modern science to physical evidence analysis, including trace evidence, DNA analysis, ballistics, drug analysis, fibers, fingerprints, hair, tool marks, ink and other common discovery techniques. Pre-requisite: scores above the KCTCS developmental placement level or successful completion of the prescribed developmental course(s) or consent of instructor. Lecture: 2 credits (60 contact hours). Lab: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Other

FYE Achieving Academic Success
FYE 100(1) Course ID: 007399
Strategies for College Success
Introduces students to strategies and information that promote success in the college environment including educational planning, campus resources, and academic success skills. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Other, Course Also Offered in Modules

FYE 105(3) Course ID: 007213
Achieving Academic Success
Introduces new students to strategies that promote academic, interpersonal, and intrapersonal success in the college environment. Aims to foster a sense of belonging, promote engagement in the curricular and co-curricular life of the college, and provide opportunities for students to develop academic plans that align with career and life goals. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other, Course Also Offered in Modules

FYE 101(0.4) Course ID: 007400
Introduction to the College Campus
Introduces students to campus resources to promote academic and personal success. Lecture: 0.4 credits (6 contact hours).
Components: Lecture

FYE 1002(0.3) Course ID: 007401
Self-Management Skills
Introduces students to strategies and resources to promote personal responsibility for self-management skills. Lecture: 0.3 credits (4.5 contact hours).
Components: Lecture

FYE 1003(0.3) Course ID: 007402
Academic and Career Choices
Introduces students to skills and resources to promote development of academic and career choices. Lecture: 0.3 credits (4.5 contact hours).
Components: Lecture

FYE 1051(1) Course ID: 007403
Orientation to College
Introduces students to college policies, departments, student organizations, and technology to promote academic and personal success. Lecture: 1.0 credit (15 contact hours).
Components: Laboratory

FYE 1052(1) Course ID: 007404
Education and Career Planning
Introduces students to skills and resources needed to achieve academic and career success. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

FYE 1053(1) Course ID: 007405
Academic, Financial, and Personal Skills
Introduces students to skills and resources needed to develop responsibility for personal, classroom and academic success. Lecture: 1.0 credit (15 contact hours).
Components: Lecture, Global Studies

Gen 91(3) Course ID: 007368
Foundations of Information Literacy
Introduces information literacy skills. Focuses on skills related to defining information needs, finding sources, using information to solve problems, organizing and presenting information, and evaluation. Pre-requisite: COMPASS Reading Score of 60+ OR ENGLISH Score of 35+ Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - Reading

GEN 100(1) Course ID: 000871
Introduction to College
Introduces new students to college and college life, support services provided by the college, techniques for academic success, and career exploration. Lecture: 1.0 credit hour (15 contact hours).
Components: Lecture
Attributes: Other, Course Also Offered in Modules

GEN 102(3) Course ID: 000872
Foundations of Learning
Presents strategies which promote academic and personal success in college, including utilizing campus resources, learning and memory, self-management, critical reading, critical thinking, classroom skills, and career exploration. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

GEN 103(1) Course ID: 005328
Instructor Consent Required
Principles of Peer Mentoring
Focuses on the study of issues, topics, and strategies related to mentoring first-year students. Relevant student development theory is highlighted. Prepares peer mentors to assist in teaching a section of GEN 100. Pre-requisite: Sophomore status and consent of instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Other

GEN 104(2) Course ID: 005329
Instructor Consent Required
Applied Principles of Peer Mentoring
Focuses on the study of issues, topics, and strategies related to mentoring first-year students. Prepares peer mentors to assist in teaching 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 practice concepts while developing an appreciation of service. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other

GEN 121(1) Course ID: 003871
The Exemplary Tutor
Trains college students to be effective tutors by introducing ethics and philosophy of tutor-tutee relationships and concepts of questioning, learning styles, problem solving, active listening, goal setting, and critical thinking. Can be taken 1 time for a total of 1 credit. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Other

GEN 123(1 - 3) Course ID: 003872
The Exemplary Reading Tutor
Provides credit for students wishing to tutor in reading or reading based courses as related to the reading expectations in the KDE Core Curriculum. Grants credit of 1 hour for 45 hours of tutoring, 2 credits for 90 hours of tutoring, and 3 hours for 120 hours of tutoring. May be repeated for a total of 6 credits. Pass/Fail. Pre-requisite: GEN 122
Components: Laboratory, Lecture
Attributes: Other

GEN 125(3) Course ID: 006590
Applied Meta-Thinking
Develops critical thinking skills and literacy processes across disciplines utilizing communication and appropriate applications in making self-paced, self-directed decisions and judgments. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, Course Also Offered in Modules

GEN 130(3) Course ID: 005055
Introduction to Information Resources
Provides basic concepts of the information society including different types of libraries and electronic resources, such as the internet, online databases, and information management software. Focuses on the nature of information, computer technology, and ethical computing issues. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other

GEN 131(1) Course ID: 005524
Basic Library Research and Resources
Introduces students to effective and efficient use of information resources through development of search statements/strategies, location and evaluation of information and information resources, and review and revision of search strategies as needed. Introduces students to the library catalog, print resources, databases, web resources and to the evaluation of information. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Other

GEN 140(3) Course ID: 000179
Instructor Consent Required
Development of Leadership
Introduces concepts of leadership and group dynamics, especially focusing on each student’s individual leadership philosophy, and providing opportunities for all students to develop leadership skills and potential. Pre-requisite: Consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, Course Also Offered in Modules
GEN 150(1) Course ID: 000589
Basic Computer Skills
Provides an introduction to commonly-used computing functions, emphasizing information processing, hands-on experience, and software packages. (This course does not meet the KCTCS computer literacy requirement.)
Components: Laboratory, Lecture 1 credit (15 contact hours)
Attributes: Computer Literacy, Other

GEN 175(3) Course ID: 006594
Career and Life Skills Development
Investigates the importance of appropriate social behavior and interaction in the workplace. Presents skills necessary for job search, self-management, and life and work transitions for adapting to changing demands and expectations. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other, Course Also Offered in Modules

GEN 225(3) Course ID: 006601
Lifelong Learning Applications
Develops and identifies overall life skills in complex systems as a whole to interact and communicate with others to produce successful outcomes. Pre-requisite: GE 175 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, Course Also Offered in Modules

GEN 240(3) Course ID: 015506
Leadership Applications
Connects the principles of transformational leadership with personal behavior by building a base of leadership theory for a practical philosophy. Engages students in directed projects and case studies to put theory into practice. Provides instruction directly related to integrity, planning, alignment, decision-making, fostering understanding, change-management, relationships, internal locus of control, trust, respect, image-projection, influence, and building a following. Pre-requisite: GEN 140 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other

GEN 276(1) Course ID: 004489
Employment and Professional Skills
Presents the process of effective career planning and develops the skills necessary for obtaining and maintaining employment. Lecture: 1 credit (15 contact hours).
Attributes: Lecture
Components: Technical

GEN 1021(1) Course ID: 007078
College Basics & Learning Styles
Presents an overview to campus and online resources, policies, and procedures including diversity. Presents strategies for identifying personal learning, self-management, and career exploration tools. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

GEN 1022(1) Course ID: 007079
Critical Reading and Thinking
Presents strategies and tools to promote critical reading and thinking. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

GEN 1023(1) Course ID: 007080
Classroom Skills and Test-taking
Presents strategies and tools to promote classroom and test-taking skills. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

GEN 1251(1) Course ID: 006591
Transmission Connections
Introduces various forms of communication. Provides skills for understanding verbal and nonverbal communication and reflection on experiences. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

GEN 1252(1) Course ID: 006592
Learning Skills Application
Provides skills for thinking critically and creatively, connecting prior learning, using reciprocal relationships, and interpreting information. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

GEN 1253(1) Course ID: 006593
Effective Decision Making
Provides skills to analyze and evaluate judgments, ethical considerations, and new and diverse perspectives and points of view. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

GEN 1401(1) Course ID: 015781
Philosophy and Self-Awareness
Presents concepts of leadership and group dynamics, especially focusing on each student's individual leadership philosophy. Provides opportunities for all students to develop individual potential and skills related to servant leadership and ethics. Pre-requisite: Consent of instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

GEN 1402(1) Course ID: 015782
Exploration and Analysis
Presents concepts of leadership and group dynamics, especially focusing on each student's individual leadership philosophy. Provides opportunities for all students to develop individual potential and skills related to visioning, trust and team-building, goal-setting, and decision-making. Pre-requisite: GEN 1401. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

GEN 1403(1) Course ID: 015783
Summary and Reflection
Presents concepts of leadership and group dynamics, especially focusing on each student's individual leadership philosophy. Provides opportunities for all students to develop individual potential and skills related to conflict resolution, management of change, empowerment of others and time management. Includes leadership course summary and reflection. Pre-requisite: GEN 1402. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

GEN 1751(0.4) Course ID: 006595
Career Planning Using Technology
Explores career search and selection enhanced by the development of an electronic portfolio. Lecture: 0.4 credits (6.0 contact hours).
Components: Lecture

GEN 1752(0.4) Course ID: 006596
Exploring Employment Strategies
Explores elements of the pre-employment process. Lecture: 0.4 credits (6.0 contact hours).
Components: Lecture

GEN 1753(0.4) Course ID: 006597
Business Basics
Presents basic business, math, and communication skills for the workplace. Lecture: 0.4 credits (6.0 contact hours).
Components: Lecture

GEN 1754(0.4) Course ID: 006598
Customer Service
Presents basic approaches for effective customer service skills. Lecture: 0.4 credits (6.0 contact hours).
Components: Lecture

GEN 1755(1) Course ID: 006599
Workplace Transitions
Presents employment and life skills including social interaction through workplace diversity, problem solving, working in teams, business procedures, and performance processes. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

GEN 1756(0.4) Course ID: 006600
Workplace Skills
Explains the importance of lifelong learning, flexibility, adaptability, and positive employment behaviors. Lecture: 0.4 credits (6.0 contact hours).
Components: Lecture

GEN 2251(0.4) Course ID: 006602
Acquiring Digital Skills
Access, manage, integrate, evaluate, and create digital technology and information. Pre-requisite: GE 175 or Consent of Instructor. Lecture: 0.4 credits (6 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

GEN 2252(0.6) Course ID: 006603
Project / Time Management Basics
Identify project and time management strategies to set appropriate goals and timelines. Pre-requisite: GE 2251 or Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

GEN 2253(0.3) Course ID: 006604
Leadership Overview
Provides an overview of leadership responsibility and the ethical considerations that impact decisions. Pre-requisite: GE 2251 or Consent of Instructor. Lecture: 0.3 credits (4.5 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

GEN 2254(0.4) Course ID: 006605
Global Awareness
Provides skills for reasoning, open dialogue with diverse cultures, and complex systems. Pre-requisite: GE 2251 or Consent of Instructor. Lecture: 0.4 credits (6 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

GEN 2255(0.3) Course ID: 006606
Financial Literacy
Provides skills for managing financial resources and making appropriate economic choices. Pre-requisite: GE 2251 or Consent of Instructor. Lecture: 0.3 credits (4.5 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

GEN 2256(0.3) Course ID: 006607
Civic Engagement
Develops students' community service by enabling knowledge about civic engagement and government processes. Pre-requisite: GE 2251 or Consent of Instructor. Lecture: 0.3 credits (4.5 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

GEN 2257(0.4) Course ID: 006608
Social Respect and Collaboration
Provides knowledge about cultural differences, value of diverse teams, and social respect. Pre-requisite: GE 2251 or Consent of Instructor. Lecture: 0.4 credits (6 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

GEN 2258(0.3) Course ID: 006609
Self-directed Learning
Identifies skills and strategies for being a self-learner through life and presents the importance of lifelong learning. Pre-requisite: GE 2251 or Consent of Instructor. Lecture: 0.3 credits (4.5 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules
GEO 130(3) Course ID: 000351
Earth's Physical Environment
A course exploring the fundamental characteristics of earth's physical environment. Emphasis is placed on identifying interrelationships between atmospheric processes involving energy, pressure, and moisture; weather and climate; and terrestrial processes of vegetative biomes, soils, and landscape formation and change. Fulfills elementary certification requirements in education, and USP cross-disciplinary requirement. 3 credits (45 contact hours)
Components: Lecture Attributes: SN - Science

GEO 152(3) Course ID: 000398
Regional Geography of the World
Introduces regional geography with a focus on the world's physical and human landscapes. Emphasizes connections between regions and how each region affects and is affected by global issues such as economic restructuring, food production, and environmental change. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: SB - Social Behavior Science

GEO 160(3) Course ID: 000422
Lands and Peoples of the Non-Western World
Provides a geographic study of world regions defined conceptually and historically as non-Western. Includes global patterns of social, cultural, economic and political differences between the West and Non-West and the processes key to making the Non-Western world, such as colonialism and imperialism. Considers significant current issues including sustainable development, environmental, human rights, and gender relations.
Components: Lecture 3 credits (45 contact hours) Attributes: 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: SB - Social Behavior Science, University Course (University of Kentucky)

GEO 172(3) Course ID: 000158
Human Geography
Presents a study of the spatial distributions of significant elements of human occupancy of the earth's surface including basic concepts of diffusion, population, migration, settlement forms, land utilization, and impact of technology on human occupancy of the earth. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: SB - Social Behavior Science

GEO 210(3) Course ID: 000610
Pollution, Hazards, and Environmental Management
An introduction to environmental systems such as weather and climate, vegetation, land forms and soils, and how the quality of these systems is modified by human use. Resource issues discussed include: atmospheric pollution and global warming; groundwater; flooding, and flood plain management; volcanic activity and earthquakes; and biospheric processes associated with deforestation and lake eutrophication. Case studies based upon important environmental problems illustrate how human activity and environmental systems interrelate. Fulfills USP Cross-Disciplinary requirement. 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 developed regions. Emphasizes the spatial, social, economic, and political processes of major world cities. Includes a specific focus on contemporary urban problems.
Components: Lecture 3 credits (45 contact hours) Attributes: SB - Social Behavior Science

GEO 240(3) Course ID: 000434
Geography and Gender
This course presents a geographic approach to the study of gender relations, emphasizing the role of space and place in shaping the diversity of gender relations throughout the world. Stresses the importance of gender relations in understanding a variety of issues through the application of case study analysis. Includes the design and use of urban and rural environments, “Third World” development, regional economic restructuring, changing political geographies, and migration.
Components: Lecture 3 credits (45 contact hours) Attributes: SB - Social Behavior Science

GEO 251(3) Course ID: 000659
Weather and Climate
A survey of the atmospheric controls associated with local, regional, and global weather and climate variability. Includes fundamental coverage of the physics and chemistry of energy, gases, pressure and moisture, with a goal of promoting understanding of general weather analysis and forecasting, severe storms, atmospheric pollution, descriptive climatology, and global climate change. Pre-requisite: GEO 130 or consent of instructor. 3 credits (45 contact hours)
Components: Lecture Attributes: SN - Science

GER Germanic Languages and Literature

GER 101(4) Course ID: 000884
Elementary German I
Includes fundamentals of German with development of the four basic skills: reading, writing, listening, and speaking.
Components: Lecture 4 credits (60 contact hours) 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.
Components: Lecture 4 credits (60 contact hours) 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.
Components: Lecture 3 credits (45 contact hours) 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.
Components: Lecture 3 credits (45 contact hours) Attributes: Foreign Language, Cultural Studies

GIS Geographic Information Systems

GIS 110(3) Course ID: 004761
Spatial Data Analysis and Remote Sensing Techniques
Introduces spatial analysis, the interpretation of map data, and the use of handheld Global Positioning Systems to collect data. Intended for those interested in a career in civil engineering or surveying. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (15 contact hours). Components: Laboratory, Lecture Attributes: Technical

GIS 120(3) 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 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

GLY Geological Sciences

GLY 101(3) Course ID: 000878
Physical Geology
Introduces the principles of physical geology, including study of minerals and rocks, volcanoes and earthquakes, plate tectonics, and the landforms of Earth's surface. Requires concurrent enrollment in GLY 111. 3 credits (45 contact hours).
Components: Lecture Attributes: SN - Science

GLY 102(3) Course ID: 000757
Historical Geology
Covers the history of the Earth: its origin as part of the solar system, and subsequent evolution of the atmosphere, continents, seas, and life as interpreted from the rock record. Includes in addition to lecture illustrations, field trips and out-of-class exercises. Gives attention to the development of the basic principles used in interpretation. Pre-requisite: GLY 101 and GLY 111 or consent of the instructor. Co-requisite: GLY 112 3 credits (45 contact hours).
Components: Lecture Attributes: SN - Science

GLY 110(3) Course ID: 002218
Environmental Geology
Introduces and applies basic geological concepts to current environmental issues including the availability and use of water and soil resources, pollution causes, effects and solutions, and causes and prediction of environmental hazards including floods, landslides, subsidence, earthquakes and volcanoes. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: SN - Science

GLY 111(1) Course ID: 000544
Physical Geology Laboratory
Identify minerals and rocks in hand 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 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 extrayrestrial causes for their rise to dominance and sudden fall. Lecture: 3 hours. 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

HCI 200(3)  Course ID: 007420
Management of Health Care Information and System Security
Provides students with fundamental concepts in the discipline of health care informatics security systems that are required in the management of electronic data. Prepares the student to maintain data information system security within established standards of practice. Pre-requisite: HCI 200 Introduction to Health Care Informatics or Instructor Consent. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other

HCI 220(3)  Course ID: 007421
Database Systems In Health Care
Provides students with the concepts that are fundamental to the field of health care informatics database principles. Includes the development of data set management, the importance of accurate data input and mapping information extracted from the health care documentation system. Pre-requisite: HCI 200 Introduction to Health Care Informatics or instructor consent. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other

HED Heavy Equipment Operation

HED 106(7)  Course ID: 001522
Motograder Operator
Examines a broad base of skills required to operate heavy equipment with an emphasis on safety. Operation of a Motor-Grader will be learned by students. Pre-requisite: DIT 103. Lab: 7.0 credits (315 contact hours).
Components: Laboratory
Attributes: Technical

HED 107(7)  Course ID: 015676
Utility Tractor Loader Operator
Examines a broad base of skills required to operate heavy equipment with an emphasis on safety. Focuses on job awareness and industry requirements. Permits experience on dump truck and utility tractor loader. Pre-requisite or Co-requisite: DIT 103. Lab: 7.0 credits (210 contact hours).
Components: Laboratory
Attributes: Technical

HED 110(7)  Course ID: 015677
Power Shovel Backhoe Operator
Presents a background in the operation, maintenance, and safety considerations for a dump truck and power shovel backhoe. Pre-requisite or Co-requisite: DIT 103. Lab: 7.0 credits (210 contact hours).
Components: Laboratory
Attributes: Technical

HFL Healthcare Facility Management

HFL 100(3)  Course ID: 015593
Introduction to Healthcare Facility Management
Introduces students to Healthcare Facility Leadership by presenting an overview of the history and development of healthcare engineering. The student will: learn the importance of compliance with the various codes and standards applicable to the healthcare facility environment; explore the driving factors affecting the operations and maintenance of health care facilities; review the complexity of delivering engineering in a patient centered environment; gain understanding of the complex structure and reporting relationships that exist in the healthcare industry; understand how the facility environment impacts regulatory requirements, clinical needs, and financial bottom line of healthcare; and gain an understanding of his/her role within the facility management department and the hospital setting. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

Hydraulics and Ethics in Health Care Informatics
Presents issues that the health care system faces in relation to legal issues, ethical dilemmas and regulatory and practice standards surrounding the real-time electronic health record and health care information systems. Pre-requisite: HCI 200 Introduction to Health Care Informatics or instructor consent. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other

Legalities and Ethics in Health Care Informatics
Introduces students to the management of health care information and management of that technology within the health care system. Pre-requisite: HCI 200, HCI 210, HCI 220, and HCI 230. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Other

Legalities and Ethics in Health Care Informatics
Introduces students to the management of health care information and management of that technology within the health care system. Pre-requisite: HCI 200, HCI 210, HCI 220, and HCI 230. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Other

Legalities and Ethics in Health Care Informatics
Introduces students to the management of health care information and management of that technology within the health care system. Pre-requisite: HCI 200, HCI 210, HCI 220, and HCI 230. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Other

Legalities and Ethics in Health Care Informatics
Introduces students to the management of health care information and management of that technology within the health care system. Pre-requisite: HCI 200, HCI 210, HCI 220, and HCI 230. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Other

Special Problems I
Reinforces material presented in HEO 150, 200, and 250. Discusses job orientation, blueprint reading, and equipment operation. Pre-requisite or Co-requisite: DIT 103. Lab: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

Special Problems II
Reinforces material presented in HEO 150, 200, and 250. Discusses job orientation, blueprint reading, and equipment operation. Pre-requisite or Co-requisite: DIT 103. Lab: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

Special Problems II
Reinforces material presented in HEO 150, 200, and 250. Discusses job orientation, blueprint reading, and equipment operation. Pre-requisite or Co-requisite: DIT 103. Lab: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

Special Problems II
Reinforces material presented in HEO 150, 200, and 250. Discusses job orientation, blueprint reading, and equipment operation. Pre-requisite or Co-requisite: DIT 103. Lab: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

Special Problems II
Reinforces material presented in HEO 150, 200, and 250. Discusses job orientation, blueprint reading, and equipment operation. Pre-requisite or Co-requisite: DIT 103. Lab: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

Special Problems II
Reinforces material presented in HEO 150, 200, and 250. Discusses job orientation, blueprint reading, and equipment operation. Pre-requisite or Co-requisite: DIT 103. Lab: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

Special Problems II
Reinforces material presented in HEO 150, 200, and 250. Discusses job orientation, blueprint reading, and equipment operation. Pre-requisite or Co-requisite: DIT 103. Lab: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

Special Problems II
Reinforces material presented in HEO 150, 200, and 250. Discusses job orientation, blueprint reading, and equipment operation. Pre-requisite or Co-requisite: DIT 103. Lab: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

Special Problems II
Reinforces material presented in HEO 150, 200, and 250. Discusses job orientation, blueprint reading, and equipment operation. Pre-requisite or Co-requisite: DIT 103. Lab: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

Special Problems II
Reinforces material presented in HEO 150, 200, and 250. Discusses job orientation, blueprint reading, and equipment operation. Pre-requisite or Co-requisite: DIT 103. Lab: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical
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 data and complexity. Lecture: 2.0 credits (30 contact hours).
Components: Lecture Attributes: Technical

HFL 120(2) Course ID: 015663
Infection Control and Prevention
Examines the historical and evolving infection control complexities from both a clinical and physical environment perspective. Reviews changes the industry has taken to address this growing healthcare industry challenge. Studies how the physical environment and engineering practices during construction and maintenance impact infection control. Reviews infection control risk assessments and prevention documentation and techniques. Lecture 2.0 credits (30 contact hours).
Components: Lecture Attributes: Technical

HFL 130(3) Course ID: 015664
Compliance, Codes and Standards I
Introduces students to codes & standards, regulatory, and accreditation agencies in Healthcare. Takes into consideration local, state, and federal regulatory bodies such as Occupational Safety and Health Administration (OSHAA), 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 coordination documentation. Pre-requisite: HFL 100 Introduction to Healthcare Facility Management. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

HFL 140(2) Course ID: 015665
Maintenance and Operations I
Examines and reviews mechanical, electrical, plumbing, medical gas, fire protection, building envelope, medical, steam, and security systems that comprise most healthcare facilities. Reviews computer systems and software such as 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, design, and job descriptions. Pre-requisite: HFL 100 Introduction to Healthcare Facility Management. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

HFL 230(3) Course ID: 015667
Compliance, Codes and Standards II
Examines the major codes, standards and regulatory rules that apply to the healthcare industry. Examines. National Fire Protection Association (NFPA) 101, 110, 99, 25, 20, 10: Facility Guidelines Institute (FGI) Guidelines: The Joint Commission Standards for accreditation; and how to maintain standard specific documentation and checklists for accreditation surveys. Develops and maintains medical equipment and utility system programs. Develops and conducts functional local rounds and surveys. Develops standard specific policies and procedures, such as National Fire Protection Association (NFPA) 99 electrical equipment safety inspection requirements. Pre-requisite: HFL 130 Compliance, Codes and Standards I. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

HFL 240(3) Course ID: 015668
Maintenance and Operations II
Examines the administration and coordination of work order processes to include preventive maintenance, corrective maintenance, moves, and projects. Applies equipment risk assessments in developing a maintenance program. Tests, monitors, and documents air quality, air exchange, and pressure relationships. Maintains control access and key control systems. Manages policies and procedures. Develops competency-based training programs. Manages low voltage systems ([Nurse call, Closed Circuit Television System (CCTV), patient monitoring, Radio Frequency Identification (RFID) etc.]). Understands Performance Improvement (PI) processes. Pre-requisite: HFL 140 Maintenance and Operations I. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

HFL 250(3) Course ID: 015669
Planning, Design and Construction II
Examines the management, planning, monitoring, reporting, and closing out of projects. Emphasizes the management of drawing revisions, commissioning, equipment documentation, and hand off training. Details Change Order Request (COR) and Request For Information (RFI), as well as, reviewing the needs and requirements for space planning and allocation. Pre-requisite: HFL 150 Planning, Design and Construction I. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

HFL 260(3) Course ID: 015670
Healthcare Facilities Leadership Capstone I
Components: Lecture Attributes: Technical

HFL 270(3) Course ID: 015671
Healthcare Facilities Leadership Capstone II
Examines management of related healthcare engineering roles, such as fire safety, environment of care, waste management, emergency management, protection services, and environmental services. Examines management of Human Resource functions (e.g. competencies, disciplinary action, hiring, performance appraisals, terminations, scheduling, staff orientation, and job descriptions). Performs and participates in organizational strategic planning, SWOT (strengths, weaknesses, opportunities and threats) analysis, report writing and presentations. Examines the importance of networking and partnerships (e.g. peers, local authorities, state authorities, and industry experts). Pre-requisite: HFL 260 Healthcare Facilities Leadership Capstone I. Co-requisite: HFL 240 Maintenance and Operations II. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

HIM 102(3) Course ID: 004303
Archives Studies: Characteristics & Overview
This course provides an introduction to the profession of archives studies. In addition to the history, development, and nature of work in the profession; the basics of collections management and development, intellectual control, preservation, conservation, and technological applications will be presented. 3 credits (45 contact hours)
Components: Lecture Attributes: Technical

HIM 104(3) Course ID: 004304
Museum Studies: Characteristics & Overview
This course provides an introduction to the profession of museum studies. Course topics include the history, development, and nature of work in the profession; the basics of collections management and development; intellectual control; exhibit design; preservation; and technological applications. 3 credits (45 contact hours)
Components: Lecture Attributes: Technical

HIM 105(3) Course ID: 004305
Records Management: Characteristics & Overview
This course provides an introduction to the profession of records management. In addition to the history, development, and nature of work in the profession, the course will present the basics of files and forms management, records inventory and analysis, scheduling and reprography, electronic records and record center operation. 3 credits (45 contact hours)
Components: Lecture Attributes: Technical

HIM 210(3) Course ID: 004306
Archives Studies: Appraisal & Accessioning
This course provides an in-depth examination of the information appraisal and accession process in archives work. Topics covered include intellectual content, documentation strategies, appraisal theories, and accessioning practices. Students are expected to complete an accession record, including records transmittal form, deed of gift, and accession form. Pre-requisite: HIM 102. 3 credits (45 contact hours)
Components: Lecture Attributes: Technical

HIM 214(3) Course ID: 004308
Archives Studies: Preservation & Conservation
This course provides an in-depth analysis of the conservation and preservation issues confronting archive staff. Included in this course are the impact of environmental conditions upon collections, problems associated with various records media and formats, conservation and working with conservators, security, and emergency mitigation and response procedures. Each student is expected to prepare an archives emergency response plan. Pre-requisite: HIM 210. 3 credits (45 contact hours)
Components: Lecture Attributes: Technical

HIM 216(3) Course ID: 004309
Archives Studies: Automation & Electronic Records
This course is designed to provide students with an in-depth understanding of automation practices for archives. Topics covered in this course include database theory, design and development, as well as data field content and structure as they relate to archives automation. In addition to creating a complete archival catalog record, students will generate an automated accession report, collection description with appended image, and container list. Pre-requisite: HIM 102. Components: Lecture Attributes: Technical
HIM 232(3)  Course ID: 004311  Museum Studies: Conservation and Preservation
This course provides an in-depth analysis of the conservation and preservation issues confronting museum staff. Included in this course are the impact of environmental condition upon collections, problems associated with historic structures, artifact conservation and working with conservators, security, and emergency mitigation and response procedures. Each student is expected to prepare a museum emergency response plan. Pre-requisite: HIM 104. 3 credits (45 contact hours)
Components: Lecture  Attributes: Technical

HIM 252(3)  Course ID: 004315  Electronic Records Management
This course provides an extensive analysis of the issues presented in the display of a museum’s collections. Topics covered include exhibit planning, design, fabrication, installation, and interpretation. Ethical considerations and cultural sensitivity issues regarding the presentation of artifacts will also be addressed. Pre-requisite: HIM 104. 3 credits (45 contact hours)
Components: Lecture  Attributes: Technical

HIS 104(3)  Course ID: 000860  A History of Europe Through the Mid-Seventeenth Century
Surveys the development of European politics, society, and culture from the beginnings of civilization through the Age of Religious Conflict. Lecture: 3 credits (45 contact hours).
Components: Lecture  Attributes: AH - Arts and Humanities

HIS 105(3)  Course ID: 000834  A History of Europe from the Mid-Seventeenth Century to the Present
Surveys the development of European politics, society, and culture from the Age of Absolutism to the present. Lecture: 3 credits (45 contact hours).
Components: Lecture  Attributes: AH - Arts and Humanities

HIS 112(3)  Course ID: 000439  History of the United States from Colonial Times to 1810
Surveys the social, economic, political and cultural development of the United States from precolonial times to 1810 with an emphasis on pre-colonial societies, the Iberian kingdoms in the Age of Expansion, the conquest and colonization of the indigenous cultures of the New World, the establishment of Spanish and Portuguese institutions, the relations between the Church and the State, the encomienda and the hacienda, slavery and the impact of the Bourbon Reforms on Latin America. 3 credits (45 contact hours)
Components: Lecture  Attributes: AH - Arts and Humanities

HIS 206(3)  Course ID: 002219  History of Colonial Latin America
Surveys the social, economic, political and cultural development of Latin America from the fifteenth century to 1810 with an emphasis on pre-Columbian societies, the Iberian kingdoms in the Age of Expansion, the conquest and colonization of the indigenous cultures of the New World, the establishment of Spanish and Portuguese institutions, the relations between the Church and the State, the encomienda and the hacienda, slavery and the impact of the Bourbon Reforms on Latin America. 3 credits (45 contact hours)
Components: Lecture  Attributes: AH - Arts and Humanities

HIS 250(3)  Course ID: 004310  Museum Studies: Collections Care & Management
This course provides an in-depth analysis of the needs of museum collections. Topics covered include collection policies and development, accessioning, registration, preservation, exhibiting and ethical consideration regarding deaccessioning and collection sales. Pre-requisite: HIM 104. 3 credits (45 contact hours)
Components: Lecture  Attributes: Technical

HIS 207(3)  Course ID: 002220  History Modern Latin America, 1810 to Present
Covers the history of the Latin American nations focusing on their social, economic, political and cultural development. Emphasizes the history of the independence movements, nation building, the struggle for modernization, dependency and the phenomenon of revolution since 1810. 3 credits (45 contact hours)
Components: Lecture  Attributes: AH - Arts and Humanities

HIS 215(3)  Course ID: 015616  Historical Perspectives on Prisons and Police Work
Examines historical development of law codes, police work and prisons since the ancient world, with emphasis on the early modern period to the present. Develops an understanding of current practices in criminology, placing emphasis on the evolving conceptions of the causes of and cures for criminal behavior, and the professionalization of police and corrections personnel. Lecture: 3.0 credits (45 contact hours).
Components: Lecture  Attributes: AH - Arts and Humanities, Other

HIS 220(3)  Course ID: 007417  Native American History: Pre-Contact to 1865
Surveys the struggle of Native Americans from pre-colonial times to 1865. Emphasizes the indigenous Native American culture and society, the Columbian and biological exchange, Indian-Anglo cultural interactions, the construction and reconstruction of Indian identities, U.S. Indian policy development, and forced Indian removal. Lecture: 3.0 credits (45 contact hours).
Components: Lecture  Attributes: Cultural Studies, AH - Arts and Humanities

HIS 221(3)  Course ID: 007418  Native American History: 1865 to Present
Surveys the struggle of Native Americans from 1865 to the present times. Emphasizes the indigenous Native American culture and society, Indian-Anglo cultural interactions, the construction and reconstruction of Indian identities, and the struggles for the Great Plains and the Great Basin. Assesses the U.S. Indian policy development in relation to forced Indian removal, Americanization plan, educational assault on Indian children, termination policy, and sovereignty. Lecture: 3.0 credits (45 contact hours).
Components: Lecture  Attributes: Cultural Studies, AH - Arts and Humanities

HIS 230(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: AH - Arts and Humanities

HIS 240(3)  Course ID: 000439  History of Kentucky
Surveys the chief periods in Kentucky’s growth and development from 1750 to the present focusing on the social, economic, cultural, and political trends of each region. 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. 3 credits (45 contact hours)
Components: Lecture  Attributes: AH - Arts and Humanities
<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Prerequisites</th>
<th>Contact Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIS 248(3)</td>
<td>History of Islam and Middle East Peoples, 1250 to the Present</td>
<td>Surveys the religion and institutions of the Islamic world in the Middle East with emphasis on the Mongol, Ottoman, Safavid, and Qajar Empires. Includes the demise of these empires, the response of the Middle East peoples to European imperialism, and the development of the Middle East since 1250. 3 credits (45 contact hours).</td>
<td>Components: Lecture Attributions: AH - Arts and Humanities</td>
</tr>
<tr>
<td>HIS 254(3)</td>
<td>History of Sub-Saharan Africa</td>
<td>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. 3 credits (45 contact hours).</td>
<td>Components: Lecture Attributions: AH - Arts and Humanities</td>
</tr>
<tr>
<td>HIS 260(3)</td>
<td>African American History to 1865</td>
<td>Studies the African American experience through the Civil War. Examines African heritage, slavery, and growth of African American institutions. 3 credits (45 contact hours).</td>
<td>Components: Lecture Attributions: AH - Arts and Humanities</td>
</tr>
<tr>
<td>HIS 261(3)</td>
<td>African-American History 1865 - Present</td>
<td>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. 3 credits (45 contact hours).</td>
<td>Components: Lecture Attributions: AH - Arts and Humanities</td>
</tr>
<tr>
<td>HIS 265(3)</td>
<td>History of Women in America</td>
<td>Surveys the history of American women, with particular emphasis on the mid-19th century to the present. Includes the major themes of family, work, social ideas about women, and feminism. Pre-requisite: HIS 109 or consent of instructor. 3 credits (45 contact hours).</td>
<td>Components: Lecture Attributions: AH - Arts and Humanities</td>
</tr>
<tr>
<td>HIS 266(3)</td>
<td>History of American Women to 1920</td>
<td>Emphasizes the fight for women’s suffrage to 1920. Includes African American women, immigrant women, the changing nature of the family and work, and societal ideas about women. Lecture: 3 credits (45 contact hours).</td>
<td>Components: Lecture Attributions: AH - Arts and Humanities</td>
</tr>
<tr>
<td>HIS 267(3)</td>
<td>History of American Women from 1920</td>
<td>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).</td>
<td>Components: Lecture Attributions: Technical</td>
</tr>
<tr>
<td>HIS 271(3)</td>
<td>Medieval Europe</td>
<td>Surveys European history from the fourth century through the fifteenth century. Lecture: 3 credits (45 contact hours).</td>
<td>Components: Lecture Attributions: AH - Arts and Humanities</td>
</tr>
<tr>
<td>HIS 295(3)</td>
<td>East Asia to 1800</td>
<td>Presents a survey of Chinese, Japanese, and Korean history from the earliest times to 1800. Emphasizes political, economic, social, and intellectual developments. 3 credits (45 contact hours).</td>
<td>Components: Lecture Attributions: Cultural Studies, AH - Arts and Humanities</td>
</tr>
<tr>
<td>HIS 296(3)</td>
<td>History of Asia II</td>
<td>Surveys the major civilizations of Asia. Focuses on the key political, social and cultural developments of the major peoples from the beginnings of western influence in Asia to the present. Pre-requisite: Sophomore standing or consent of instructor. Lecture: 3 credits (45 contact hours).</td>
<td>Components: Lecture Attributions: AH - Arts and Humanities</td>
</tr>
<tr>
<td>HIS 299(1 - 3)</td>
<td>Special Topics in History: (Topic)</td>
<td>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.</td>
<td>Course ID: 005221 Instructor Consent Required</td>
</tr>
<tr>
<td>HIS 1081(0.75)</td>
<td>Colonial America</td>
<td>Examines key political, economic, and social topics from the pre-colonial period through the settlement and colonization that have significantly influenced the American experience. Lecture: 0.75 credit (11.25 contact hours).</td>
<td>Components: Lecture</td>
</tr>
<tr>
<td>HIS 1082(0.75)</td>
<td>The Early Nationalist Period</td>
<td>Examines key political, economic, and social topics from the Revolution through the post-colonial period that have significantly influenced the American experience. Lecture: 0.75 credit (11.25 contact hours).</td>
<td>Components: Lecture</td>
</tr>
<tr>
<td>HIS 1083(0.75)</td>
<td>Growth and Prosperity</td>
<td>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).</td>
<td>Components: Lecture</td>
</tr>
<tr>
<td>HIS 1084(0.75)</td>
<td>Sectionalism and Civil War</td>
<td>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).</td>
<td>Components: Lecture</td>
</tr>
<tr>
<td>HIS 1091(0.75)</td>
<td>History of the United States through the Gilded Age</td>
<td>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).</td>
<td>Components: Lecture</td>
</tr>
<tr>
<td>HIS 1092(0.75)</td>
<td>History of the United States from Imperialism through World War I</td>
<td>Examines key political, economic, and social topics from the Progressive Era through World I and the 1920s that have significantly influenced the American experience. Pre-requisite: HIS 1091. Lecture: 0.75 credit (11.25 contact hours).</td>
<td>Components: Lecture</td>
</tr>
<tr>
<td>HIS 1093(0.75)</td>
<td>History of the United States from the Twenties to the Onset of the Cold War</td>
<td>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).</td>
<td>Components: Lecture</td>
</tr>
<tr>
<td>HIS 1094(0.75)</td>
<td>History of the United States during the Cold War to the Present</td>
<td>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).</td>
<td>Components: Lecture</td>
</tr>
<tr>
<td>HIT 100(3)</td>
<td>Health Information Technology Introduction</td>
<td>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: [HIT 130 or BIO 137] and (CLA 131 or AHS 115 or MIT 103). Minimum grade of C. Lecture: 3 credits (45 contact hours).</td>
<td>Components: Lecture Attributes: Technical</td>
</tr>
<tr>
<td>HIT 104(3)</td>
<td>Pathophysiology of Human Disease</td>
<td>An overview of pathophysiology content and teaching materials as they relate to the health information field. A review of disease terminology, pathology, clinical presentation, surgical and diagnostic procedures and treatment modalities. Pre-requisite: Admission to the Health Information Technology Program or Medical Record Coding Certificate Program or by special permission of the Program Coordinator and (CLA 131 or AHS 115 or OST 103) and (BIO 137) with a grade of C or better. Lecture: 3 credits (45 contact hours).</td>
<td>Components: Lecture Attributes: Technical</td>
</tr>
<tr>
<td>HIT 105(4)</td>
<td>Pathophysiology / Pharmacology for Health Information Professionals</td>
<td>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).</td>
<td>Components: Lecture Attributes: Technical</td>
</tr>
<tr>
<td>HIT 106(2)</td>
<td>Pharmacology for Health Information Professionals</td>
<td>Application of pharmacology to the treatment of human diseases and disorders as it relates to the field of health information technology. Pre-requisite: Admission to the Health Information Technology Program or Medical Record Coding Certificate Program or by special permission of the Program Coordinator and (CLA 131 or AHS 115 or MIT 103) and (BIO 137) with a grade of C or better. Lecture: 2 credits (30 contact hours).</td>
<td>Components: Lecture Attributes: Technical</td>
</tr>
<tr>
<td>HIT 108(4)</td>
<td>Clinical Classification Systems I</td>
<td>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).</td>
<td>Components: Laboratory Attributes: Technical</td>
</tr>
</tbody>
</table>
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 hours (15 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

HIT 114(2) Course ID: 004267
Clinical Practicum I
Includes the clinical practice of medical records review and documentation within a health information department. Provides students with the opportunity to assist personnel in the legal and ethical collection and dissemination of health care data including the use of registries and indexes. Pre-requisite: Admission to the Health Information Technology Program or Medical Record Coding Certificate Program or by special permission of the Program Coordinator. Computer Literacy and (BIO 139 and HIT 100 and HIT 104 and HIT 106) with a grade of "C" or better. Practicum: 2.0 credits (90 contact hours).
Components: Practicum
Attributes: Technical

HIT 200(3) Course ID: 004268
Information Systems in Health Care
Covers the concepts of computer technology related to the healthcare industry and the tools and techniques for collecting, storing, retrieving, and analyzing health care data. Pre-requisite: Admission to the Health Information Technology Program or Medical Record Coding Specialist Certificate or by special permission of the Program Coordinator and (HIT 109 and HIT 110 and HIT 112). Minimum grade of C. Pre-requisite Or Co-requisite: CIT 130 or OST 240. Minimum grade of C. Lecture: 2.5 credits (37.5 contact hours); Laboratory: 0.5 credits (15 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

HIT 202(3) Course ID: 004259
Clinical Classification Systems II
Includes current Procedural Terminology (CPT) coding system and the different 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 204(2) Course ID: 004270
Quality Assessment In Health Information
Principles of quality assessment as they relate to health information technology. Includes data collection and analysis, implementation of quality improvement processes, and a review of regulatory and accrediting organization requirements. Pre-requisite: Admission to the Health Information Technology Program or Medical Record Coding Certificate Program or by special permission of the Program Coordinator. Successful completion of (HIT 108 and HIT 110 and HIT 112 and HIT 114) with a grade of C or better. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical

HIT 205(3) Course ID: 007084
Quality Mgmt. & PI - Health Info
Examines principles of performance improvement as they relate to health information technology. Integrates data collection, analyses, evidence-based care, implementation of performance improvement processes, and the use of quality assurance, quality and payor requirements including payment. Pre-requisite or Co-requisite: HIT 109 and HIT 110. Minimum grade of C. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HIT 206(2) Course ID: 004271
Clinical Classification Systems III
This course introduces the advanced application of clinical classification systems in the reimbursement for health care services. Included in the course will be a review of fraud, abuse and regulatory agencies. Students will use a microcomputer and software to apply medical coding procedures. Pre-requisite: Admission to the Health Information Technology Program or Medical Record Coding Certificate Program or by special permission of the Program Coordinator. Completion of HIT 202 with a grade of C or better. Lecture: 1.5. This course introduces the advanced application of clinical classification systems in the reimbursement for health care services. Included in the course will be a review of fraud, abuse and regulatory agencies. Students will use a microcomputer and software to apply medical coding procedures. Pre-requisite: Admission to the Health Information Technology Program or Medical Record Coding Certificate Program or by special permission of the Program Coordinator. Completion of HIT 202 with a grade of C or better. Lecture: 1.5 hours. Laboratory 1 hour. Laboratory: 1 hour.
Components: Laboratory, Lecture
Attributes: Technical

HIT 207(3) Course ID: 007085
Clinical Classification Systems III
Introduces the advanced application of clinical classification systems in the reimbursement for health care services and specialty systems such as RBRVS, OASIS, RUGS, Cancer Registry, etc. Reviews fraud, abuse, and regulatory agency requirements relating to coding and billing. Pre-requisite: HIT 109 and HIT 202. Minimum grade of "C". Lecture: 2.0 credits (30 contact hours); Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

HIT 208(1) Course ID: 004272
Clinical Coding Practicum
Introduces the student to the clinical practice of medical record coding procedures. Provides an opportunity to observe professional and ethical behavior standards within a health information environment. Applies medical records for reimbursement, and practice appropriate security measures. Pre-requisite: Admission to the Health Information Technology Program or Medical Record Coding Certificate Program or by special permission of the Program Coordinator. Successful completion of HIT 108, HIT 110, HIT 112, HIT 202, HIT 206 with a grade of "C" or better. Practicum: 1.0 credits (90 contact hours).
Attributes: Technical or better. Practicum: 1.0 credits (90 contact hours).
Components: Practicum

HIT 210(2) Course ID: 004273
Health Care Statistics
Use, collection, arrangement, presentation and interpretation of health care data. Fundamental concepts of descriptive statistics, data validity, reliability and the appropriate use and interpretation of applied healthcare statistics. Pre-requisite: Admission to the Health Information Technology Program or Medical Record Coding Certificate Program or by special permission of the Program Coordinator and (MT 110 or MT 150) and (CIS 130 or GST 240) and (HIT 200 and HIT 201) and (HIT 202) with a grade of C or better. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical

HIT 211(3) Course ID: 007086
Health Care Management and Statistics
Introduces the principles of organization, supervision, leadership, motivation, and team building within the health information environment. Applies concepts of descriptive statistics, data validity, reliability, and the appropriate use and interpretation of applied health care statistics including the use, collection, arrangement, analysis, presentation and interpretation of health care data. Pre-requisite: HIT 109 and HIT 110. Minimum grade of "C". Pre-requisite or Co-requisite: HIT 112. Minimum grade of "C". Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HIT 212(2) Course ID: 004274
Health Care Organization and Supervision
This course introduces the principles of organization, supervision, leadership, motivation, and team building within the health information environment. Included in the course will be a review of financial performance, ergonomics, contracts, marketing, education, and training. Pre-requisite: Admission to the Health Information Technology Program or by special permission of the Program Coordinator. Successful completion of HIT 200, HIT 202, and HIT 204 with a grade of C or better. Lecture: 2 hours (Contact 30 hours).
Components: Lecture
Attributes: Technical

HIT 214(3) Course ID: 004275
Clinical Practicum II
This course introduces the student to the clinical practice of medical records review, documentation, and supervision within a health information department. The student will observe and assist personnel in all areas of job responsibility within the Health Information Management department. Pre-requisite: Admission to the Health Information Technology Program or by special permission of the Program Coordinator. Successful completion of HIT 200, HIT 202, and HIT 204 with a grade of C or better. Laboratory: 9 hours.
Components: Practicum
Attributes: Technical

HIT 215(4) Course ID: 007087
Clinical Practicum
Introduces the student to the clinical practice of health information review, documentation and supervision within a health information management (HIM) department. Observes and assists personnel in assigned areas of job responsibility within the HIM Department. Provides student with onsite project. Exposes student to HIM roles in other departments (e.g., quality, CDM, Cancer Registry, compliance, risk management). Pre-requisite: (HIT 200 and HIT 202 and HIT 204. Minimum grade of "C") or Consent of Program Coordinator. Practicum: 4.0 credits (180 contact hours).
Components: Practicum
Attributes: Course may be 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 a special permission 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 101(3)  Course ID: 000901
Human Services Survey
Examines community human service agencies regarding their organization, service delivery system, staffing patterns, and funding sources. Explores the origin and development of the social welfare system as well as social welfare policy. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HMS 103(3)  Course ID: 000202
Theories and Techniques in Human Services
Introduces philosophies, theories for intervention, and the problem-solving process. Emphasizes the development of a skill base used in counseling techniques and client intervention. Enhances interpersonal relationship skills through knowledge of communicatin 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 121(3)  Course ID: 000583
Introduction to Addictions
Provides an overview of approaches to understanding addictions with emphasis on the bio-psycho-social model. Analyzes the etiology, progression, and processes involved in change. Pre-requisite: PSY 110 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Course Equivalents: SWK 255
Attributes: Technical
Human Services

HMS 211(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 235(3)  Course ID: 000818
Teaching Persons with Mental Retardation
Introduces mental retardation with emphasis on understanding and teaching the mentally retarded. Pre-requisite: PSY 110 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HMS 245(3)  Course ID: 016148
Psychiatric Mental Health Technician
Prepares students for employment as psychiatric aides or psychiatric technicians. Includes a review of nursing assistant skills, psychopathology, DSM diagnostics, strengths perspective, 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 250(4)  Course ID: 000808
Clinical Practice in Human Services
Provides practice and application of principles and skills previously learned in Human Services courses in community agencies. Pre-requisite: HMS104 with a grade of "C" or better or Consent of Instructor. Lecture: 1.0 credit (15 contact hours); Clinical: 3.0 credits (180 contact hours).
Components: Clinical
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/leisure opportunities, and personal management/Independent living skill training and supports. Emphasizes developmental disabilities and mental retardation. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HON 101(3)  Course ID: 000892
The Ancient World
From Greek and Roman antiquity to the early Christian centuries: an interdisciplinary course in intellectual history. Readings vary at the discretion of the faculty. Pre-requisite: Membership in the Honors Program. 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

HON 102(3)  Course ID: 000766
The Medieval and Renaissance World
From the Middle Ages through the Reformation: an interdisciplinary course in intellectual history. Readings vary at the discretion of the faculty. Written assignments required. Pre-requisite: Membership in the Honors Program. 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. 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. 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities
**HOS Hospitality Management**

**HOS 100(3) Course ID: 002365**

**Introduction to Hospitality Management**

Introduces an overview of the hospitality industry. Examines the historical perspective and tracks current events. Examines the structure of the industry including chains, franchising, ownership, and management. Explores the inner workings of various components of lodging, foodservice and entertainment organizations. Demonstrates real-world application through industry examples and case studies which are used extensively. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

**HOS 160(3) Course ID: 002366**

**Security for the Hospitality Industry**

Analyzes modern security concerns for the protections of assets unique to the hospitality industry, including loss prevention techniques and the application of law for lodging, retailing, clubs, restaurants, lounges and hospitality properties. Examines topics such as industrial safety, disaster control techniques, emergency action planning, and crisis communications. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

**HOS 200(3) Course ID: 002367**

**Cultural Heritage Tourism**

Examines the range of cultural and heritage assets that can become viable tourism attractions and looks at ways of linking quality cultural heritage tourism to community development from effective planning and marketing. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

**HOS 210(3) Course ID: 002368**

**Front Office Operations**

Identifies principles required to organize and operate hotel and motel front office guest needs, to have effective salesmanship, and to create procedures for different types of front office operations. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

**HOS 282(3) Course ID: 002370**

**Tourism Marketing**

Examines how and why tourists make destination choices, and teaches how to develop a marketing system that emphasizes your destination's distinctive appeal. Answers questions of how to assess visitor markets, gather and analyze data, reduce risk and gain competitive advantages, and turn analysis into sound decisions. Applies knowledge from case studies, and practical tips for stretching marketing dollars through better monitoring, cost controls, and evaluation. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

**HPH Health Physics**

**HPH 100(3) Course ID: 006324**

**Health Physics Fundamentals**

Introduces the fundamentals of atomic and nuclear physics, algebra, unit analysis, and team dynamics required within an organization that handles radioactive substances. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

**HPH 101(3) Course ID: 000888**

**Health Physics I**

Introduces the principles of health physics to include atomic and nuclear physics, radioactivity, and ionizing radiation and its biological effects. Pre-requisite: MAT 150 or PHY 152 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

**HPH 102(3) Course ID: 000762**

**Health Physics II**

Introduces internal and external dosimetry, shielding, radiation detection, and environmental monitoring. Pre-requisite: HPH 101. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

**HPH 120(3) Course ID: 000346**

**Radiation Biology**

Examines the cellular response, pathology, and short- and long-term effects of ionizing radiation on tissue. Pre-requisite: (BIO 112 and BIO 113) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

**HPH 201(4) Course ID: 000885**

**Nuclear Instrumentation and Measurement I**

Introduces the principles of operation and use of portable radiation survey instruments, counting room instrumentation including GM and proportional counters, and liquid scintillation. Introduces gamma ray spectroscopy. Pre-requisite: HPH 102. Lecture/Lab: 4.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

**HPH 202(4) Course ID: 000824**

**Nuclear Instrumentation and Measurement II**

Introduces multi-channel analyzers in alpha, beta and gamma spectroscopy. Involves techniques to identify and quantify radioactive materials. Pre-requisite: HPH 201. Lecture/Lab: 4.0 credit hours (90 contact hours).

Components: Lecture
Attributes: Technical

**HPH 246(2) Course ID: 000515**

**Environmental Law**

Surveys federal and state environmental legislation, the role of governmental agencies responsible for implementation of statutes, and simulations of regulation enforcement situations. Lecture: 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical

**HPT Historic Preservation Technology**

**HPT 200(2) Course ID: 005299**

**Introduction to Historic Preservation**

Introduces historic preservation theory, history, and standards of practice through national and local case studies; related national and local agencies, organizations and legislation; and research of early American architecture. Co-requisite: HPT 201. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

**HPT 201(2) Course ID: 006983**

**Introduction to Historic Preservation Lab**

Provides an opportunity to practice historic preservation theory through on-site research, site surveys and recording techniques with an emphasis on assessing and planning rehabilitation and maintenance. Co-requisite: HPT 200. Lab: 2.0 credits (60 contact hours).

Components: Laboratory
Attributes: Technical

**HPT 202(2) Course ID: 006964**

**Masonry Repointing and Repair**

Introduces masonry materials and repair techniques for historic structures with an emphasis on brick and stone masonry and hands-on repair/repointing. Pre-requisite: ISX 100 or ISX 101 or Consent of Instructor. Lecture/Lab: 2.0 credits (52.5 contact hours).

Components: Lecture
Attributes: Technical

**HPT 203(2) Course ID: 006965**

**Window Restoration and Repair**

Presents the process for the removal, repair, and reinstallation of windows in historic properties, including types and components, energy efficiency, safe work practices, basic tools, and glazing techniques. Pre-requisite: ISX 100 or ISX 101 or Consent of Instructor. Lecture/Lab: 2.0 credits (52.5 contact hours).

Components: Lecture
Attributes: Technical

**HPT 204(2) Course ID: 006966**

**Roof Restoration and Repair**

Covers pre-World War II roof designs and materials with a focus on repair and maintenance of roofs on historic buildings. Emphasizes fall protection systems and setup procedures for scaffolding and ladders. Pre-requisite: Consent of Instructor. Lecture/Lab: 2.0 credit hours (52.5 contact hours).

Components: Lecture
Attributes: Technical

**HPT 298(2) Course ID: 000697**

**Field Experience Practicum**

Provides an opportunity for the refinement of techniques and skills acquired in the previous historic preservation courses through non-compensated, supervised on-the-job experience or campus work assignments related to the student's educational and career training objectives. Pre-requisite: ([ISX 100 or ISX 101] and HPT 100 and HPT 101) or Consent of Instructor. Practicum: 2.0 credits (90 contact hours).

Components: Practicum
Attributes: Technical

**HRS Honors**

**HRS 101(3) Course ID: 000895**

**Instructor Consent Required**

**An Integrated Survey of Western Civilization I**

An honors course designed to provide an opportunity for the interested student to study the development of Western Civilization as reflected in the literary, artistic, musical, philosophical, political, and economic developments and movements of the major western cultures from ancient times through the Roman Empire. Lecture: 3 hours. Pre-requisite: Consent of instructor.

Components: Lecture
Attributes: AH - Arts and Humanities

**HRS 200(3) Course ID: 000765**

**Independent/Guided-Study Project**

Students wishing to engage in an approved, valid research/ study project may receive academic credit through this course. The project may be scheduled concurrently with the academic semester, or in the case of necessary travel, between semesters or during the summer term. Lecture: Variable; Laboratory: Variable. Pre-requisite: Superior academic ability as demonstrated by tests, classwork, and interviews.

Components: Laboratory, Lecture
Attributes: Other

**HRT Horticulture**

**HRT 102(3) Course ID: 004340**

**Introduction to Horticulture**

This course introduces the practical approach to the study of horticulture. Students will learn the practices of horticulture and the purpose of plants for food, comfort, and bounty. Lecture: 3 hours. 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

**HRT 104(4) Course ID: 001534**

**Introduction to Herbaceous Plants**

Covers the care, culture and distinguishing characteristics of herbaceous plants including the scientific and common names of many of the most common herbaceous plants including pests common to these plants. Lecture: 4 credits (60 contact hours).

Components: Lecture
Attributes: Technical
<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Name</th>
<th>Credits</th>
<th>Contact Hours</th>
<th>Components</th>
<th>Attributes</th>
<th>Pre-requisites/Co-requisites</th>
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<tbody>
<tr>
<td>001535</td>
<td>HRT 108(4) Introduction to Woody Plants</td>
<td>4</td>
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<td>Lecture: 4 credits (60 contact hours)</td>
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<td>001536</td>
<td>HRT 110(4) Nursery Management</td>
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<td>001538</td>
<td>HRT 120(4) Turf Management</td>
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<td>Laboratory: 2 credits (90 contact hours)</td>
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<td>001539</td>
<td>HRT 130(3) Landscape Maintenance</td>
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<td>Laboratory: 1.0 credits (1.0 contact hours)</td>
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<tr>
<td>001540</td>
<td>HRT 131(2) Landscape Maintenance Lab</td>
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<td>Laboratory: 2 credits (90 contact hours)</td>
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<td>001543</td>
<td>HRT 150(3) Horticulture Business Management</td>
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<td>Laboratory: 1.0 credits (1.0 contact hours)</td>
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<td>005263</td>
<td>HRT 160(4) Retail Floral Design</td>
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<td>Lecture: 4 credits (60 contact hours)</td>
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<td>005264</td>
<td>HRT 161(2) Retail Floral Design Lab</td>
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<tr>
<td>005455</td>
<td>HRT 210(4) Landscape Design</td>
<td>4</td>
<td>60</td>
<td>Lecture: 4 credits (60 contact hours)</td>
<td>Technical</td>
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<tr>
<td>005518</td>
<td>HSM 100(3) Introduction to Homeland Security</td>
<td>3</td>
<td>45</td>
<td>Lecture: 3.0 credits (45 contact hours)</td>
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<tr>
<td>005519</td>
<td>HSM 101(3) Health Care Basic Skills I</td>
<td>3</td>
<td>45</td>
<td>Lecture: 3.0 credits (45 contact hours)</td>
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<td>005780</td>
<td>HSM 110(3) Introduction to Emergency Management</td>
<td>3</td>
<td>45</td>
<td>Lecture: 3.0 credits (45 contact hours)</td>
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<tr>
<td>005781</td>
<td>HSM 111(3) Health Care Delivery &amp; Management</td>
<td>3</td>
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<td>005782</td>
<td>HSM 112(3) Health Care Communication</td>
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<td>005783</td>
<td>HSM 113(3) Health Care Foundations</td>
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<td>45</td>
<td>Lecture: 3.0 credits (45 contact hours)</td>
<td>Technical</td>
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</table>
HST 121(2) Course ID: 007365
Pharmacology
Introduces students to the basics of pharmacology/pharmakoinetics, includes 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 in-depth 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 Attributes: Technical

HST Health Care Foundations
HST 123(2) Course ID: 007367
Health Care Basic Skills II
Builds on basic health care skills by incorporating previous learning into more advanced concepts and higher level skills. Emphasizes care of patients with common health problems throughout the lifespan. Prepares students to independently perform skills such as blood sugar monitoring, running an electrocardiogram, urinary catheterization and enemas, collecting blood for lab tests and preparing patients and instruments for surgery, treatment or examination. Pre-requisite: HST 101. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (45 contact hours).
Components: Laboratory, Lecture Attributes: Technical

HUM Humanities
HUM 120(3) Course ID: 000350
Introduction to the Humanities
Introduces students to at least five disciplines in the humanities, such as art, literature, dance, drama, 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: 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: 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 Attributes: AH - Arts and Humanities

HUM 150(3) Course ID: 005430
Introduction to African Literature
Presents a cross-cultural and historical approach to the oral and written works by major Black writers of Africa. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: 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: AH - Arts and Humanities

HUM 202(3) Course ID: 000841
Survey of Appalachian Studies I
Presents an interdisciplinary 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: AH - Arts and Humanities, SB - Social Behavior Science

HUM 203(3) Course ID: 000518
Survey of Appalachian Studies II
Presents an interdisciplinary 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: 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: AH - Arts and Humanities, SB - Social Behavior Science

HUM 207(3) Course ID: 007049
American Seminar: Topic
Examines issues pertinent to American culture and identity through an interdisciplinary and multi-cultural approach. Includes topics such as cultural diversity, religious expression, politics and government, trends in art, literature, and/or music, political life, media representation, trends in social science which may vary from semester to semester. Course may be repeated once for additional credit when the repeat offering covers a different topic than the initial course offering. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Other

HUM 220(3) Course ID: 005532
Historical Perspectives on Peace and War
Provides an introduction to the history of violence and peace movements. Examines the anthropological, political, cultural, and technological factors contributing to the frequent occurrence of war throughout history. Explores the history of movements and organizations, both religious and secular, intended to minimize warfare and oppression. Examines literature and visual arts to enhance and elaborate on the themes presented in the anthropological and historical sections of the course. Sophomore standing or consent of instructor. Pre-requisite: Sophomore Status. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: AH - Arts and Humanities

HUM 221(3) Course ID: 005533
Contemporary Perspectives on Peace and War
Introduces the effects of modern-day warfare and the countervailing trends, actions, and movements to create peace. Focuses on aspects of peace and war such as the role of women, the perspectives of notable scientists, philosophers philosophical, the role of economic globalization in social justice, the environmental impacts, and conflict resolution. Sophomore standing or consent of instructor. Pre-requisite: Sophomore Status. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: SB - Social Behavior Science

HUM 230(3) Course ID: 000374
Contemporary Japanese Literature and Culture in Translation
Presents traditional and contemporary aspects of Japanese culture as reflected in both cultural studies and literature. Examines daily life as revealed in the themes and motifs of Japanese fiction, poetry, drama, and film. Pre-requisite: ENG 102 or ENG 105 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: AH - Arts and Humanities

HUM 245(5) Course ID: 005357
Seminar in Kentucky Literature
This is an online or computer-assisted seminar course in Kentucky literature recognizing, examining, and studying distinct regional differences and similarities with concentration on major contemporary and traditional Kentucky writers and their texts. Topics will vary, from a group of authors, and historical period or aesthetic movement, to a genre, a theme, or an aspect of literary theory. Lecture: 3 credits (45 contact hours).
Components: Lecture Course Equivalents: LIT 200 Attributes: AH - Arts and Humanities

HUM 250(3) Course ID: 005923
Appalachian Literature Survey
Surveys significant texts about Appalachia from native populations and early European settlement to the end of the twentieth century. Emphasizes texts by writers living and working in the region, though perspectives from outside of the region may be examined. Focuses on historical, social, political, and cultural contexts, as well as analysis of literary forms and techniques. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: 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: AH - Arts and Humanities
ICT 230(3)  
Course ID: 000377  
Health, Safety & Environmental Practices  
Basic principles of industrial health and safety are discussed including accident and loss prevention, safety legislation, safety documents, safety management practices, health and safety hazards and control, safe work practices, and fire / explosion hazards. Corresponding field exercises will be performed as appropriate with participating industry representatives. Environmental regulations and their ultimate impact on a chemical facility as regulations will be discussed. An environmental audit will be performed in the field at participating local industries. Lecture: 3 hours. Co-requisite: ICT 185, CHE 104 or 105, or consent of instructor.  
Components: Lecture  
Attributes: Technical

IDL 101(3)  
Course ID: 007201  
Introduction to Instructional Design and Learning Technology  
Provides an introduction to instructional design including the role of learning and training in an organization. This course introduces common types of learning including instructor-led training and eLearning. The course will also provide an overview of learning theory, common eLearning authoring tools, and careers in the design and creation of training. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

HUM 281(3)  
Course ID: 005540  
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

ICT 198(3)  
Course ID: 016366  
Intro to Process Technology  
Introduces the student to a process technician's role and responsibility. Provides instruction in basic principles of safety, quality processes, science, and technology. Includes review of basic chemistry, physics, and math related to industrial process and solving for industrial problems. Introduces basic process equipment. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

ICT 194(4)  
Course ID: 016368  
Process Technology Systems  
Covers the interrelation of process equipment and process system, specifically the arrangement of process equipment into basic systems, process purpose, and specific functions. Discusses the Process Technicians role in controlling factors that affect process systems under normal conditions and how to recognize abnormal process conditions. Pre-requisite: ICT 186 with a grade of C or greater or Permission of Instructor. Lecture/Lab: 4 credits (90 contact hours).  
Components: Lecture  
Attributes: Technical

ICT 196(3)  
Course ID: 016369  
Process Technology Operations  
Introduces the student to the field of operations within the process industry. Utilizes existing knowledge of equipment, systems, and instrumentation to understand the operation of an entire unit as related to commissioning, normal startup, normal operations, normal shutdowns, turnarounds, and abnormal situations. Pre-requisite: ICT 192 with a grade of C or greater or Permission of Instructor. Lecture/Lab: 3 credits (60 contact hours).  
Components: Lecture  
Attributes: Technical

ICT 200(4)  
Course ID: 016370  
Process Troubleshooting  
Introduces troubleshooting techniques, procedures, and methods used to solve process problems. Pre-requisite: ICT 196 with a grade of C or greater or Permission of Instructor. Lecture/Lab: 4 credits (90 contact hours).  
Components: Lecture  
Attributes: Technical

HUM 282(3)  
Course ID: 005541  
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: Other

IDL 110(3)  
Course ID: 007202  
Instructional Design I  
Provides an introduction to instructional systems design through an exploration of the ADDIE model. Students will design, develop, deliver, and evaluate training content for instructor-led learning. Pre-requisite: ENG 101 or consent of the instructor. Lecture/Lab: 3.0 credits (60 contact hours).  
Components: Lecture  
Attributes: Technical

IDL 120(3)  
Course ID: 007203  
Facilitation Skills  
Introduces students to the skills and technology vital to course facilitation. Students will apply adult learning concepts in the role of course facilitator for classroom and online settings. Pre-requisite: IDL 101 and IDL 110 or consent of the instructor. Lecture/Lab: 3.0 credits (60 contact hours).  
Components: Lecture  
Attributes: Technical

IDL 123(3)  
Course ID: 007204  
Multimedia Design and Development  
Introduces students to foundations of design and layout principles that enhance learning. Students will learn to use multimedia in an instructional context, including learning activities, and other forms of multimedia. This course also includes an overview of the course development process. Pre-requisite: IDL 101 and IDL 110 or consent of instructor. Lecture/Lab: 3.0 credits (60 contact hours).  
Components: Lecture  
Attributes: Technical

IDL 130(3)  
Course ID: 007246  
Technical Writing for Instructional Design  
Focuses on both the design and development of technical training and documentation. Students learn how performance outcomes, intended audience, types of content, and types of deliverables impact technical writing. Presentation strategies for content are covered. An overview of tools for technical writing is also provided. Pre-requisite: IDL 101 and IDL 110 or consent of the instructor. Lecture/Lab: 3.0 credits (60 contact hours).  
Components: Lecture  
Attributes: Technical

IDL 203(3)  
Course ID: 007247  
Designing for Client Applications  
Focuses on designing with common client software applications such as word processing, presentation, and spreadsheets. Students will learn to apply visual communication principles to these tools for the purpose of creating training materials and templates. Pre-requisite: CIT 130 and IDC 113 or consent of the instructor. Lecture/Lab: 3.0 credits (60 contact hours).  
Components: Lecture  
Attributes: Technical

IDL 207(3)  
Course ID: 007206  
eLearning Development II: HTML, CSS, and JavaScript  
Covers HTML, CSS, and JavaScript for the development of web pages and web sites. Particular emphasis will be given to the use of these technologies for eLearning. Pre-requisite: IDL 147 or consent of the instructor. Lecture/Lab: 3.0 credits (60 contact hours).  
Components: Lecture  
Attributes: Technical

IDL 210(3)  
Course ID: 007207  
Instructional Design II  
Learn how Bloom's Taxonomy of Learning Domains translates into the planning, analysis, and design for the resolution of human performance problems. The ADDIE Model of instructional design will be explored within the context of eLearning. Pre-requisite: IDL 101 and IDL 110 or consent of the instructor. Lecture/Lab: 3.0 credits (60 contact hours).  
Components: Lecture  
Attributes: Technical

IDL 213(3)  
Course ID: 007248  
Designing in Graphic Applications  
Provides basic-level training for designing with common graphic software applications. Students will learn to apply visual communication principles in the context of a variety of deliverables, including print and eLearning. Pre-requisite: IDL 113 or consent of the instructor. Lecture/Lab: 3.0 credits (60 contact hours).  
Components: Lecture  
Attributes: Technical

HUM 282(3)  
Course ID: 006541  
Process Technology Equipment  
Introduces the student to troubleshooting techniques, procedures, and methods used to solve process problems. Pre-requisite: ICT 196 with a grade of C or greater or Permission of Instructor. Lecture/Lab: 4 credits (90 contact hours).  
Components: Lecture  
Attributes: Other

IDL 147(3)  
Course ID: 007205  
eLearning Development I: Rapid Authoring Tools  
Provides an overview of eLearning development tools for the development of courses including learning activities. Particular emphasis will be given to rapid authoring tools. Lecture/Lab: 3.0 credits (60 contact hours).  
Components: Lecture  
Attributes: Technical

IDL 124(3)  
Course ID: 007209  
Multimedia Development  
Introduces students to audio / video production and implementation for eLearning. Pre-requisite: IDL 123 or consent of the instructor. Lecture/Lab: 3.0 credits (60 contact hours).  
Components: Lecture  
Attributes: Technical

IDL 220(3)  
Course ID: 007249  
Business Management for Instructional Design and Learning Technology  
Provides an overview of business and the role of learning and training for an organization. This course includes an overview of financial and project management as well as the relationship of the training function to corporate goals and objectives. Pre-requisite: IDL 101 and IDL 110 or consent of the instructor. Lecture/Lab: 3.0 credits (60 contact hours).  
Components: Lecture  
Attributes: Technical

HUM 281(3)  
Course ID: 006540  
Introduction to Film  
Introduces the study of movies as a narrative art and a cultural document. Requires viewing of films outside of class. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Course Equivalents: ENG 281  
Attributes: AH - Arts and Humanities

HUM 282(3)  
Course ID: 005541  
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: Other
IDL 223(3)  Course ID: 0077250
Design Application
Provides practical application in which students will utilize their accumulated skills, knowledge of design software and fundamental principles in several real-life scenarios. Pre-requisite: IDL 203 and IDL 213 or consent of the instructor. Lecture: 3.0 credits (90 contact hours).
Components: Lecture  Attributes: Technical

IDL 227(3)  Course ID: 0077209  eLearning Development III: Advanced Authoring Tools
Provides instruction in the development of elearning courses and learning activities, including scenarios and assessments. Particular emphasis will be given to more advanced authoring tools and functions. Pre-requisite: IDL 207 or consent of the instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture  Attributes: Technical

IDL 230(3)  Course ID: 0077251
Evaluation of Instruction
Provides an overview of the key considerations for evaluating instruction. Students will learn to write valid assessments of learning. Pre-requisite: IDL 210 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture  Attributes: Technical

IDL 240(3)  Course ID: 0077252
Human Performance Consulting
Provides an overview of consulting for human performance issues. Students gain experience with problem solving, decision making, the application of learning skills, and the interpretation of information in a project context. Pre-requisite: IDL 210 or consent of the instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture  Attributes: Technical

IDL 250(3)  Course ID: 0077253
Instructional Design III
Explored advanced topics in instructional design. Methods for increasing learner engagement for elearning courses will be shared. The students will take on the role of the instructional designer to design and develop advanced learning activities, including scenarios, learning games, and simulations. Pre-requisite: IDL 210 or consent of the instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture  Attributes: Technical

IDL 260(3)  Course ID: 0077254
Competency Models and Curriculum Design
Provides an overview of competency models, the definition of competencies through job task analysis and the development of curriculum models that support a competency-based training plan. Pre-requisite: IDL 210 or consent of the instructor. Lecture: 3.0 credit (45 contact hours).
Components: Lecture  Attributes: Technical

IDL 280(3)  Course ID: 0077255
Experiential Learning in Instructional Design
Perform entry-level Instructional Design and Learning technology skills based on student’s chosen track. The learning plan will be discussed and agreed upon by the student, instructor and site supervisor. Pre-requisite: Permission of the instructor. Co-Op: 3.0 credits (180 contact hours).
Components: Co-Op  Attributes: Technical

IDL 299(3)  Course ID: 0077256  Instructor Consent Required
Instructional Design Capstone
Provides an opportunity to assemble a comprehensive portfolio using skills learned throughout the Instructional Design and Learning Technology Program, including an assessment of the student’s overall skills related to their program specialization or track. Provides IDL students with a professional design portfolio to aid in the search for employment. Pre-requisite: Consent of the instructor. Lab: 3.0 credits (90 contact hours).
Components: Laboratory  Attributes: Technical

IDT 100(3)  Course ID: 0005738
Foundations of Digital Technology
Introduces the basic drawing skills, elements and principles, color theory, terminology, and guidelines used to solve interactive design problems. Develops the ability and confidence to determine the appropriateness, feasibility and success of a potential design. Explores the integration of typography and visual elements using format structures. Pre-requisite or Co-requisite: Computer literacy course. Lecture: 3 credits (45 contact hours).
Components: Lecture  Attributes: Technical

IDT 110(4)  Course ID: 0005739
3D Modeling & Animation I
Applies basic design principles to the solution of visual problems using elements of 3D design. Includes 3D coordinate systems, 3D models, and mathematical computations as they apply to geometric construction. Emphasizes a creative and critical approach to working in the medium of 3D computer animation. Pre-requisite or Co-requisite: Computer literacy course. Lecture/Lab: 4 credits (90 contact hours).
Components: Lecture  Attributes: Technical

IDT 120(4)  Course ID: 0005740
Digital Design Tools
Includes the basic skills, terminology, file formats and specifications of visual design within the digital realm through the use of industry standard vector and raster software. Requires file management and project planning. Pre-requisite or Co-requisite: Computer literacy course. Lecture/Lab: 4 credits (90 contact hours).
Components: Lecture  Attributes: Technical

IDT 170(3)  Course ID: 0005743
Project Strategy
Introduces marketing and design terms, information gathering, research, and data interpretation. Uses small groups to teach the challenges and rewards of creative collaboration. Includes group work to plan, prioritize, and set goals for a team project. Pre-requisite or Co-requisite: Computer literacy course. Lecture: 3 credits (45 contact hours).
Components: Lecture  Attributes: Technical

IDT 210(3)  Course ID: 0005744
3D Modeling & Animation II
Covers advanced 3D modeling practices for artists and designers working with animation. Provides deeper knowledge of 3D modeling formats: Polygons, NURBS, and Subdivision Surfaces. Explores issues of integrating a model into animation production and application of advanced troubleshooting skills. Pre-requisite: IDT 110 with a grade of C or greater; or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture  Attributes: Technical

IEC 101(3)  Course ID: 004130
Orientation to Early Childhood Education
Introduces information related to designing appropriate environments and curricula for infants, toddlers, and preschoolers. Explores the historical and current influences on early childhood education. Includes 20 hours of required field experience, which may be waived by the IEC program coordinator for students concurrently enrolled in IEC 190 or IEC 291. Lecture: 3.0 credits (45 contact hours).
Components: Lecture  Attributes: Technical

IEC 102(3)  Course ID: 004087
Foundations of Early Childhood Education
Focuses on creating an environment and curricula that support cognitive, physical, creative, language, social, and emotional development of infants, toddlers, and preschoolers. Presents knowledge of appropriate child assessment, ethical decision-making in the early childhood profession, and accommodations for children with disabilities. Includes 20 hours of required field experience, which may be waived by the IEC program coordinator for students concurrently enrolled in IEC 190 or IEC 291. Lecture: 3.0 credits (45 contact hours).
Components: Lecture  Attributes: Technical

IEC 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. Includes 10 hours of required field experience which may be waived by IEC program coordinator for students concurrently enrolled in IEC 190 or IEC 291. Lecture: 3 credits (45 contact hours).
Components: Lecture  Attributes: Technical

IEC 130(3)  Course ID: 004132
Early Childhood Development
Addresses the physical, language, cognitive, social and emotional development of children beginning with conception. Includes methods of observation that are practiced during field experiences. Includes 10 hours of required field experience, which may be waived by the IEC program coordinator for students concurrently enrolled in IEC 190 or IEC 291. Lecture: 3 credits (45 contact hours).
Components: Lecture  Attributes: Technical

IEC 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 20 hours of required field experience, which may be waived by the IEC program coordinator for students concurrently enrolled in IEC 190 or IEC 291. Pre-requisite: IEC 101 or IEC 102 or IEC 130 or permission of program coordinator. Lecture: 3 credits (45 contact hours).
Components: Lecture  Attributes: Technical

IEC 180(3)  Course ID: 004088
Approaches to Early Childhood Education
Introduces theoretical perspectives for curriculum in early childhood programs. Teaches the design of curricula and examines the societal factors that impact programming for children. Includes 10 hours of required field experience, which may be waived by the IEC program coordinator for students concurrently enrolled in IEC 190 or IEC 291. Pre-requisite: IEC 101 or IEC 102 or IEC 130 or permission of IEC program coordinator. Lecture: 3 credits (45 contact hours).
Components: Lecture  Attributes: Technical

IEC 190(3)  Course ID: 004134
Applications in Early Childhood Education
Examines students' experiences in early childhood settings. Covers observing, planning, implementing and assessing learning experiences based on developmentally appropriate practices. Any 100 level IEC course or permission of program coordinator. 3 credits (105 contact hours).
Components: Laboratory  Attributes: Technical

IEC Interdisciplinary Early Childhood
IEC 200(3)
Course ID: 004133
Child Guidance
Examines appropriate methods for guiding children and promoting the development of prosocial behaviors. Includes 10 hours of required field experience, which may be waived by the IECE program coordinator for students concurrently enrolled in IEC 190 or IEC 291. Pre-requisite: IEC 101 or IEC 130 or permission of program coordinator. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

IEC 210(3)
Course ID: 005580
Families and Communities in Early Childhood Education
Examines community programs that focus on forming partnerships with families to support child development and family well-being. Builds an awareness of family 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 211(3)
Course ID: 004135
Literacy and Language in IEC
Presents the interaction of language therapy and instruction techniques and the resulting effect on language and literacy development. Includes ten (10) hours of required field experience, which may be waived by the IECE program coordinator for students concurrently enrolled in IEC 190 or IEC 291. Pre-requisite: IEC 180 or permission of program coordinator. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

IEC 212(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. Required: 10 hours of field experience. (This requirement may be waived by faculty for students who are concurrently enrolled in IEC 190 or IEC 291.). Pre-requisite: IEC 180 or consent of program coordinator. Lecture: 3.0 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. 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

IEC 231(3)
Course ID: 004137
Introduction to Inclusive Education
Presents the types of exceptionalities that occur in the development of children with an emphasis on state and federal laws that impact services. Introduces assessment, referral processes and sources, education plans, family service plans, center-based and home-based care, adaptations and assistive technology, and ethical considerations. Includes twenty (20) hours of required field experience, which may be waived by the IECE program coordinator if the student is concurrently enrolled in IEC 190 or IEC 291. Pre-requisite: IEC 180 or permission of coordinator. Lecture: 3 credits (45 contact hours).
Components: Lecture 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, art, and health in learning experiences for young children. Includes 10 hours of required field experience which may be waived by the IECE program coordinator if the student is concurrently enrolled in IEC 190 or IEC 291. Pre-requisite: IEC 180 or permission of IECE program coordinator. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

IEC 250(3)
Course ID: 004089
School Age Child Care
Provides the student with specialized knowledge, skills, and abilities for working with school age children. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

IEC 260(3)
Course ID: 004140
Infant and Toddler Education and Programming
Examines the developmental and educational needs of children from birth to age three. Provides an opportunity for students to plan, 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 270(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: Two hundred twenty-five (225) field hours of experience. Pre-requisite: Program Coordinator’s Approval. Practicum: 3 credits (225 contact hours/ratio 75:1).
Components: Practicum Attributes: Technical

IEC 271(1 - 3)
Course ID: 004142
Department Consent Required
Special Topics in Early Childhood Education
An in-depth knowledge of a selected topic in early childhood education is the goal of this course. The topic of study may be the student’s choice per instructor’s approval or an issue or topic developed by an instructor for course presentation. Pre-requisite: Coordinator’s Approval. Lecture: 1.0-3 credits (15-45 contact hours).
Components: Lecture Attributes: Technical

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 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
BluPrint Reading/Schematics
Introduces the fundamental information in drafting necessary to retrieve read, manipulate and understand a mechanical part print. Insturcts 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 110(4)
Course ID: 007181
Welding and Fabrication
Introduces the power sources used in shielded metal arc welding (SMAW) and gas metal arc welding (GMAW), along with equipment and filler metals used to produce a welded joint and welding principles along with the metallurgy of steel and welding. Covers shielded metal arc welding safety and shielded metal arc welding processes including flat, horizontal, vertical, and overhead welding techniques. Provides the results of theory, safety practices, equipment and techniques required for gas metal arc welding including different transfer methods and position welding. Introduces oxy-fuel welding and cutting, including safety, setup and maintenance of oxy-fuel and cutting equipment. Includes cutting, brazing, and welding techniques. Lecture/Lab: 4.0 credits (100.5 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules, Technical
IET 120(4)  Course ID: 007186
Machine Tool Operations
Introduces machining operations, procedures and machines used by multi-skilled industrial maintenance technicians. Introduces the safe and correct operation of lathes, milling machines, drill presses, metal saws and hand power tools. Requires students to work with various measuring and layout tools found in industrial environments. Lecture/Lab: 4.0 credits (102 credit hours).
Components: Lecture Components: Lecture
Attributes: Course Also Offered in Modules, Technical
IET 130(5)  Course ID: 016096
Circuit Analysis
Introduces the student 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 Deduction 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 101(8)  Course ID: 007180
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 structure, 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 (102.5 contact hours).
Components: Lecture Components: Lecture
Attributes: Course Also Offered in Modules, Technical
IET 205(4)  Course ID: 007167
Robot Maintenance
Introduces robotics in regard to industrial robotic safety standards, applications, types of classes for industrial robots, basic system components, robotic motion concepts, key programming techniques, definitions and the common terms associated with computer integrated manufacturing (CIM) as it relates to robotic cells. Instructs students on the mastering concepts of preventive maintenance techniques required for a robot and their backup systems in addition to recovery procedures needed to interpret robot error codes and perform a safe recovery start up procedure on robotics equipment, as well as integrating robotic applications in a PLC-controlled, automated system. Lecture/ Lab: 4.0 credits (92.5 contact hours).
Components: Lecture Components: Lecture
Attributes: Course Also Offered in Modules, Technical
IET 206(5)  Course ID: 007161
Controls and Instrumentation
Introduces basic concepts and components of control systems and principles as they affect a power transmission systems ability to perform the work. Introduces 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 Components: Lecture
Attributes: Course Also Offered in Modules, Technical
IET 107(4.0)  Course ID: 007144
Solid State Devices
Introduces solid state devices and applications. Covers semiconductor theory and operational characteristics of devices such as the diode, bipolar junction transistor (BJT) and field effect transistor (FET). Examines the basic DC power supply in the lab. Addresses concepts such as polarity, biasing, rectification and amplification. Includes discussion of camera-type vision systems, barcode readers and laser etchers. Lecture/Lab: 0.7 credits (16.5 contact hours).
Components: Lecture
IET 1081(0.5)  Course ID: 007146
Basic Mechanical Power Systems
Introduces the basic concepts of mechanical power transmission. Addresses the principles of power transmission, calculations of speed and force and how they affect a power transmission systems ability to perform work. Examines the basics of mechanical drawing, safe work practices for working around machinery, common hand tools associated with maintenance work and some of the more common terms and definitions. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture
IET 1082(0.3)  Course ID: 007147
Flexible Drives
Introduces various types and styles of flexible belt and chain drives, including V-belts, chains, sprockets, and components. Lecture/Lab: 0.3 credit (7.5 contact hours).
Components: Lecture
IET 1083(2.2)  Course ID: 007148
Couplings and Alignment
Introduces various types and functions of couplings used in industrial power transmissions, including how to install, align, and maintain shaft couplings. Lecture/Lab: 2.2 credits (55.5 contact hours).
Components: Lecture
IET 1084(1.1)  Course ID: 007149
Bearing, Shafts, and Seals
Introduces basic types and functions of bearings, shafts and seals found on mechanical drive systems commonly used in industry. Lecture/Lab: 1.1 credits (24 contact hours).
Components: Lecture
IET 1085(0.2)  Course ID: 007150
Brakes and Clutches
Introduces various types and styles of braking systems and clutch components used in industrial applications. Lecture/Lab: 0.2 credits (4.5 contact hours).
Components: Lecture
IET 1086(0.7)  Course ID: 007151
Gears and Cams
Introduces various types and styles of gears and cam follower components used in industrial applications. Lecture/Lab: 0.7 credits (13.5 contact hours).
Components: Lecture
IET 1087(0.7)  Course ID: 007152
Basic OSHA Safety
Introduces OSHA and the OSHA regulations that apply to the auto manufacturing industry. Lecture/Lab: 0.7 credits (12 contact hours).
Components: Lecture
IET 1089(0.4)  Course ID: 007154
Hoists and Cranes
Introduces the basic concepts and safety rules and issues related to the use of overhead cranes and hoists. Lecture/Lab: 0.4 credit (6 contact hours).
Components: Lecture
IET 1093(1.2)  Course ID: 007155
Rigging Awareness & Fundamentals
Introduces the basic concepts and safety rules and issues related to the use of rigging equipment, attachment components, calculating sling angle stresses, and safe lifting and turning loads. Lecture/Lab: 1.2 credits (25.5 contact hours).
Components: Lecture
IET 1094(0.7) Course ID: 007156
First Aid, CPR, & AED
Provides knowledge and skills necessary to help sustain life and minimize the consequences of injury or sudden illness until advanced medical help arrives. Includes first aid, CPR, and AED lessons to meet the various training needs of those in workplace, school or community settings. Lecture/Lab: 0.7 credits (16.5 contact hours).
Components: Lecture

IET 1101(0.5) Course ID: 007182
Introduction to Arc Welding
Introduces the power sources used in shielded metal arc welding (SMAW) and gas metal arc welding (GMAW), along with equipment and filler metals used to produce a welded joint and welding principles along with the metallurgy of steel and welding. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

IET 1102(1.6) Course ID: 007183
SMAW/Stick Welding
Introduces shielded metal arc welding (SMAW) safety and shielded metal arc welding (SMAW) processes including flat, horizontal, vertical, and overhead welding techniques. Lecture/Lab: 1.6 credits (45 contact hours).
Components: Lecture

IET 1103(0.9) Course ID: 007184
Gas Metal Arc Welding
Provides knowledge of theory, safety practices, equipment and techniques required for gas metal arc welding (GMAW) including different transfer methods and position welding. Lecture/Lab: 0.9 credits (25.5 contact hours).
Components: Lecture

IET 1104(1) Course ID: 007185
Welding and Fabrication
Introduces oxy-fuel welding and cutting, including safety, setup and maintenance of oxy-fuel welding and cutting equipment. Includes cutting, brazing, and welding techniques. Lecture/Lab: 1.0 credits (22.5 contact hours).
Components: Lecture

IET 1201(0.1) Course ID: 007187
Intro to Machining Operations
Introduces machining operations. Focuses on the safe application of the most common machining procedures and machines used by multi-skilled industrial maintenance technicians. Lecture: 0.1 credits (1.5 contact hours).
Components: Lecture

IET 1202(0.6) Course ID: 007188
Turning
Introduces safe operation of lathes, primarily engine and tool room lathes. Addresses various types of lathes used in industry, their component parts, and associated safety precautions. Emphasizes the most common lathe operations required by multi-skilled industrial maintenance technicians. Lecture/Lab: 0.6 credits (16.5 contact hours).
Components: Lecture

IET 1203(0.8) Course ID: 007189
Milling
Introduces safe operation of milling machines, primarily vertical milling machines. Addresses the various types of milling machines used in industry, their component parts, and associated safety precautions. Emphasizes the most common milling operations required by multi-skilled industrial maintenance technicians. Lecture/Lab: 0.8 credits (22.5 contact hours).
Components: Lecture

IET 1204(0.5) Course ID: 007190
Drill Press
Introduces safe operation of drill presses, primarily the sensitive drill press. Addresses the various types of drilling machines used in industry, their component parts, and associated safety precautions. Emphasizes the most common 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 the most common tools used by multi-skilled industrial maintenance technicians. Lecture/Lab: 0.7 credits (16.5 contact hours).
Components: Lecture

IET 1301(1) Course ID: 016097
Safety Culture
Introduces the importance of cultivating daily safe work habits and the predictable negative results of not being safety conscious in the work place. Instructs the students in basic safety culture and prepares them to participate in, conduct, and lead safely walk-throughs. Introduces the student to Kiken Yoshi Training (KY) 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
Safety Practices
Introduces the fundamentals of safety principles involving the five step progression described by the Japanese words Seiri, Seiton, Seiso, Seiketsu, and Shitsuke. Instructs the students in the sequence involving classifying and sorting, ordering and aligning, cleaning and sweeping up, standardizing, and developing a process of sustainable practice in the workplace. Forgets 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 Mudas and their relationship to maintenance and production. 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 preventive 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 1201(0.7) Course ID: 007171
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 1202(0.8) Course ID: 007172
Reservoirs, Fluids, Filters
Introduces functions of hydraulic/pneumatic reservoirs and reservoir component. 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 1203(0.4) Course ID: 007173
Hand, Piping, and Tubing
Introduction to Arc Welding
Introduces various types of conductors that carry fluid through a system. Focuses on fittings, hose, and steel tubing used in fluid power systems. Lecture/Lab: 0.4 credits (9 contact hours).
Components: Lecture

IET 1204(0.8) Course ID: 007174
Pumps, Actuators, Accumulators
Introduces the different types of pumps, actuators and accumulators used in fluid power systems which create flow, change fluid power into mechanical power and devises that store energy in the system. Lecture/Lab: 0.8 credits (16.5 contact hours).
Components: Lecture

IET 1205(1.3) Course ID: 007175
Safety Culture
Introduces the importance of cultivating daily safe work habits and the predictable negative results of not being safety conscious in the work place. Instructs the students in basic safety culture and prepares them to participate in, conduct, and lead safely walk-throughs. Introduces the student to Kiken Yoshi Training (KY) 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 1206(0.9) Course ID: 007176
Safety Practices
Introduces the fundamentals of safety principles involving the five step progression described by the Japanese words Seiri, Seiton, Seiso, Seiketsu, and Shitsuke. Instructs the students in the sequence involving classifying and sorting, ordering and aligning, cleaning and sweeping up, standardizing, and developing a process of sustainable practice in the workplace. Forgets the development of a workplace organization in which safety and efficiency are always paramount. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

IET 1207(0.9) Course ID: 007177
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 Mudas and their relationship to maintenance and production. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

IET 2011(1) Course ID: 007178
Electrohydraulics/Pneumatics Fundamentals
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 2012(0.7) Course ID: 007179
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 2013(1.5) Course ID: 007180
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 2014(1.5) Course ID: 007181
PLC Communication
Introduces various elements of industrial communications using PLCs. Addresses common types of control communications in an industrial environment. Includes discussion of PLC addressing used in communications. Lecture/Lab: 1.5 credits (34.5 contact hours).
Components: Lecture
IET 2051(0.6) Course ID: 007166
Introduction to Robotics
Introduces robotics in regard to industrial robotic safety standards, historic timeline of industrial robots, industrial classification of robots, common industrial applications of robots, basic system components found in industrial robot applications, robotic motion concepts, common terms and definitions used in computer integrated manufacturing (CIM) as it relates to robots. Lecture/Lab: 0.6 credits (10.5 contact hours).
Components: Lecture

IET 2052(1.5) Course ID: 007165
Programming/Editing Robots
Introduces robotic systems and programming. Reviews robotic system application, automated system safety, robotic system composition, robotic motion control, fundamental programming commands, and programming editing. Emphasizes the fundamentals of robot control. Aids students in electronics, welding, computer technology, and general sciences. Lecture/Lab: 1.5 credits (30 contact hours).
Components: Lecture

IET 2053(0.2) Course ID: 007164
Robot and Preventive Maintenance
Instructs an operator, technician, engineer, programmer, or student to master the preventive maintenance techniques required for a robot and their backup systems. Lecture/Lab: 0.2 credits (4.5 contact hours).
Components: Lecture

IET 2054(1.1) Course ID: 007163
Error Codes & Troubleshooting
Instructs operators, technicians, engineers, programmers, or students on the basic recovery procedures needed to interpret robot error codes and perform a safe recovery start up procedure on robotics equipment. Lecture/Lab: 1.1 credits (22.5 contact hours).
Components: Lecture

IET 2055(0.8) Course ID: 007162
Integration of PLCs & Robots
Introduces concepts associated with integrating robotic applications in a PLC-controlled, automated system. Includes discussion of the standard safety and interface signals associated with integrated systems, as well as various types of robotic applications along with the interface signals typically associated with each application. Stresses the programming concepts that support optimizing cycle time. Lecture/Lab: 0.8 credits (16 contact hours).
Components: Lecture

IET 2061(0.5) Course ID: 007160
Fundamentals
Introduces identification, installation, replacement, and troubleshooting of automation controller circuit boards and modules. Lecture/Lab: 0.5 credits (10.5 contact hours).
Components: Lecture

IET 2062(0.9) Course ID: 007159
Sensors and Photoeyes
Introduces installation, maintenance and troubleshooting of common input devices. Lecture/Lab: 0.9 credits (18 contact hours).
Components: Lecture

IET 2063(0.6) Course ID: 007158
Calibration and Loop Training
Introduces methods of motor control including on-off, proportional, integral, and derivative including PID loop tuning and quality. Lecture/Lab: 0.6 credits (13.5 credits).
Components: Lecture

IET 2064(3) Course ID: 007157
Final Control Elements
Covers automation output devices including AC, DC, and servo motors, variable speed drives, relays, motor starters and sizing of components for various applications. Lecture/Lab: 3.0 credits (63 contact hours).
Components: Lecture

IET 291(1) Course ID: 001575
Instructor Consent Required
Special Problems I
This course is designed for the student who has demonstrated specific needs. Pre-requisite: Permission of Instructor. 1 credit (45 contact hours)
Components: Laboratory
Attributes: Technical

IET 293(2) Course ID: 001576
Instructor Consent Required
Special Problems II
This is a course designed for the student who has demonstrated specific needs. Pre-requisite: Permission of Instructor. 2 credits (90 contact hours)
Components: Laboratory
Attributes: Technical

IET 295(3) Course ID: 001577 Instructor Consent Required
Special Problems III
This is a course designed for the student who has demonstrated specific special needs. Pre-requisite: Permission of Instructor. 3 credits (135 contact hours)
Components: Laboratory
Attributes: Technical

IET 297(4) Course ID: 005346
Special Problems IV
Designed for the student who has demonstrated specific special needs. Laboratory: 4 credits (180 contact hours).
Components: Laboratory
Attributes: Technical

IFM 111(3) Course ID: 007270
Client-side Informatics Software
Examines client-side informatics software used to define, analyze, design, collect, structure, manage, and share organizational data. Examines data through 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

IFM 128(3) Course ID: 007271
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 130(3) Course ID: 007272
Business Data Communications
Introduces students to data communications terminology and concepts used in business. Introduces students to network design and analysis. Provides a survey of network planning, implementation and administration. Provides an overview of comprehensive networking hardware and software products and the methodologies used for their evaluation. Introduces students to data and network security. Introduces students to data storage, database systems and data extraction across various network and client-side devices. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IFM 211(3) Course ID: 007273
Collaboration Software
Examines collaboration software and how it is commonly used in informatics environments and within organizations.
Components: Lecture
Attributes: Technical

Prepares students to design, develop, implement and manage team collaboration sites. Pre-requisite: Computer Literacy. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IFM 213(3) Course ID: 007274
Information Systems Analysis
Introduces students to systems analysis and general design; analysis strategies, tools, and techniques for documenting current systems and developing proposed systems; systems modeling, data modeling, cost/benefit 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

IFM 223(3) Course ID: 007275
Advanced Informatics
Examines advanced informatics concepts related to designing, analyzing, organizing, securing, managing, and mining databases. Examines such topics as data corruption, efficiency in design and implementation, data mining, database connectivity, and network and security basics. Pre-requisite: Computer Literacy. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IFM 235(3) Course ID: 007276
Information Systems and Business Intelligence
Introduces students to the fundamentals of information systems and business intelligence. Prepares both business and information technology students to understand how information systems and business intelligence provides a basis for the decisions needed to be competitive in the global marketplace. Pre-requisite: Digital Literacy or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD Information Management and Design

IMD 100(3) Course ID: 004764
Digital Information & Communication Technologies
Introduces digital and social media concepts and technologies. Examines hardware, operating systems, applications, telecommunications, digital defense, ethics, and social media. Utilizes Windows operating system plus word processing, spreadsheet, database, and presentation applications. Emphasizes social media practices and concepts. This course fulfills the digital literacy requirement. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Digital Literacy

IMD 114(3) Course ID: 005748
Information Literacy
This course is an introduction to the use of information resources, both traditional print materials and online materials, for academic and professional research. Topics include development of search strategy, evaluation of resources, use of database search techniques, ethical and legal aspects of information management and documentation of sources. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Digital Literacy

IMD 115(3) Course ID: 004765
Introduction to Graphic Design
Introduces theory, concepts and techniques required in graphic design. Includes an introduction to layout, color theory and 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 Information Management and Design

IMD 114(3) Course ID: 005748
Information Literacy
This course is an introduction to the use of information resources, both traditional print materials and online materials, for academic and professional research. Topics include development of search strategy, evaluation of resources, use of database search techniques, ethical and legal aspects of information management and documentation of sources. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Digital Literacy

IMD 115(3) Course ID: 004765
Introduction to Graphic Design
Introduces theory, concepts and techniques required in graphic design. Includes an introduction to layout, color theory and use, design, photo and illustration techniques, and exploration of media in respect to digital design. Integrates concepts regarding the production process including pre-press, printing, other production techniques and distribution. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
IMD 117(3)  Course ID: 004767  
**Keyboarding and Basic Word Processing**  
Students use a microcomputer and software to develop proper techniques of touch keyboarding. Basic word processing skills are integrated with a thorough study of form, style, and arrangement of business documents. Speed, accuracy and control are emphasized. Lecture: 3 credits (45 contact hours).  
**Components:** Lecture  
**Attributes:** Computer Literacy, Technical

IMD 124(3)  Course ID: 016264  
**Introduction to Game Development**  
Presents an overview of the game development process including game development history, platforms, goals, genres, players, story and character development, gameplay, levels, interfaces, audio, development processes, development team roles, marketing, and maintenance. Provides opportunities to play and analyze games and to complete portions of game designs. Pre-requisite: CIT105 OR IMD100 OR Consent of Instructor. Lecture: 3.0 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 180(3)  Course ID: 004786**  
**Intermediate Web Design**  
Utilizes web design image creation software, used to create professional, aesthetically pleasing, effective, and fully-functional websites. Includes creation of complete websites using industry-standard software; create web graphics such as buttons, borders, and banners; and a comprehensive examination of web design fundamentals. Identifies fundamentals including website layout, navigation, font usage, color schemes, site architecture, with emphasis on creating visually-pleasing websites that effectively communicate the desired content for employers and clients. Pre-requisite: IMD 133. Lecture: 3.0 credits (45 contact hours).  
**Components:** Lecture  
**Attributes:** Technical

**IMD 210(3)  Course ID: 004787**  
**Microsoft Office Applications**  
Presents advanced skills utilizing Microsoft Office applications for the creation, manipulation, and integration of information. Examines applications including word processing, spreadsheet, database management, and presentation. Pre-requisite: IMD 100 OR Digital Literacy Course OR Instructor Consent. Lecture: 3.0 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. Instills students in practical aspects of graphic design such as color, ray tracing, rasterization, shading, mapping, light, and shadow. Pre-requisite: CIT105 OR IMD100 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
**Components:** Lecture  
**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 222  
**Attributes:** Technical

**IMD 223(3)  Course ID: 016267**  
**3D Animation for Video Games**  
Exposes students to the specialized process of animating 3D assets for gaming applications. Familiarizes students with animating both organic and inorganic assets, lighting scenes, rendering and producing cut-scenes, and preparing character assets for in-game motion. Allows students to acquire the necessary skills and techniques to integrate audio with their animations using basic sound-engineering software and processes. 3 credits (45 contact hours)  
**Components:** Lecture  
**Course Equivalents:** CIT 223  
**Attributes:** Technical

**IMD 226(3)  Course ID: 004791**  
**Advanced Desktop Publishing**  
Requires the demonstration of vital pre-press and print production knowledge necessary for successful output of commercial graphic design projects. Emphasizes raster image creation, editing, and preparation for output, output 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: 006886**  
**Advanced Photoshop**  
Introduces advanced techniques for manipulating and editing raster (photo or pixel-based) graphics using industry-standard application(s). Examines new software features, advanced methods for file optimization and color correction, making complex selections and combining multiple images to create works of art, as well as development of a professional portfolio of raster art and photo editing and manipulation samples. Pre-requisite: IMD 115 and IMD 128. Lecture: 3.0 credits (45 contact hours).  
**Components:** Lecture  
**Attributes:** Technical

**IMD 229(3)  Course ID: 004793**  
**Advanced Web Design**  
Explores existing and emerging web technologies through the role of web designers. Covers topics and issues to include modification of prewritten scripts and applets as well as analysis of current client- and server-side technologies including PHP, MySQL and XML. Students will conclude the course via the creation of a comprehensive, database-driven dynamic website utilizing current client- and server-side technologies including PHP, MySQL, and XML. Pre-requisite: IMD 180 or consent of instructor. Lecture: 3 credits (45 contact hours).  
**Components:** Lecture  
**Attributes:** Technical

**IMD 230(3)  Course ID: 004794**  
**Web Design with Adobe Dreamweaver**  
Utilizes an advanced web authoring software application for design and development. Uses a professional WYSIWYG (what-you-see-is-what-you-get) editor to develop and create web pages, automate production, and manage and maintain entire websites. Builds XHTML, CSS, and web development knowledge to customize features and integrate applications. Pre-requisite: IMD 133 or consent of instructor. Lecture: 3 credits (45 contact hours).  
**Components:** Lecture  
**Attributes:** Technical

**IMD 235(3)  Course ID: 004795**  
**Advanced Word Processing**  
Students will learn current word processing software from intermediate skills through advanced utilities. Topics include producing customized documents, enhancing the visual display of documents, creating customized desktop publishing documents, organizing text in documents using advanced features, and integrating data utilizing various applications. Emphasis will be on mastering the software for optimal use. Pre-requisite: IMD 210 or CIT 130, or equivalent skills. Lecture: 3 credits (45 contact hours).  
**Components:** Lecture  
**Attributes:** Technical
Course Descriptions

IMD 240(3) Course ID: 004796
Multimedia Development for the Web
Introduces students to the design and delivery of interactive and media-rich websites using professional, industry-standard software and web development technologies. Covers creating and integrating animation into web design, along with developing increasing interactivity and adding audio and video into a website. Covers publishing and integration with other web development applications. Pre-requisite: IMD 133 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 250(3) Course ID: 005050
Digital Video Editing I
Covers the essentials of digital video within cinematic arts, including logging, capturing, editing, and basic composting. Students will capture and edit digital video using industry-standard desktop video software and export to DVD and the Internet for use in entertainment, documentary films, commercials, and newscasts. Students will learn to storyboard, plan, and produce a digital video project from conception to final packaging. Pre-requisite: IMD 100 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 255(3) Course ID: 007327
Digital Video Editing II
Covers advanced techniques within cinematic arts and editing such as multi-cam editing, color correction, advanced composting, basic audio editing and production, alpha channels, and special effects. Building on Digital Video Editing I, students will also focus on creating storyboards, quicker workflows, and trim editing using an industry-standard software program. Increased levels of pacing, timing, continuity, and visual aesthetics are emphasized. Students will shoot and edit their own video footage in this course. Cameras will be provided. Pre-requisite: IMD 250 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 259(3) Course ID: 007328
Visual Effects for Video
Covers the creation of visual effects in cinematic arts including basic animation with text and 2D objects and 3D object creation and animation using an industry-standard visual effects software program. Students will focus on animating layers and working with masks, distortion, color correction, motion stabilizing, and particle simulation. Projects will be exported and packaged for the web and DVD. Pre-requisite: IMD 250 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

IMD 270(3) Course ID: 005214
Professional Practices
Designed to assist students develop strategies for entering the Information Management & Design profession by editing and refining portfolios and corresponding 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 Information Management and Des

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
IMG 101(4)  
Course ID: 004295  
Clinical I  
Provides experience in equipment operation, patient care technical factors for radiographic exposures, and in positioning patients accurately for radiographic exams.  
Pre-requisite: Admission to the Radiography Program and BIO 139 with a minimum grade of C. Co-requisite: IMG 100. Clinical: 4.0 credits (240 contact hours).  
Components: Clinical  
Attributes: Technical

IMG 104(2)  
Course ID: 005604  
Introduction to Radiography  
Introduces radiography with emphasis on the historical perspective, professional requirements, health care environment, cultural diversity, and legal and ethical considerations. Incorporates basic tube function and radiation protection. 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  
Examines basic concepts of care relative to patient physical circumstances as well as to the needs of patient and family. Includes communication skills, safety considerations, and infection control. Pre-requisite: BIO 137 with a minimum grade of C. Pre-requisite or Co-requisite: BIO 139. If taken as a pre-requisite, a minimum grade of C is required. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).  
Components: Laboratory, Lecture  
Attributes: Technical

IMG 108(4)  
Course ID: 005606  
Radiographic Procedures I  
Examines the principles of human anatomy as applied to fundamental radiographic procedures. Includes are exposure factors and patient positioning relative to different age groups and to upper and lower extremities, bony and visceral thorax, and abdomen with consideration given to the evaluation of optimal diagnostic images. Pre-requisite: BIO 137 with a minimum grade of C. Pre-requisite or Co-requisite: BIO 139. If taken as a pre-requisite, a minimum grade of C is required. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).  
Components: Laboratory, Lecture  
Attributes: Technical

IMG 109(1)  
Course ID: 005607  
Clinical Practice I  
Provides structured clinical experience through sequential competency-based assignments that focus on the upper and lower extremities, bony and visceral thorax, and abdomen. Pre-requisite: BIO 137 with a minimum grade of C. Pre-requisite or Co-requisite: BIO 139. If taken as a pre-requisite, a minimum grade of C is required. Clinical: 1.0 credit (60 contact hours).  
Components: Clinical  
Attributes: Technical

IMG 110(7)  
Course ID: 004296  
Radiography II  
Emphasizes radiographic imaging, related technical factors, and accessories. Applies human anatomy principles to basic radiographic procedures. Includes study of tomography and procedures used for the basic and complex skulls, vertebral column, alimentary canal, and the biliary and urinary systems. Considers special radiographic examinations and equipment. Pre-requisite: IMG 100 with a minimum grade of C. Co-requisite: IMG 111. Lecture: 6.0 credits (90 contact hours). Laboratory: 1.0 credit (30 contact hours).  
Components: Laboratory, Lecture  
Attributes: Technical

IMG 111(4)  
Course ID: 004297  
Clinical II  
Continues IMG 101 to provide experience with equipment operation, patient care, and procedures for accurate radiographic exposures. Encourages increasing responsibility and autonomy as students build on previously-learned procedures. Pre-requisite: IMG 101 with a grade of C or greater. Co-requisite: IMG 110. Clinical: 4.0 credits (240 contact hours).  
Components: Clinical  
Attributes: Technical

IMG 112(4)  
Course ID: 005608  
Image Production & Acquisition  
Provides knowledge-base related to image production and acquisition, and practical digital with digital imaging systems. Pre-requisite: IMG 104 and IMG 106 and IMG 108 and IMG 109 with a minimum grade of C. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).  
Components: Laboratory, Lecture  
Attributes: Technical

IMG 114(2)  
Course ID: 005609  
Advanced Patient Care in Radiography  
Examines the basic concepts of medical emergency response and pharmacology related to radiography. Addresses informed consent practices and the use of imaging contrast agents, venipuncture and IV therapy. Includes familiarization to professional practice standards. Pre-requisite: IMG 104 and IMG 106 and IMG 108 and IMG 109 with a minimum grade of C. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).  
Components: Laboratory, Lecture  
Attributes: Technical

IMG 116(4)  
Course ID: 005610  
Radiographic Procedures II  
Continues procedures instruction with emphasis on the vertebral column, cranium, gastrointestinal, urinary, and special radiographic procedures. Focuses on the evaluation of optimal diagnostic images. Pre-requisite: IMG 104 and IMG 106 and IMG 108 and IMG 109 with a minimum grade of C. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).  
Components: Laboratory, Lecture  
Attributes: Technical

IMG 119(3)  
Course ID: 005611  
Clinical Practice II  
Provides structured clinical experience through competency-based assignments focusing on the upper and lower extremities, bony and visceral thorax, and abdomen. Pre-requisite: IMG 104 and IMG 106 and IMG 108 and IMG 109 with a minimum grade of C. Clinical: 3.0 credits (180 contact hours).  
Components: Clinical  
Attributes: Technical

IMG 201(3)  
Course ID: 004298  
Clinical III  
Continues IMG 111 to provide experience with equipment operation application of patient care, set-up of correct technical factors for radiographic exposures, and positioning patients accurately for radiographic exams. Provides opportunities for more responsibility and independence with previously learned procedures. Pre-requisite: IMG 111 with a grade of C or greater. Clinical: 3.0 credits (180 contact hours).  
Components: Clinical  
Attributes: Technical

IMG 209(3)  
Course ID: 005612  
Clinical Practice III  
Provides clinical experience through structured sequential competency based clinical assignments to include the upper and lower extremities, bony and visceral thorax, abdomen, vertebral column, cranium, and contrast studies of the digestive, urinary, and central nervous systems, and arthrography. Pre-requisite: (IMG 114 and IMG 116 and IMG 118 and IMG 119) with a minimum grade of C. Clinical: 3.0 credits (180 contact hours).  
Components: Clinical  
Attributes: Technical

IMG 210(4)  
Course ID: 004299  
Radiography IV  
Covers theories and principles involved in the production, control, and application of ionizing radiation in radiography. Emphasizes the development of a quality assurance program, quality control testing of radiographic equipment, and image intensification. Pre-requisite: IMG 201 with a grade of C or greater. Co-requisite: IMG 211. Lecture: 3.0 credit (45 contact hours). Lab: 1.0 credit (30 contact hours).  
Components: Laboratory, Lecture  
Attributes: Technical

IMG 211(6)  
Course ID: 004300  
Clinical IV  
Continues IMG 201 to provide experience with equipment operation, application of patient care, set-up of correct technical factors for radiographic exposures, and positioning patients accurately for radiographic exams. Provides opportunities for more responsibility and independence with previously learned procedures. Pre-requisite: IMG 201 with a grade of C or greater. Co-requisite: IMG 210. Clinical: 6.0 credits (360 contact hours).  
Components: Clinical  
Attributes: Technical

IMG 212(4)  
Course ID: 005613  
Imaging Equipment  
Focuses on the types of imaging equipment used in radiography including x-ray imaging systems, fluoroscopy, tomography, screens, film, and automatic processing. Includes quality management in radiography. Pre-requisite: IMG 209 with a minimum grade of C. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).  
Components: Laboratory, Lecture  
Attributes: Technical

IMG 216(1)  
Course ID: 005614  
Basic Computed Tomography  
Examines basic computed tomography (CT), including imaging formation, equipment, and terminology, with focus on scanning techniques of the head, neck, chest, abdomen and pelvis, and sectional anatomy. Pre-requisite: IMG 209 with a minimum grade of C. Lecture: 1.0 credit (15 contact hours).  
Components: Lecture  
Attributes: Technical

IMG 219(6)  
Course ID: 005618  
Clinical Practice IV  
Provides structured clinical experience through competency-based assignments that focus on the extremities, bony and visceral thorax, abdomen, vertebral column, and cranium. Includes arthrography and contrast studies of the digestive urinary, and central nervous systems, as well as basic CT scanning procedures. Pre-requisite: IMG 209 with a minimum grade of C. Clinical: 6.0 credits (360 contact hours).  
Components: Clinical  
Attributes: Technical

IMG 220(4)  
Course ID: 004301  
Radiography V  
Introduces equipment and advanced modalities used to complement diagnostic radiology. Includes principles of radiation biology, radiation protection, pathology and the systematic classifications of disease. Provides for a discussion of professional and legal standards. Pre-requisite: IMG 210 with a grade of C or greater. Co-requisite: IMG 221. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).  
Components: Laboratory, Lecture  
Attributes: Technical
IMG 221(6)  Course ID: 004302  Clinical V
Continues IMG 211 to provide experience with equipment operation, application of patient care, set-up of correct technical factors for radiographic exposures, and positioning patients accurately for radiographic exams. Provides opportunities for more responsibility and independence with previously learned procedures.  Pre-requisite: IMG 211 with a grade of C or greater.  Co-requisite: IMG 220. Clinical: 6.0 credits (360 contact hours).
Components: Clinical  Attributes: Technical

IMG 224(2)  Course ID: 005615  Radiation Protection & Biology
Examines principles of radiation protection and measurement, as well as basic radiation biology principles, particularly the effects of various radiation levels on living organisms. Pre-requisite: IMG 214 and IMG 216 with a minimum grade of C. Lecture: 2.0 credits (30 contact hours).
Components: Lecture  Attributes: Technical

IMG 228(2)  Course ID: 005619  Radiography Seminar
Introduces the format, rules, and regulations regarding certification by the American Registry of Radiologic Technologists (ARRT) and state certification requirements. Pre-requisite: IMG 214 and IMG 216 with a minimum grade of C. Lecture: 2.0 credits (30 contact hours).
Components: Lecture  Attributes: Technical

IMG 229(6)  Course ID: 005617  Clinical Practice V
Provides structured clinical experience through competency-based assignments that focus on the extremities, bony and visceral thorax, abdomen, vertebral column, and cranium. Includes arthrography and contrast studies of the digestive, urinary, and central nervous systems, as well as basic CT scanning procedures. Pre-requisite: IMG 214 and IMG 216 with a minimum grade of C. Clinical: 6.0 credits (360 contact hours).
Components: Clinical  Attributes: Technical

IMG 230(3)  Course ID: 004826  Sectional Anatomy for Advanced Medical Imaging
Provides content on computed tomography and magnetic resonance imaging (CT/MRI) procedures including patient care, image acquisition, and cross sectional anatomy. Pre-requisite: IMG 214 and IMG 216 with a minimum grade of C. Lecture: 3.0 credits (45 contact hours).
Components: Lecture  Attributes: Technical

IMG 230(3)  Course ID: 006617  Pathology for Advanced Medical Imaging Modalities
Examines diseases commonly diagnosable via computed tomography (CT) and/or magnetic resonance imaging (MRI). Traces the disease or trauma process from its description, etiology, symptoms, and diagnosis with appearance on CT and/or MRI scans. Pre-requisite: IMG 214 and IMG 216 with a minimum grade of C or consent of instructor defined by enrollment in an accredited Nuclear Medicine program or enrollment in second year of an accredited Radiography program or ARRT registry or NMTCB registry. Lecture: 3.0 credits (45 contact hours).
Components: Lecture  Attributes: Technical

IMG 230(3)  Course ID: 004827  Computed Tomography Physics & Instrumentation
Examines the physical principles and instrumentation involved in computed tomography (CT). Examines the history and evolution of CT, and the physics of radiation and CT. Includes the study of configuration, collimation, functions, processing, and quality of CT systems. Pre-requisite: IMG 214 and IMG 216 with a minimum grade of C or consent of instructor defined by enrollment in an accredited Nuclear Medicine program or enrollment in second year of an accredited Radiography program or ARRT registry or NMTCB registry. Lecture: 3.0 credits (45 contact hours).
Components: Lecture  Attributes: Technical

IMG 255(3)  Course ID: 004828  Magnetic Resonance Physics & Instrumentation
Examines the physical principles and instrumentation involved in magnetic resonance imaging (MRI). Examines the history and evolution of MRI and the physics of radiation and MRI. Includes the study of configuration, collimation, functions, processing, and quality of MRI systems operations. Pre-requisite: IMG 214 and IMG 216 with a minimum grade of C or consent of instructor defined by enrollment in an accredited Nuclear Medicine program or enrollment in second year of an accredited Radiography program or ARRT registry or NMTCB registry. Lecture: 3.0 credits (45 contact hours).
Components: Lecture  Attributes: Technical

IMG 260(5)  Course ID: 005332  Computed Tomography Imaging Procedures
Examines the procedures, positioning, and equipment involved in computed tomography (CT) imaging. Pre-requisite: IMG 214 and IMG 216 with a minimum grade of C or consent of instructor defined by enrollment in an accredited Nuclear Medicine program or enrollment in second year of an accredited Radiography program or ARRT registry or NMTCB registry. Lecture: 3.0 credits (45 contact hours).
Components: Lecture  Attributes: Technical

IMG 265(3)  Course ID: 004829  Magnetic Resonance Imaging Technology
Focuses on patient care and imaging areas of magnetic resonance imaging (MRI) and magnetic resonance angiography (MRA). Explores topics of image formation, tissue characteristics, resolution, imaging options, and parameters, post-processing, and patient characteristics. Relates specific MRI and MRA exams for body image systems. Pre-requisite: IMG 214 and IMG 216 with a minimum grade of C or consent of instructor defined by enrollment in an accredited Nuclear Medicine program or enrollment in second year of an accredited Radiography program or ARRT registry or NMTCB registry. Lecture: 3.0 credits (45 contact hours).
Components: Lecture  Attributes: Technical

IMG 285(4)  Course ID: 015558  Computed Tomography Clinical Practice I
Provides a structured clinical experience through sequential competency-based assignments that focus on the upper and lower extremities, bony and visceral thorax, abdominal and pelvic cavities, and cranium. Provides necessary clinical correlation of data acquisition concepts and basic scanning parameters. Pre-requisite: IMG 214 and IMG 216 with a minimum grade of C; ARRT certification and completion of Radiography Program. Co-requisite: IMG 240 & IMG 250. Clinical: 4.0 credits (240 contact hours).
Components: Clinical  Attributes: Technical

IMT 100(3)  Course ID: 001578  Welding for Maintenance
Provides basic instruction needed for student to weld using SMAW (Stick), GMAW (MIG), GTAW (TIG), and Oxygen-Fuel processes. Co-requisite: IMT 101. Lecture: 3 credits (45 contact hours).
Components: Lecture  Attributes: Technical

IMT 101(2)  Course ID: 001579  Welding for Maintenance Lab
Provides application of basic welding skills used in SMAW (Stick), GMAW (MIG), GTAW (TIG) and Oxygen-Fuel. Co-requisite: IMT 100. Lecture: 2 credits (60 contact hours).
Components: Laboratory  Attributes: Technical

IMT 110(3)  Course ID: 001580  Industrial Maintenance Electrical Principles Lab
Introduces the theory of electricity and magnetism and the relationship of voltage, current, resistance, and power in electrical circuits. Develops an understanding of alternating and direct current fundamentals. Applies formulas to analyze the operation of AC and DC circuits. Co-requisite: IMT 111. Lecture: 3 credits (45 contact hours).
Components: Laboratory  Attributes: Technical

IMT 111(2)  Course ID: 001581  Industrial Maintenance Electrical Principles Lab
Verifies knowledge of basic theory by making measurements in working AC and DC circuits. Provides for the construction of various types of circuits and the measurement of their parameters. Stresses the use of test equipment, safety, and troubleshooting. Co-requisite: IMT 110. Lecture: 2 credits (30 contact hours).
Components: Laboratory  Attributes: Technical

IMT 116(5)  Course ID: 001583  Maintenance Machining I Lab
Includes the application of fundamental machining operations necessary for the success of Maintenance Technicians in the field who are required to be proficient in basic machining operations. Co-requisite: IMT 116. Lecture: 2 credits (30 contact hours).
Components: Laboratory  Attributes: Technical

IMT 120(3)  Course ID: 001584  Industrial Maintenance Rotating Machinery
Students will learn the basic principles needed for the proper maintenance of AC and DC motors. Pre-requisite: Permission of the instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture  Attributes: Technical

IMT 121(2)  Course ID: 001585  Industrial Maintenance Rotating Machinery Lab
Provides practical experience in the construction, operation and maintenance of AC motors and alternators and DC motors and generators. Co-requisite: IMT 120. Lecture: 2 credits (60 contact hours).
Components: Laboratory  Attributes: Technical
IMT 140(3) Course ID: 005594
Industrial Mechanics
Introduces the fundamental principles of fluid power, mechanical systems, and the relationship between voltage, current, resistance, and power in electrical circuits. Presents a broad range of technical information used in industry today by technicians, mechanics, and maintenance personnel. Co-requisite: IMT 141. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

IMT 141(1) Course ID: 005595
Industrial Mechanics Lab
Provides laboratory experiences for constructing and adjusting basic fluid power circuits, installing and adjusting mechanical drive components, and taking measurements in operational AC and DC electrical circuits. Stresses the use of common hand tools, test instruments, safety, and troubleshooting. Co-requisite: IMT 140. Lab: 1 credit (30 contact hours).
Components: Laboratory Attributes: Technical

IMT 150(3)
Course ID: 001588
Maintaining Industrial Equipment I
Introduces the student to maintenance techniques and procedures used to maintain industrial equipment. Co-requisite: IMT 151 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Also Offered in Modules, Technical

IMT 151(2)
Course ID: 001589
Maintaining Industrial Equipment I Lab
Provides the student with lab experience in the maintenance of industrial equipment. Co-requisite: IMT 150 or Consent of Instructor. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Also Offered in Modules, Technical

IMT 198(1 - 8)
Course ID: 001590
Instructor Consent Required
Practicum
Provides supervised on-the-job work experience related to the student’s educational objectives. Students participating in the Practicum do not receive compensation. Pre-requisite: Permission of Instructor. Practicum: 1-8 credits (75-600 contact hours).
Components: Practicum Attributes: Technical

IMT 199(1 - 8)
Course ID: 001591
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 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
Introduces the student to the theory of robots including applications, basic programming, components, industrial robotic safety standards, industrial robots classifications, key programming techniques, robotic motion concepts, and terminology. Instructs students on the concepts of preventive and predictive maintenance techniques required for a robot and their backup systems and recovery procedures. Provides the opportunity for the industrial maintenance student to develop, set up, and integrate work cells into manufacturing systems at a beginning level. Pre-requisite: IMT 110 and IMT 111 or Consent of Instructor. Lecture/Lab: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

IMT 210(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: Also Offered in Modules, Technical

IMT 220(3)
Course ID: 001593
Industrial Maintenance Electrical Motor Controls I Lab
Incorporates an application of common symbols used in motor control circuits, fundamentals of electrical schematics and wiring diagrams, principles of relays, motor starters, switches, pilot devices, sensing devices, and indicator lights, and the different types and operations of basic motor control circuits. Pre-requisite: (IMT 110 and IMT 111) or consent of instructor. Co-requisite: IMT 220. Lab: 2 credits (60 contact hours).
Components: Laboratory Attributes: Also Offered in Modules, Technical

IMT 221(2)
Course ID: 006422
Industrial Maintenance Motor Controls II
Addresses 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 220 and IMT 221 or consent of instructor. Co-requisite: IMT 223. Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Also Offered in Modules, Technical

IMT 230(5)
Course ID: 001594
Industrial Maintenance of PLCs
This course includes the theory of programmable logic controllers to include installation, programming, interfacing, and troubleshooting of industrial PLC’s. Pre-requisite: IMT 240 5 credits (135 contact hours).
Components: Lecture Attributes: Technical

IMT 231(2)
Course ID: 001595
Industrial Maintenance of PLC’s Lab
Addresses the diversity of PLC control devices and applications used in industry today. Safety and electrical lockouts are also included. Pre-requisite: IMT 110 and IMT 111 or IMT 130 and 131, with a grade of “C” or greater) or Consent of Instructor. Co-requisite: IMT 230 or Consent of Instructor. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

IMT 240(6)
Course ID: 001596
Industrial Maintenance Motor Control Concepts
Addresses the diversity of control devices and applications used in industry today with safety and electrical lockouts included. The basic theory of programmable logic controllers is also included. Pre-requisite: [IMT 110 and IMT 111] or IMT 130 and IMT 131 with a grade of “C” or greater) or Consent of Instructor. Co-requisite: IMT 241 or Consent of Instructor. Lecture: 6 credits (90 contact hours).
Components: Lecture Attributes: Technical

IMT 250(2)
Course ID: 001598
Maintaining Industrial Equipment II
Integrates the student’s accumulative knowledge from the IMT 150 and IMT 151 courses. Emphasizes troubleshooting techniques and applied machine repair situations. Provides the opportunity for the student to apply learned skills from all areas of the curriculum. Pre-requisite: IMT 150 and 151 with a grade of “C” or greater or consent of instructor. Co-requisite: IMT 251 or consent of instructor. Lecture: 2.0 credits (30 contact hours).
Components: Lecture Attributes: Technical

IMT 251(3)
Course ID: 001599
Maintaining Industrial Equipment II Lab
Complements IMT 250 and consists of advanced, specific and assigned machine repair tasks. Pre-requisite: IMT 150 and 151 with a grade of “C” or greater or Consent of Instructor. Co-requisite: IMT 250 or consent of instructor. Laboratory: 3.0 credits (90 contact hours). Lab: 3.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical

IMT 260(7)
Course ID: 006546
Presswork and Die Maintenance
Includes the fundamental concepts and machining operations utilized by the industrial maintenance technician to be proficient in the field of stamping press and die maintenance. Pre-requisite: IMT 100 and IMT 101 and (IMT 115 & IMT 116) or (IMT 114) or (IMT 110 & IMT 112) or consent of instructor. Lecture: 2 credits (30 contact hours). Lab: 5 credits (150 contact hours).
Components: Lecture Attributes: Technical

IMT 280(3)
Course ID: 001600
Advanced Programmable Logic Controllers
Covers advanced theory programmable logic controllers to include designing applications, programming, interfacing and troubleshooting of industrial PLCs. Pre-requisite: [IMT 220 and IMT 221 with a grade of “C” or greater] or (equivalent) or Consent of Instructor. Co-requisite: IMT 281 or Instructor Consent. 3 credits (45 contact hours).
Components: Lecture Attributes: Also Offered in Modules, Technical

IMT 281(2)
Course ID: 001601
Programmable Logic Controllers Lab
Provides practical applications of the theory in IMT 280 to include installation, programming, interfacing and troubleshooting of industrial PLCs. Pre-requisite: [IMT 220 and 221] with a grade of C or greater) or Consent of Instructor. Co-requisite: IMT 280 or Consent of Instructor. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Also Offered in Modules, Technical

IMT 289(1)
Course ID: 007373
Industrial Maintenance Technology Capstone
Serves as the capstone course for the Industrial Maintenance Technology degree program. Integrates prior learning outcomes into a single integrated learning experience. Includes preparation for an exit exam that all program graduates must take. Pre-requisite: BRX 120 or ELT 102 and FPX 100 and FPX 101 and IMT 100 and IMT 101 and IMT 110 and IMT 111 and IMT 150 and 151 and IMT 220 and 221) or consent of instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture Attributes: Technical

IMT 290(1 - 3)
Course ID: 008102
Instructor Consent Required
Special Problems
Provides an opportunity to develop advanced skills in topics related to industrial maintenance. Pre-requisite: Consent of Instructor. Laboratory: 1.0 credits (30-90 contact hours).
Components: Laboratory Attributes: Technical

IMT 100(1.75)
Course ID: 005915
Welding for Maintenance Safety
Provides basic instruction needed for student to weld using Oxy-Fuel. Co-requisite: IMT 1011 (or consent of instructor). Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture
IMT 1002(0.75) Course ID: 005916
Welding for Maintenance SMAW (Stick Welding)
Provides basic instruction needed for student to weld using Shielded Metal Arc Welding (SMAW). Co-requisite: IMT 1012 (or consent of instructor). Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

IMT 1003(0.75) Course ID: 005917
Welding for Maintenance GMAW (MIG Welding)
Provides instruction of setup and use of GMAW (MIG welding) equipment. Co-requisite: IMT 1013 (or consent of instructor). Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

IMT 1004(0.75) Course ID: 005918
Welding for Maintenance GTAW (TIG Welding)
Provides instruction of setup and use of GTAW (TIG welding) equipment. Co-requisite: IMT 1014 (or consent of instructor). Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

IMT 1011(0.5) Course ID: 005919
Welding for Maintenance Safety and Cutting Lab
Provides application of welding safety and use of oxy-fuel cutting equipment. Co-requisite: IMT 1001 (or consent of instructor). Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

IMT 1012(0.5) Course ID: 005920
Welding for Maintenance SAW (Stick Welding) Lab Provides application of setup and use of SAW (stick welding) equipment. Co-requisite: IMT 1002 (or consent of instructor). Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

IMT 1013(0.5) Course ID: 005921
Welding for Maintenance GMAW (MIG Welding) Lab Provides application of setup and use of GMAW (MIG welding) equipment. Co-requisite: IMT 1003 (or consent of instructor). Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

IMT 1151(0.2) Course ID: 006406
General Shop Knowledge
Includes fundamental machining operations necessary for the success of Maintenance Technicians in the field who are required to be proficient in basic machining operations. Co-requisite: IMT 1161 or Consent of Instructor. Lecture: 0.2 credit (3 contact hours).
Components: Lecture

IMT 1152(0.1) Course ID: 006407
Vertical and Horizontal Bandsaw Operations
Introduces vertical and horizontal bandsaw operations including the selection of feeds and speeds as well as blade welding. Co-requisite: IMT 1162 or Consent of Instructor. Lecture: 0.1 credit (1.5 contact hours).
Components: Lecture

IMT 1153(0.3) Course ID: 006408
Drill Press Operations and Procedures
Introduces drill press operations including the selection of feeds and speeds, layout, drill bit selection and sharpening, and precision drilling operations. Co-requisite: IMT 1163 or Consent of Instructor. Lecture: 0.3 credit (4.5 contact hours).
Components: Lecture

IMT 1154(0.8) Course ID: 006409
Lathe Operations and Procedures
Introduces the operations including the lathe components, grinding tool bits, the selection of feeds and speeds, turning operations, and threading. Pre-requisite: IMT 1151 or Consent of Instructor. Co-requisite: IMT 1164 or Consent of Instructor. Lecture: 0.8 credit (12 contact hours).
Components: Lecture

IMT 1155(0.6) Course ID: 006410
Milling Machine and Surface Grinder Operations and Procedures
Introduces milling and surface grinding operations including vise alignment, trimming, selection of feeds and speeds, form tools, dressing grinding wheels. Pre-requisite: IMT 1151 or Consent of Instructor. Co-requisite: IMT 1165 or Consent of Instructor. Lecture: 0.6 credit (9 contact hours).
Components: Lecture

IMT 1161(0.5) Course ID: 006411
General Shop Knowledge Lab
Includes the application of fundamental machining operations necessary for the success of Maintenance Technicians in the field who are required to be proficient in basic machining operations. Co-requisite: IMT 1151 or Consent of Instructor. Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

IMT 1162(0.5) Course ID: 006412
Vertical and Horizontal Bandsaw Operations Lab
Introduces vertical and horizontal bandsaw operations including the selection of feeds and speeds as well as blade welding. Co-requisite: IMT 1152 or Consent of Instructor. Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

IMT 1163(0.5) Course ID: 006413
Drill Press Operations and Procedures Lab
Introduces drill press operations including the selection of feeds and speeds, layout, drill bit selection and sharpening, and precision drilling operations. Co-requisite: IMT 1153 or Consent of Instructor. Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

IMT 1164(2) Course ID: 006414
Lathe Operations and Procedures Lab
Introduces lathe operations including lathe components, grinding tool bits, the selection of feeds and speeds, turning operations, and threading. Co-requisite: IMT 1154 or Consent of Instructor. Laboratory: 2 credits (60 contact hours).
Components: Laboratory

IMT 1165(1.5) Course ID: 006415
Milling Machine and Surface Grinder Operations and Procedures Lab
Introduces milling and surface grinding operations including vise alignment, trimming, selection of feeds and speeds, form tools, dressing grinding wheels. Pre-requisite: IMT 1161 or Consent of Instructor. Co-requisite: IMT 1155 or Consent of Instructor. Laboratory: 1.5 credit (45 contact hours).
Components: Laboratory

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 Consent of Instructor. Co-requisite: IMT 2211. 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. Co-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
Introduces basic motor control principles 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 2211(0.5) Course ID: 006419
Introduction to Motor Controls Lab
Addresses the importance of electrical safety and the general fundamentals of motor controls. Co-requisite: IMT 2201. Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

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 2220. 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 2221(0.6) Course ID: 006423
Principles in Process Control and Automation
Provides an overview of control systems and how they relate to servos and motor encoders. Pre-requisite: (IMT 110 and IMT 111) or Consent of Instructor. Co-requisite: IMT 2221. Lecture: 0.6 credit (9 contact hours).
Components: Lecture

IMT 2222(0.7) Course ID: 006432
Industry Standards for Control Circuit Wiring and Troubleshooting Methods
Covers industry standards related to color coding of industrial wiring control cabinets. Provides for troubleshooting techniques using electrical hand tools and developing and interpreting troubleshooting flow charts to determine phase failure and voltage drops. Pre-requisite: (IMT 110 and IMT 111) or Consent of Instructor. Co-requisite: IMT 2232. Lecture: 0.7 credit (10.5 contact hours).
Components: Lecture

IMT 2223(0.7) Course ID: 006433
Industry Standards for Installing Motors and Electronic Variable Speed Drives
Covers how to properly evaluate maintenance procedures used for installation of AC and DC motors, proper start up and shut down of electrical systems, and motor failure recovery. Pre-requisites: (IMT 110 and IMT 111) or Consent of Instructor. Co-requisite: IMT 2233. Lecture: 0.7 credit (10.5 contact hours).
Components: Lecture

IMT 2224(1) 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 servos and motor encoders. Pre-requisite: IMT 110 and IMT 111 or Consent of Instructor. Co-requisite: IMT 2221. Lecture: 0.5 credits (15 contact hours).
Components: Laboratory

IMT 2225(0.5) Course ID: 006435
Industry Standards for Control Circuit Wiring and Troubleshooting Methods Lab
Provides the lab component for IMT 2222. Covers industry standards related to color coding of industrial wiring control cabinets. Provides for troubleshooting techniques using electrical hand tools and developing and interpreting troubleshooting flow charts to determine phase failure and voltage drops. Pre-requisite: (IMT 110 and IMT 111) or Consent of Instructor. Co-requisite: IMT 2222. Laboratory: 0.5 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 2233. 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 2233. Lecture: 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 115 & IMT 116) or (MTT 114) or (MTT 110 & MTT 112) or Consent of Instructor. Lecture: 0.5 credits (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 2604 or Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).

Components: Lecture

IMT 2606(1.3) Course ID: 006552
Repair Decisions
Addresses the process for die repair decisions, basic considerations needed when repairing dies, and the control of bend by adjusting pad pressure. Pre-requisite: IMT 2605 or Consent of Instructor. Lecture: 1.3 (Contact Hours 34.5).

Components: Lecture

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 (1.5 contact hours), Lab: 1.5 credits (45 contact hours).

Components: Lecture

IMT 2802(0.75) Course ID: 006425
Programming Instructions in PLCs
Provides an overview of programming Programmable Logic Controllers Timers and Counters. Pre-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
Involves different numbering systems, their transfer from one location to another, comparing, manipulation and common math instructions used in PLC. Pre-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, sequencers, 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 IMT 221 with a grade of C or greater) or (equivalent) or Consent of Instructor). Co-requisite: IMT 2801 or Instructor Consent. Laboratory: 0.5 credits (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 numbers and sequences between different numbering systems, including fixed-point notation and floating-point notation. 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 control instructions, sequencers, shift registers, 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 125(2) Course ID: 001607
Introduction to Drywall
This course includes cutting and hanging drywall. The manufacturing processes are covered along with product options for special applications. Installation of metal studs in fabrication of walls is included also. Laboratory: 2 credits (90 contact hours).

Components: Laboratory

Attributes: Technical

INF 128(3) Course ID: 007283
Principles of Informatics
Multi-disciplinary exploration of the nature of information; how it is represented, processed, shared, preserved, and protected. Topics drawn from the fields of computing, communication, business, the natural and social sciences, and the humanities. Identifies enduring principles, examines impacts on individuals and society, provides practice with a variety of digital technologies. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: University Course (Northern Kentucky University)

INF 280(3) Course ID: 007284
Object Oriented Programming I
Elementary object-oriented programming concepts and practice: objects, classes, objects, methods, arrays, classes, design and problem-solving. An intensive introduction intended for students with programming experience. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: University Course (Northern Kentucky University)

INF 280(1) Course ID: 007285
Object Oriented Programming Laboratory
Laboratory to accompany INF 280 in which students gain hands-on experience in programming and using programming tools such as debuggers. Lab: 1.0 credit (2.0 contact hours).

Components: Laboratory

Attributes: University Course (Northern Kentucky University)

INF 282(3) Course ID: 007286
Introduction to Databases
Core concepts for the design, creation, and manipulation of relational databases. Analysis of data requirements, conceptual modeling, definition of the relational model, relational database design and normalization, and database implementation, manipulation of relational databases using relational algebra with SQL. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: University Course (Northern Kentucky University)

INF 286(3) Course ID: 007287
Introduction to Web Development
An introduction to web design and development for majors in the informatics fields. Web page creation and HTML, site organization and best practices, e-business planning, models and strategies, overview of SML and CSS, introduction to client-side and server-side programming. Lecture 3.0 credits (45 contact hours).

Components: Lecture

Attributes: University Course (Northern Kentucky University)

INS Insurance

INS 100(3) Course ID: 006586
Introduction to Insurance and Risk Management
Introduces property-casualty insurance and is a foundation for the study of insurance. Provides information on types of insurance, providers, regulatory environment, and performance measures. Describes the function of marketing, underwriting and claims. Covers insurance as a contract, introduces both property and liability loss exposure and policy provisions, and provides a basic discussion of risk management as a means of managing loss exposures. Prerequisite: 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
Course Descriptions

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**ISM 101(3) Course ID: 006587**

**Foundations of Insurance Production**

Introduces principles of insurance production and agency and sales management. Emphasizes insurance products and insurance markets in the context of personal lines coverages as well as limited commercial lines coverages. Pre-requisite: Reading and English assessment scores above the KCTCS developmental placement level or successful completion of the prescribed developmental course(s). INS 100 or consent. MT 150 or above. Lecture: 3.0 credits (45 contact hours).

**Components:** Lecture

**Attributes:** Technical

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**INS 183(3) Course ID: 006589**

**Agency Operations and Sales Management**

Focuses on the producer's office environment and sales management techniques. Emphasizes how management concepts can be applied to the producer's sales and to the business of running an agency. Pre-requisite: INS 182. Lecture: 3.0 credits (45 contact hours).

**Components:** Lecture

**Attributes:** Technical

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**ISM 102(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

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**IST 233(3) Course ID: 004618**

**Statistical Process Control**

Introduces concepts of instrumented 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

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**ITE 250(3) Course ID: 004619**

**Team Dynamics and Problem Solving**

Emphasizes the use of a systematic problem-solving model while building skills for team members and leaders. Lecture: 3 credits (45 contact hours).

**Components:** Lecture

**Attributes:** Technical

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**ITE 233(3) Course ID: 004618**

**Team Dynamics and Problem Solving**

Introduces students to the principles and methods used for controlling the quality of goods produced. Lecture: 3.0 credits (45 contact hours).

**Components:** Lecture

**Attributes:** Technical
KHP Kinesiology and Health Promotion

KHP 100(1) Course ID: 002299
Walking
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours).
Components: Laboratory Attributes: Other

KHP 101(1) Course ID: 002300
Weightlifting
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours).
Components: Laboratory Attributes: Other

KHP 104(1) Course ID: 002304
Beginning Swimming
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours).
Components: Laboratory Attributes: Other

KHP 106(1) Course ID: 002306
Beginning Bowling
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours).
Components: Laboratory Attributes: Other

KHP 107(1) Course ID: 002307
Fitness
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours).
Components: Laboratory Attributes: Other

KHP 109(1) Course ID: 002309
Dancing
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours).
Components: Laboratory Attributes: Other

KHP 115(1) Course ID: 002315
Martial Arts
Provides students with beginning instruction and experience in self-defense, basic exercise, and disciplines associated with martial arts. Lab: 1 credit (30 contact hours).
Components: Laboratory Attributes: Other

KHP 116(1) Course ID: 002316
Intermediate Martial Arts
Provides students with intermediate instruction and experience in basic exercise and disciplines associated with martial arts. Pre-requisite: KHP 115. Lab: 1 credit (30 contact hours).
Components: Laboratory Attributes: Other

KHP 121(1) Course ID: 002321
Aerobics
Includes beginning conditioning activities and/or vigorous nonstop rhythmic movement patterns designed to improve or maintain cardiovascular endurance for students at all levels of fitness. Lab: 1 credit (30 contact hours).
Components: Laboratory Attributes: Other

KHP 122(1) Course ID: 002322
Low-Impact Aerobics
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours).
Components: Laboratory Attributes: Other

KHP 123(1) Course ID: 002323
Basketball
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours).
Components: Laboratory Attributes: Other

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 skills activities. Courses are designed for students who already possess intermediate skills in the activity. Instructors will assess skill at start of course. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Assignment of specific title will occur internally in the department. Laboratory: 3 hours. Pre-requisite: Completion of comparable service course or demonstrated competency.
Components: Laboratory Attributes: Other

KHP 138(1) Course ID: 003855
Beginning Yoga
Provides students with instruction and activities associated with beginning yoga. Lab: 1 credit (30 contact hours).
Components: Laboratory Attributes: Other
KHP 139(1) Course ID: 003856
Lifetime Sports
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours).
Components: Laboratory
Attributes: Technical
KHP 140(1) Course ID: 002341
Advanced Weight Training
Instruction in a variety of motor skills activities. Courses are for students who already possess intermediate skills in the activity. Instructors will assess skill at start of course. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Assignment of specific title will occur internally in the department. Laboratory: 3 hours. Pre-requisite: Completion of comparable service course or demonstrated competency.
Components: Laboratory
Attributes: Other
KHP 142(1) Course ID: 002342
Advanced Aerobics
Instruction in a variety of motor skills activities. Courses are for students who already possess intermediate skills in the activity. Instructors will assess skill at start of course. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Assignment of specific title will occur internally in the department. Laboratory: 3 hours. Pre-requisite: Completion of comparable service course or demonstrated competency.
Components: Laboratory
Attributes: Other
KHP 143(1) Course ID: 002343
Intramurals
Instruction in a variety of motor skills activities. Courses are for students who already possess intermediate skills in the activity. Instructors will assess skill at start of course. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Assignment of specific title will occur internally in the department. Laboratory: 3 hours. Pre-requisite: Completion of comparable service course or demonstrated competency.
Components: Laboratory
Attributes: Other
KHP 145(3) Course ID: 003870
Concepts of Health and Fitness
Current concepts of health and fitness covering such topics as the benefits of physical fitness, principles of fitness training, prevention of cardiovascular disease, and basic concepts of nutrition and weight management. Emphasis will be on the promotion of health lifestyles. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other
KHP 146(1) Course ID: 016371
Intermediate Yoga
Provides students with intermediate instruction and activities associated with yoga. Laboratory: 1 credit (30 contact hours).
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 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 credits (45 contact hours).
Components: Lecture
Attributes: Technical
KHP 190(2) Course ID: 000029
First Aid and Emergency Care
A study of first aid subject matter and orientation in the various first aid teaching methods. Lectures and demonstrations on first aid measures with skill training. American Red Cross Certificate made available. Lecture: 1 hour; Laboratory: 2 hours.
Components: Laboratory, Lecture
Attributes: Other
KHP 225(3) Course ID: 006818
Exercise Techniques and Physical Training
Focuses on the core components of personal training. Provides information and resources necessary to pass personal fitness trainer certification. Pre-requisite: BIO 135 or MSG 100. 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 (80 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: [KMA 100 or NAA 100 or NAA 125] and six months of work experience as a Kentucky Medicaid Nurse Aide) or Consent. Lecture/Lab: 5 credits (105 contact hours).
Components: Lecture
Attributes: Technical
KMA 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 credits (45 contact hours).
Components: Lecture
Attributes: Technical
KMA 160(3) Course ID: 006817
Personal Nutrition and Fitness
Introduces the importance of daily diet and nutrition. Addresses the role of the personal trainer in helping clients to recognize and decrease risks for chronic diseases. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical
KMA 190(2) Course ID: 000029
First Aid and Emergency Care
A study of first aid subject matter and orientation in the various first aid teaching methods. Lectures and demonstrations on first aid measures with skill training. American Red Cross Certificate made available. Lecture: 1 hour; Laboratory: 2 hours.
Components: Laboratory, Lecture
Attributes: Other
LEAD Leadership Studies
LEAD 200(3) Course ID: 006761
Introduction to Leadership Studies
The purpose of the course is to provide students a better understanding of leadership from multiple angles and perspectives. Students will explore the different ways leadership has been defined and studied. Students enrolled in this course will read leadership theory, discuss leadership concepts, and discuss cases portraying leaders who exemplify or challenge these theories. Additionally, students will explore the relevance of leadership theory and concepts to the work that will perform as future leaders in their careers and communities. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: University Course (Western Kentucky University)
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: University Course (Northern Kentucky University)
LIT Library Information Technology
LIT 119(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. Pre-requisite: LIT 115 or permission of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
LIT 288(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
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**LIT 200(3) Seminar in Kentucky Literature**
This is an online or computer-assisted seminar course in Kentucky literature recognizing, examining, and studying distinct regional differences and similarities with concentrations on major contemporary and traditional Kentucky writers and their texts. Topics will vary, from a group of authors, and historical period or aesthetic movement, to a genre, a theme, or an aspect of literary theory. Lecture: 3 credits (45 contact hours).

**LIT 230(3) Web Publishing for Libraries**
This is a course in web publishing for library web sites, including HTML code, web page authoring software, web page and web site design, and trends in library web sites. This is a distance education course with a service learning component. Pre-requisite: LIT 115 or consent of instructor. Lecture: 3 credits (45 contact hours).

**LIT 240(3) Literature of Appalachian Kentucky**
This is an online or computer-assisted introductory survey course in the Appalachian literature of Kentucky concentrating on the major contemporary and traditional writers who are distinctly identified with that region. Approaches may include a group of authors, an historical period or aesthetic movement, a genre, a theme, or an aspect of literary theory. Lecture: 3 credits (45 contact hours).

**LIT 242(3) Literature of Western Kentucky**
This is an online or computer-assisted introductory survey course in the literature of Western Kentucky which concentrating on the major contemporary and traditional writers who are distinctly identified with that region. Approaches may include a group of authors, an historical period or aesthetic movement, a genre, a theme, or an aspect of literary theory. Lecture: 3 credits (45 contact hours).

**LIT 243(3) 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).

**LIT 245(3) 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).

**LIT 247(3) Library Services for Adults**
Introduces library services for adults. Includes adult literature, collection development, programming, circulation services, reference services, and customer relations. Lecture: 3.0 credits (45 contact hours).

**LIT 248(3) Library Services for Preschool Children**
Introduces library services for preschool children, age infant to 5 years. Includes library programming development and production, preschool children’s literature, services for parents and for child care services, collection development, and legal issues. Lecture: 3.0 credits (45 contact hours).

**LIT 285(3) History of Libraries**
This course is a survey of the development of libraries from ancient times to the present, with emphasis on academic and public libraries in the United States. Attention is given to the interaction of libraries with economic, social and political trends in the larger society. Pre-requisite: LIT 115 or consent of instructor. Lecture: 3 credit (45 contact hours).

**LIT 289(1 - 3) Selected Topics in Library Information Technology**
Expands library course offerings as new technologies develop and/or as new issues evolve. Lecture: 1.0 - 3.0 credits (15-45 contact hours).

**LIT 299(1 - 3) Seminar in Kentucky Literature**
This course is a survey of the development of libraries from ancient times to the present, with emphasis on academic and public libraries in the United States. Attention is given to the interaction of libraries with economic, social and political trends in the larger society. Pre-requisite: LIT 115 or consent of instructor. Lecture: 3 credit (45 contact hours).

**LIT 300(3) Genealogy Services in Libraries**
Introduces genealogy services in libraries. Surveys genealogy data sources, research methods, collection development, patron referrals, legal and ethical issues, library programming, and marketing. Lecture: 3.0 credits (45 contact hours).

**LIT 301(3) Transportation Management**
Presents an overview of the role of transportation and pricing issues; transportation modes and terminals; and transportation and third party logistics. Lecture: 3.0 credits (45 contact hours).

**LIT 302(3) 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).

**LIT 303(3) Project Management**
Introduces practical approach to managing essential resources, people, and deadlines, and real-world challenges required to bring any project in on time, on target, and on budget. Covers skills and concepts of essential project management processes, defining requirements, schedules, risk management assessment, change control, and project management software applications. Provides students with a practical approach to developing projects with opportunities to apply skills and elements by completing activities based upon real-time projects and case studies. Pre-requisite: Digital literacy or consent of instructor. Lecture: 3.0 credits (45 contact hours).

**LOM 100(3) Logistics Management**
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).

**LOM 101(3) Transportation Management**
Presents an overview of the role of transportation and pricing issues. Pre-requisite:LIT 100. Lecture: 1.0 credit (15 contact hours).

**LOM 102(3) 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).

**LOM 103(3) Project Management**
Introduces practical approach to managing essential resources, people, and deadlines, and real-world challenges required to bring any project in on time, on target, and on budget. Covers skills and concepts of essential project management processes, defining requirements, schedules, risk management assessment, change control, and project management software applications. Provides students with a practical approach to developing projects with opportunities to apply skills and elements by completing activities based upon real-time projects and case studies. Pre-requisite: Digital literacy or consent of instructor. Lecture: 3.0 credits (45 contact hours).

**LOM 104(3) Supply Chain Skills**
Presents inventory management skills and techniques. Pre-requisite: LOM 102. Lecture: 1.0 credit (15 contact hours).

**LOM 105(3) Supply Chain Sustainability**
Presents supply chain design and sustainability solutions. Pre-requisite: LOM 102. Lecture: 1.0 credit (15 contact hours).

**LOM 106(3) Global Transport**
Presents an overview of transportation risk management and global management issues. Pre-requisite: LOM 102. Lecture: 1.0 credit (15 contact hours).

**LOM 107(3) Supply Chain Overview**
Presents an overview of supply chain management and financial analysis. Pre-requisite: LOM 100. Lecture: 1.0 credit (15 contact hours).

**LOM 108(3) Logistics Activities**
Presents an overview of inventory management and customer service in logistics. Pre-requisite: LOM 101. Lecture: 1.0 credit (15 contact hours).

**LOM 109(3) Logistics Overview**
Presents an overview of general logistics concepts and organizational issues. Lecture 1.0 credit (15 contact hours).

**LOM 110(3) Logistics Management**
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).

**LOM 111(3) Transportation Overview**
Presents an overview of the role of transportation and pricing issues. Pre-requisite:LIT 100. Lecture: 1.0 credit (15 contact hours).

**LOM 112(3) Transportation Modes**
Presents transportation modes and terminals. Pre-requisite: LOM 111. Lecture: 1.0 credit (15 contact hours).

**LOM 113(3) Global Transport**
Presents an overview of transportation risk management and global management issues. Pre-requisite: LOM 102. Lecture: 1.0 credit (15 contact hours).

**LOM 114(3) Supply Chain Skills**
Presents inventory management skills and techniques. Pre-requisite: LOM 102. Lecture: 1.0 credit (15 contact hours).

**LOM 115(3) Supply Chain Sustainability**
Presents supply chain design and sustainability solutions. Pre-requisite: LOM 102. Lecture: 1.0 credit (15 contact hours).
Lecture: 1 credit (15 contact hours).
Components: Lecture

LOM 1803(1)  
Course ID: 016375  
Using Microsoft Project  
Provides students with a practical approach to developing projects with opportunities to apply skills and elements by completing activities based upon real-time projects and case studies. Pre-requisite: LOM 1802. Lecture: 1 credit (15 contact hours).
Components: Lecture

LOM 2021(1)  
Course ID: 016376  
Intro to Supply Chain Mgmt  
Explains the key drivers in a supply chain and their relationship to manufacturers and distributors and the benefits of integration with those departments. Pre-requisite: LOM 102. Lecture: 1 credit (15 contact hours).  
Components: Lecture

LOM 2022(1)  
Course ID: 016377  
Benefits of Supply Chain Mgmt  
Demonstrates the benefits of supply chain management in achieving supply cost reductions utilizing charts and flow plans to integrate into the workplace. Pre-requisite: LOM 2021. Lecture: 1 credit (15 contact hours).  
Components: Lecture

LOM 2023(1)  
Course ID: 016378  
Utilizing Supply Chain Mgmt  
Analyzes and develops a customer-focused supply chain utilizing effective strategies. Pre-requisite: LOM 2022. Lecture: 1 credit (15 contact hours).  
Components: Lecture

LSI Lockmasters Security Institute  

LSI 120(4)  
Course ID: 004403  
Comprehensive Security Specialist  
Training for the security professional in all aspects of security, addressing current trends in policies and procedures, including physical security, crime prevention, security surveys and contingency planning for internal and external threats. Pre-requisite: Students will be required to undergo a criminal background investigation. If a student is presently employed by a law enforcement or federal agency that requires criminal checks, this requirement may be waived by LSI. Lecture: 3 credits (45 contact hours). Laboratory: 1 credit (30 contact hours).  
Components: Laboratory, Lecture  
Attributes: Technical

LSI 130(4)  
Course ID: 004404  
GSA: Locks, Vaults & Containers Certified Technician Training  
Instruction to successfully service, maintain, perform covert and forced entry, and repair GSA approved security containers. Lecture: 3 credits (45 contact hours). Laboratory: 1 credit (30 contact hours). Pre-requisite: Instruction to successfully service, maintain, perform covert and forced entry, and repair GSA approved security containers.  
Components: Laboratory, Lecture  
Attributes: Technical

LSI 140(1)  
Course ID: 004406  
Managing Terrorism and Other Crises  
An overview of domestic and international terrorist groups, introducing the concept of contingency planning in comparison to other types of operations planning, and providing basic knowledge regarding the management of a bomb threat and identification of explosives and incendiary devices. Pre-requisite: Students will be required to undergo a criminal background investigation. If a student is presently employed by a law enforcement or federal agency that requires criminal checks, this requirement may be waived by LSI. Lecture: 1 credit (15 contact hours).  
Components: Lecture  
Attributes: Technical

MA 108R(3)  
Course ID: 006621  
Intermediate Algebra  
This course is remedial in nature and covers material commonly found in second year high school algebra. Specific topics to be discussed include numbers, fractions, algebraic expression, simplifying, factoring, laws of exponents, linear equations, simple graphs and polynomial algebra. This course is not available for degree credit toward a bachelor’s degree. Credit not available on the basis of special examination. Pre-requisite: One year of high school algebra. Recommended for students with a Math ACT score of 18 or less, or consent of department. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: Remedial - Mathematics, University Course (University of Kentucky)

MA 109(3)  
Course ID: 005805  
College Algebra  
Selected topics in algebra. Develops manipulative algebraic skills and mathematical reasoning required for further study in mathematics. Includes brief review of basic algebra, quadratic formula, systems of linear equations, introduction to functions and graphing. This course is not available for credit to persons who have received credit in any mathematics course of a higher number with the exceptions of MA 112, 123, 162, 201 and 202. Credit not available on the basis of special examination. Pre-requisite: Two years of high school algebra and a Math ACT score of 21 or above or a Math SAT score of 510 or above; or MA 108R (UK); or appropriate score on the math placement test. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Course Equivalents: MAT 150  
Attributes: University Course (University of Kentucky)

MA 110(4)  
Course ID: 006622  
Algebra and Trigonometry for Calculus  
This is a course specifically designed for students intending to enroll in a calculus sequence. Topics will include trigonometric functions, exponentials and logarithms, graphs, polar coordinates, conic sections and systems of conics. Students may not receive credit for MA 110 and either of MA 109 or MA 112. This course is not available for credit to persons who have received credit in any higher numbered mathematics course except for MA 123, 162, 199, 201 or 202. Credit is not available by special examination. Lecture, three hours; recitation, two hours per week. Pre-requisites: Two years of high school algebra and a Math ACT score of 23 or above, or consent of department. Lecture: 3.0 credits (45 contact hours). Discussion: 1.0 credit (30 contact hours).  
Components: Discussion, Lecture  
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

MA 111(3)  
Course ID: 004907  
Contemporary Mathematics  
An introduction to concepts and applications of mathematics, with examples drawn from such areas as voting methods, apportionment, consumer finance, graph theory, biology, 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)
MA 112(2) Course ID: 006624
Trigonometry
A standard course. Includes trigonometric functions, identities, multiple-angle formulas, laws of sines and cosines, and graphs of trigonometric functions. This course is not available to persons who have received credit for any mathematics course of a higher number with the exception of MA 113, 123, 132 and 162. Credit not available by special examination. Pre-requisites: Two years of high school algebra and a Math ACT score of 21 or above or a Math SAT score of 510 or above; or MA 108R; or appropriate score on the math placement test. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

MA 113(4) Course ID: 006625
Calculus I
A course in one-variable calculus, including topics from analytic geometry. Derivatives and integrals of elementary functions (including the trigonometric functions) with applications. Lecture, three hours; recitation, two hours per week. Pre-requisites: Math ACT of 27 or above, or math SAT of 620 or above, or MA 109 (UK) and MA 112 (UK), or MA 110 (UK), or consent of the department. Students who enroll in MA 113 based on their test scores should have completed a year of pre-calculus study in high school that includes the study of the trigonometric functions. Note: Math placement test recommended. Lecture: 3.0 credits (45 contact hours). Discussion: 1.0 credit (30 contact hours).
Components: Discussion, Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

MA 114(4) Course ID: 006626
Calculus II
A continuation of MA 113, primarily stressing techniques of integration. Lecture, 3 hours; recitation, 2 hours per week. Pre-requisites: High school trigonometry or MA 112 (UK); and a grade of C or better in MA 113 (UK) or MA 122 (UK). Lecture: 3.0 credit hours (45 contact hours). Discussion: 1.0 credit (30 contact hours).
Components: Discussion, Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

MA 123(4) Course ID: 006627
Elementary Calculus and Its Applications
An introduction to differential and integral calculus, with applications to business and the physical and social sciences. Not open to students who have credit in MA 113. Students who have received credit for MA 113 cannot receive credit for MA 123. Pre-requisites: Math ACT score of 26 or above, or Math SAT of 600 or above, or MA 109 (UK) or appropriate math placement score, or consent of department. Note: Math placement test recommended. Lecture: 4.0 credit hours (60 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

MA 162(3) Course ID: 006628
Finite Mathematics and Its Applications
Finite mathematics with applications to business, biology, and the social sciences. Linear functions and inequalities, matrix algebra, linear programming, probability. Emphasis on setting up mathematical models from stated problems. Pre-requisites: MA 109 (UK) or equivalent. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

MA 193(1) Course ID: 006629
Supplementary Mathematics Workshop I
Laboratory offered (only) as an adjunct to certain mathematics lecture courses. Offered only on a pass/fail basis. Co-requisites: Set by instructor. Lab 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: University Course (University of Kentucky)

MA 194(1) Course ID: 006630
Supplementary Mathematics Workshop II
Laboratory offered (only) as an adjunct to certain mathematics lecture courses. Offered only on a pass/fail basis. Co-requisites: Set by instructor. Lab 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: University Course (University of Kentucky)

MA 201(3) Course ID: 006631
Mathematics for Elementary Teachers
Sets, numbers and operations, problem solving and number theory. Recommended only for majors in elementary and middle school education. Pre-requisites: MA 109 (UK) or MA 111 (UK). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

MA 202(3) Course ID: 006632
Mathematics for Elementary Teachers
Algebraic reasoning, introduction to statistics and probability, geometry, and measurement. Pre-requisites: A grade of “C” or better in MA 201 (UK). Also recommended: a course in logic (e.g. PHI 120) or a course in calculus (e.g. MA 123 (UK)). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

MA 213(4) Course ID: 006633
Calculus III
MA 213 is a course in multivariate calculus. Topics include three dimensional vectors calculus, partial derivatives, double and triple integrals, sequences, and infinite series. Lecture, 3 hours; recitation, 2 hours per week. Pre-requisites: MA 114 (UK) or equivalent. Lecture: 3.0 credits (45 contact hours). Discussion: 1.0 credit (30 contact hours).
Components: Discussion, Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

MA 214(3) Course ID: 006634
Calculus IV
MA 214 is a course in ordinary differential equations. Emphasis is on first and second order equations and applications. The course includes series solutions of second order equations and Laplace transform methods. Pre-requisites: MA 213 or equivalent. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

MA 241(3) Course ID: 006635
Geometry for Middle School Teachers
A course in plane and solid geometry designed to give middle school mathematics teachers the knowledge needed to teach a beginning geometry course. Cannot be counted toward the mathematics minor or major. Pre-requisites: One semester of calculus or MA 201 (UK) with a grade of C or better. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

MA 500(1 - 2) Course ID: 004555
Developmental Mathematics Workshop
Provides supplemental academic support such as extra class sessions, tutoring, and/or increased monitoring to promote student success. May be associated with any developmental math course offered through KCTCS and may be repeated for each math course. Credit cannot be received by special exam. Co-requisite: Set by instructor. Laboratory: 1-2 credits (30-60 contact hours).
Components: Laboratory
Attributes: Remedial - Mathematics

MAT 555(3) Course ID: 004555
Pre-Algebra
Includes operations on integers, decimals and fractions. Introduces exponents, square roots, percents, ratios, proportions, prime factorization, basic geometry, algebraic expressions, basic linear equations, and applications. Pre-requisite: KCTCS placement examination. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics, Course Also Offered in Modules

MAT 55A(1.6) Course ID: 007338
Integers, Fractions and Decimals
Covers the properties of real numbers, prime factorization of whole numbers, rounding of whole numbers, and decimals to an indicated place value. Includes basic operations, order of operations, and absolute value on integers, fractions and decimals. Permits the conversion among fractions, decimals, and percents; evaluation of whole number powers of integers, fractions, and decimals; and the evaluation of square roots of perfect squares of integers, fractions, and decimals. Pre-requisite: KCTCS Placement examination. Lecture: 1.6 credits (24 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 55B(0.7) Course ID: 007339
Algebraic Expressions
Includes the evaluation of algebraic expressions, simplifying algebraic expressions, solving problems involving ratio and proportion, and solving problems involving percent. Pre-requisite: MAT 055A. Lecture: 0.7 credits (10.5 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 55C(0.7) Course ID: 007340
Beginning Linear Equations
Uses both the addition and multiplication properties to solve a linear equation. Includes how to determine the length of the unknown side of a right triangle using the Pythagorean theorem and to determine the perimeter, circumference, area, surface area, and volume of basic plane figures and solids. Covers how to solve applied problems using these competencies with real-world applications. Pre-requisite: MAT 055B. Lecture: 0.7 credits (10.5 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 62(3) Course ID: 007375
Intro to Workplace Mathematics
Prepares students for Business Mathematics, Applied Mathematics, and Technical Mathematics. Includes properties of algebra, using formulas, solving linear equations, percentages, ratios, proportions, plotting points, graphing lines, exponents, and measurement. Encourages applications of algebra and effective use of technology. Pre-requisite: MAT 055 or equivalent as determined by KCTCS placement examination. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics
MAT 65(3) Course ID: 004556
Basic Algebra
Includes linear equations and inequalities, integer exponents, polynomials, factoring, equations of lines and their graphs, systems of linear equations, and applications. Pre-requisite: MAT 055 or KCTCS Placement examination. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics
Course Also Offered in Modules
MAT 65A(0.8) Course ID: 007341
Linear Equations and Inequalities
Includes solving linear equations in one variable, literal equations for a specified variable, and linear inequalities. Covers writing sets using interval and set-builder notations and translating verbal statements into algebraic expressions. Pre-requisite: MAT 055 or KCTCS Placement examination. Lecture: 0.8 credits (12 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics
MAT 65B(0.5) Course ID: 007342
Polynomials
Includes the application of rules of integer exponents; addition, subtraction, and multiplication of polynomials of one or more variables, and division of polynomials of one variable. Pre-requisite: MAT 065A. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics
MAT 65C(0.8) Course ID: 007343
Lines
Includes plotting points in the rectangular coordinate plane; graphing a linear equation in two variables using multiple methods; determining the slope of a line given the two points, a graph, or an equation; determining the intercepts of a line; and determining if two lines are parallel, perpendicular, or neither based on slope. Pre-requisite: MAT 065B. Lecture: 0.8 credits (12 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics
MAT 65D(0.5) Course ID: 007344
Factoring
Includes the factoring of polynomials by finding the greatest common factor, by grouping, and by using special products. Covers factoring general trinomials and solving polynomial equations by factoring. Pre-requisite: MAT 065C. Lecture: 0.5 credits (7.5 contact hours).
Components: Laboratory
Attributes: Remedial - Mathematics
MAT 65E(0.4) Course ID: 007345
Systems of Linear Equations
Includes solving systems of linear equations in two variables using multiple methods and solving applied problems using these competencies with real world applications. Pre-requisite: MAT 065D. Lecture: 0.4 credits (6.0 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics
MAT 75(4) Course ID: 015656
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 85(3) Course ID: 007045
Intermediate Algebra
Includes rational expressions, radical expressions, rational exponents, graphing parabolas, inequalities, equations of lines, functions and applications, with emphasis on solving quadratic, rational, and radical equations. Pre-requisite: MAT 065 or MAT 075 or KCTCS placement examination. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics
MAT 98(1 – 2) Course ID: 015815
Supplemental Mathematics
Provides academic support for students scoring below the system-wide standard into a quantitative-reasoning course. Serves as supplemental co-requisite for students with borderline test scores, as defined in the KCTCS course placement policy. If students withdraw from MAT 096, they must also withdraw from the co-requisite course. Co-requisite: A quantitative-reasoning course requiring supplemental instruction. Lecture: 1.0 - 2.0 credits (15 - 30 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics
MAT 100(2) Course ID: 002374
College Algebra Workshop
Provides parallel and supplemental review of algebra skills needed for success in college algebra for students with a Math ACT of 19-21. (Credit not available by special exam; withdrawal from MAT 100 requires withdrawal from MAT 150, can be offered pass/fail or letter grade basis.) Lecture: 2 credits (30 contact hours); Pre-requisite: Concurrent enrollment in MAT 150. NOTE: Effective Fall 2010 ACT 19. Components: Lecture
Attributes: Other, Course Also Offered in Modules
MAT 105(3) Course ID: 004557
Business Mathematics
Covers basic mathematical concepts as applied to finance. Includes percentages, simple and compound interest, annuities, sinking funds, depreciation, and consumer debt, including installment buying, credit cards, and mortgages. Pre-requisite: MAT 062 or MAT 065 or equivalent as determined by KCTCS placement examination. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Quantitative Reasoning AAS
MAT 110(3) Course ID: 004558
Applied Mathematics
Includes the concepts of ratio and proportion, units and conversions, linear equations in two variables, inequalities, graphing and writing equation of a line, percents, interest, descriptive statistics, and logical symbols. Emphasizes applications in the various technologies. Pre-requisite: MAT 062 or MAT 065 or equivalent as determined by KCTCS placement examination. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Quantitative Reasoning AAS
MAT 111(3) Course ID: 004559
Technical Mathematics
Includes some mathematical concepts from algebra, geometry, and trigonometry and applications relevant to these topics. Includes unit conversions, variation, measurement of geometric figures, vectors, and solving right and oblique triangles using trigonometry. Emphasizes applications in the various technologies. Pre-requisite: MAT 062 or MAT 065 or equivalent as determined by KCTCS placement examination. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Quantitative Reasoning AAS
MAT 126(3) Course ID: 004562
Technical Algebra and Trigonometry
Examines mathematical concepts from algebra and trigonometry. Includes vectors, parabola, algebra, variation, trigonometric functions, coordinate systems, system of linear equations, quadratic, rational, exponential and logarithmic equations. Pre-requisite: MAT 065 or equivalent as determined by KCTCS placement examination. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Quantitative Reasoning AAS
MAT 146(3) Course ID: 002375 05-JAN-2015
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. 2. Successful completion of Intermediate Algebra, MAT075. MAT 126, or equivalent, or 3. KCTCS placement exam recommendation. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, Course Also Offered in Modules
MAT 150(3) Course ID: 002376
College Algebra
Includes selected topics in algebra and analytic geometry. Develops manipulative skills and concepts required for further study in mathematics. Includes linear, quadratic, polynomial, rational, exponential, logarithmic and piecewise functions, systems of equations; and an introduction to analytic geometry. (Students may not receive credit for both MAT150 and any other College Algebra or Precalculus course. Credit not available on the basis of special exam.) Lecture: 3 credits (45 contact hours). Pre-requisites: 1. Math ACT score of 22 or above. 2. Math ACT score of 19-21 with concurrent MAT 100 workshop. 3. Successful completion of Intermediate Algebra, MAT 126, or equivalent, or 4. KCTCS placement exam recommendation.
Components: Lecture
Course Equivalents: MA 108
Attributes: QR - Quantitative Reasoning, Course Also Offered in Modules
MAT 154(2) Course ID: 000552
Trigonometry
Includes trigonometric functions, identities, multiple analytic formulas, laws of sines and cosines, graphs of trigonometric functions, and inverse trigonometric functions. Pre-requisite: Completion of a college intermediate algebra course or two years of high school algebra. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
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 precalculus 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 100 course.) Lecture: 3 credits (45 contact hours). 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 MA 108R (UK) or math placement test. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Course Equivalents: MAT 150
Attributes: QR - Quantitative Reasoning
MAT 160(5) Course ID: 005312
Precalculus
Prepares students to enroll in a calculus sequence. Includes trigonometric functions, exponentials and logarithms, graphs, polar coordinates, conic sections, and systems of nonlinear equations. Students may not receive credit for both MAT 160 and either College Algebra or Trigonometry. Credit is not available by special examination. Lecture: 5 credits (75 contact hours). Pre-requisite: 1. Math ACT score of 23 or above, 2. Placement exam recommendation, or 3. Consent of instructor.
Components: Lecture
Course Equivalents: MAT 159
Attributes: QR - Quantitative Reasoning
MAT 165(3) Course ID: 005313
Finite Mathematics and its Applications
Examines finite mathematics with applications to business, biology and the social sciences including linear functions and inequalities, matrix algebra, linear programming, probability with emphasis on setting up mathematical models from stated problems. Lecture: 3 credits (45 contact hours). Pre-requisite: MAT 150 or equivalent.
Components: Lecture
Attributes: QR - Quantitative Reasoning
MAT 170(3) Course ID: 005314
Brief Calculus with Applications
Provides an introduction to differential and integral calculus with applications in biological sciences, social sciences, physical sciences, or business with an analysis of algebraic, exponential, and logarithmic functions. (Students may not receive credit for both MAT 170 and MAT 175.) Lecture: 3 credits (45 contact hours). Pre-requisite: Successful completion of MAT 150 or Math ACT 27 or above.
Components: Lecture
Attributes: QR - Quantitative Reasoning
MAT 174(4) Course ID: 000553
Calculus I
Includes topics from analytic geometry, derivatives and integrals of elementary functions, trigonometric functions, exponential functions, and logarithmic functions, and their applications. A course in one variable calculus. Pre-requisite: MATH ACT score of 27 or above, or MAT 150 and MAT 154, or MAT 159, or consent of instructor. Lecture/Lab: 4.0 credits (75 contact hours).
Components: Lecture
Course Equivalents: MAT 175
Attributes: QR - Quantitative Reasoning
MAT 175(5) Course ID: 005315
Calculus I
Examines one-variable calculus including limits, differentiation and integration of algebraic, trigonometric, exponential, logarithmic, hyperbolic, and inverse trigonometric functions with applications. Lecture: 5 credits (75 contact hours). Pre-requisite: 1. College Algebra and Trigonometry, or equivalent, with grades of "C" or higher, 2. Math ACT 27 or above, 3. Placement exam recommendation, or 4. Consent of instructor.
Components: Lecture
Course Equivalents: MAT 174
Attributes: QR - Quantitative Reasoning
MAT 184(4) Course ID: 000557
Calculus II
Stresses techniques of integration and infinite series. Includes transcendental functions and polar coordinates. A continuation of MAT 174. Pre-requisite: MAT 174 with a grade of "C" or above. Lecture/Lab: 4.0 credits (75 contact hours).
Components: Lecture
Course Equivalents: MAT 185
Attributes: QR - Quantitative Reasoning
MAT 185(5) Course ID: 005316
Calculus II
Includes applications of integration, advanced integration techniques, sequences and infinite series, and parametric and polar equations. Pre-requisite: Calculus I, or equivalent, with grade of "C" or higher, or consent of the instructor. Lecture: 5.0 credits (75 contact hours).
Components: Lecture
Course Equivalents: MAT 184
Attributes: QR - Quantitative Reasoning
MAT 190(1 - 2) Course ID: 004584
Instructor Consent Required
Mathematics Workshop
Promotes student success in mathematics by providing supplemental instruction in the form of extra class sessions. Pre-requisite: Mathematics course numbered higher than MAT 100. Lab: 1.0 - 2.0 credits (30-60 contact hours).
Components: Laboratory
Attributes: Other
MAT 195(1 - 2) Course ID: 015479
Mathematics Workshop
Promotes student success in mathematics by providing supplemental instruction in the form of extra class sessions. Co-requisite: Mathematics course numbered higher than MAT 100. Lab: 1.0-2.0 credits (30-60 contact hours).
Components: Laboratory
Attributes: Other
MAT 205(3) Course ID: 005622
Mathematics For Elementary and Middle School Teachers I
Introduces problem solving, number and numeration systems, whole numbers, integers, rational and irrational numbers, and elementary number theory. Requires demonstration of basic skills in mathematics to receive credit in this course. Pre-requisite: MAT 146 or MAT 150 or equivalent, with a minimum grade of "C". Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other
MAT 206(3) Course ID: 005623
Mathematics For Elementary and Middle School Teachers II
Introduces probability and statistics; geometric concepts including congruence and similarity; and measurement. Required demonstration of basic skills in mathematics to receive credit in this course. Pre-requisite: MAT 146 or MAT 150, or equivalent, with a minimum grade of "C". Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning
MAT 213(4) Course ID: 006894
Calculus III with Linear Algebra
Examines multivariate calculus. Includes partial differentiation, multiple integration, vector calculus, and selected topics from linear algebra including matrices, linear independence of vectors, linear transformations, characteristic values and vectors. Offered primarily for STEM majors. Pre-requisite: Successful completion of Calculus II. Lecture/Lab: 4.0 credits (75 contact hours).
Components: Lecture
Attributes: Other
MAT 214(3) Course ID: 006895
Calculus IV
Focuses primarily on first and second order equations. Includes matrix solutions of systems of linear differential equations, both homogeneous and nonhomogeneous. Also includes series solutions, Bessel equations, Laplace transforms, and operator methods. Primarily for STEM majors. Pre-requisite: Successful completion of Calculus III with Linear Algebra. Lecture: 3.0 credits (75 contact hours).
Components: Lecture
Attributes: Other
MAT 261(3) Course ID: 003966
Introduction to Number Theory
Investigates topics from classical number theory, including discussions of mathematical induction, prime numbers, division algorithms, congruences, and quadratic reciprocity. Pre-requisite: Consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning
MAT 275(4) Course ID: 005318
Calculus III
Examines multivariate calculus including parametric equations; rectangular, cylindrical, and spherical coordinate systems; vectors and vector-valued functions; limits and derivatives of functions of several variables; multiple integration; and line and surface integrals. Pre-requisite: MAT 185 or equivalent, or Consent of instructor. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning
MAT 285(3) Course ID: 005319
Differential Equations
Examines ordinary differential equations emphasizing first and second order equations and applications. Includes series solutions of second order equations and Laplace transform methods. Pre-requisite: MAT 275 or Consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning
MAT 851(0.3) Course ID: 007329
Equations of Lines
Covers the writing equations of lines from given data, verbal descriptions, and graphs; and writing the equation of a line parallel or perpendicular to a given line. Pre-requisite: MAT 065 or MAT 075 or KCTCS placement examination. Lecture: 0.3 credits (4.5 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics
MAT 852(0.6) Course ID: 007330
Absolute Value and Inequalities
Includes solving absolute value equations, compound inequalities, solving and graphing absolute value inequalities; and graphing linear inequalities in two variables. Pre-requisite: MAT 0851. Lecture: 0.6 credits (9.0 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics
MAT 853(0.4) Course ID: 007331
Rational Expressions
Includes the simplification of rational expressions, performing basic operations with rational expressions, and solving equations with rational expressions. Pre-requisite: MAT 0852. Lecture: 0.4 credits (6.0 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics
MAT 854(0.6) Course ID: 007332
Radicals
Covers the conversion between radical and rational exponent form, simplification of radicals, performance of operations with radicals, and the solution of equations involving radicals. Pre-requisite: MAT 0853. Lecture: 0.6 credits (9.0 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics
MAT 855(0.3) Course ID: 007333
Quadratics
Includes solving quadratic equations with complex solutions using completing the square and the quadratic formula. Covers graphing parabolas by finding the vertex, finding the axis of symmetry, and plotting points. Pre-requisite: MAT 0854. Lecture: 0.3 credits (4.5 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics
MAT 856(0.8) Course ID: 007334
Functions
Includes the evaluation of a function using function notation, determination of whether a given correspondence or graph represents a function, determination of the domain of a function, [and] identification of the range of a function. Includes modeling and solving applications based on linear, quadratic, and exponential functions. Pre-requisite: MAT 0855. Lecture: 0.8 credits (12 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics
MAT 1101(0.7) Course ID: 006142
Logic and Reasoning
Investigates concepts of logical symbolism, valid and invalid arguments. Uses applications throughout. Pre-requisite: MAT 065 or equivalent as determined by KCTCS placement examination. Lecture: 0.7 credit (10.5 contact hours).
Components: Lecture

MAT 1102(0.8) Course ID: 006143
Statistics
Develops concepts of descriptive statistics. Emphasizes applications throughout. Pre-requisite: MAT 065 or equivalent as determined by KCTCS placement examination. Lecture: 0.8 credit (12 contact hours).
Components: Lecture

MAT 1103(0.7) Course ID: 006144
Algebra and Graphing
Develops concepts of ratio and proportion, linear equations in two variables, inequalities, graphing and writing the equation of a line. Emphasizes applications throughout. Pre-requisite: MAT 065 or equivalent as determined by KCTCS placement examination. Lecture: 0.7 credit (10.5 contact hours).
Components: Lecture

MAT 1104(0.8) Course ID: 006145
Consumer Math, Geometry and Measurement
Develops concepts of ratio and proportion, measurement, units and conversions, percents and interest. Emphasizes applications throughout. Pre-requisite: MAT 065 or equivalent as determined by KCTCS placement examination. Lecture: 0.8 credit (12 contact hours).
Components: Lecture

MAT 1161(1) Course ID: 006438
Technical Trigonometry
Investigates mathematical concepts from trigonometry including vectors and solving right and oblique triangles. Uses applications relevant to trigonometry from the various technologies. Pre-requisite: MAT 65 or equivalent as determined by KCTCS placement examination. Lecture: 1.0 credit (15 contact hours)
Components: Lecture

MAT 1162(1) Course ID: 006439
Technical Measurement
Investigates mathematical concepts from algebra and geometry. Uses applications from the various technologies relevant to these topics including unit conversion and measurement of geometric figures. Pre-requisite: MAT 65 or equivalent as determined by KCTCS placement examination. Lecture: 1.0 credit (15 contact hours)
Components: Lecture

MAT 1163(1) Course ID: 006440
Technical Geometry and Variation
Investigates mathematical concepts from algebra and geometry. Uses applications from the various technologies relevant to these topics including variation and measurement of geometric figures. Pre-requisite: MAT 65 or equivalent as determined by KCTCS placement examination. Lecture: 1.0 credit (15 contact hours)
Components: Lecture

MAT 1461(0.4) Course ID: 015855
Voting Theory
Explains voting theory and describe voting methods. Pre-requisite: Math ACT score of 19 or above, 2. Successful completion of Intermediate Algebra, MAT 126, or equivalent, or 3. KCTCS placement exam recommendation. Lecture: 0.4 credits (6 contact hours).
Components: Lecture

MAT 1462(1.1) Course ID: 015856
Finance
Analyzes finances, calculate compound interest, analyze savings plans and investments, calculate installment loan payments, calculate income taxes, and analyze budgets. Pre-requisite: MAT 1461. Lecture: 1.1 credits (16.5 contact hours).
Components: Lecture

MAT 1463(0.5) Course ID: 015857
Population Growth
Calculates linear, exponential, and logarithmic growth. Pre-requisite: MAT 1462. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

MAT 1464(1) Course ID: 015858
Contemporary Math Special Topics
Analyzes concepts and perform calculations in at least two of the special topics in contemporary college mathematics: Apportionment, probability and statistics, geometry, logic, graph, theory, number theory, game theory and set theory. Pre-requisite: MAT 1463. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

MAT 1501(0.8) Course ID: 006146
Linear and Quadratic Functions
Develops manipulative skills and concepts of linear and quadratic functions required for further study in mathematics. Emphasizes systems of equations. Students may not receive credit for both MAT 150 and any other College Algebra or Precalculus course. Credit not available on the basis of a special exam. Pre-requisite: MAT 1510. Lecture: 0.8 credit (12 contact hours).
Components: Lecture

MAT 1502(0.8) Course ID: 006147
Polynomial, Rational and Piecewise Functions
Develops manipulative skills and concepts of polynomial, rational and piecewise functions required for further study in mathematics. Students may not receive credit for both MAT 150 and any other College Algebra or Precalculus course. Credit not available on the basis of a special exam. Pre-requisite: MAT 1510. Lecture: 0.8 credit (12 contact hours).
Components: Lecture

MAT 1503(0.9) Course ID: 006148
Exponential and Logarithmic Functions (Exponential & Logarithmic Fnc)
Develops manipulative skills and concepts of exponential and logarithmic functions required for further study in mathematics. Students may not receive credit for both MAT 150 and any other College Algebra or Precalculus course. Credit not available on the basis of a special exam. Pre-requisite: MAT 1510. Lecture: 0.9 credit (14 contact hours).
Components: Lecture

MAT 1701(0.6) Course ID: 016157
Limits
Approximate limits graphically and numerically; evaluate limits analytically; list the conditions for the continuity of a function at a point; determine if a function is continuous or discontinuous at a point; determine the intervals of continuity of a function; and evaluate infinite limits and limits at infinity. Pre-requisite: Successful completion of MAT 150 or Math ACT 27 or above. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

MAT 1702(0.8) Course ID: 016158
Differentiation
Define the derivative of a function; evaluate the derivative of a function using the definition; evaluate the derivative of a function using differentiation rules for algebraic functions and the product, quotient, and chain rules; use the derivative of a function to find the equation of a tangent line; perform implicit differentiation; define the differential; and use differentials to approximate function values. Pre-requisite: MAT 1701. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

MAT 1703(0.6) Course ID: 016159
Differentiation Applications
Determine critical points; determine intervals on which a function is increasing or decreasing; identify relative extrema; identify inflection points and intervals on which a function is concave up or concave down. Solve application problems involving relative rates and optimization for biological, social, or physical sciences and business. Determine whether a function is differentiable at a point. Find the derivative of functions including polynomial, rational, root, exponential, and logarithmic functions. Pre-requisites: MAT 1702. Lecture: 0.6 credits. (9 contact hours).
Components: Lecture

MAT 1704(0.5) Course ID: 016160
Integration
Discuss the fundamental theorem of calculus. Find the average value of a function. Find indefinite and definite integrals of a function using integration rules for algebraic functions. Find definite and indefinite integrals using substitution. Pre-requisite: MAT 1703. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

MAT 1705(0.5) Course ID: 016161
Applications of Integration
Use definite integrals of find the area under a curve and between two curves. Find the integral of functions using polynomial, rational, root, exponential, and logarithmic functions. Solve application problems using integrals for biological, social, and physical sciences or business. Pre-requisite: MAT 1704. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

MAI Medical Assisting

MAI 105(3) Course ID: 004342
Introduction to Medical Assisting
Introduces roles, responsibilities and functions of the medical assistant including personal and professional awareness, communication, interpersonal relationships, psychological concepts, ethics and legalities. Lecture: 3 credits (45 contact hours). Pre-requisite: Acceptance into the Medical Assisting program or consent of Medical Assisting Coordinator/Director.
Components: Lecture
Attributes: Technical

MAI 120(3) Course ID: 004090
Medical Assisting Laboratory Techniques I
Introduces theory and practical application in the physician's office laboratory including anatomy and physiology, patient preparation, specimen collection and transport, processing and testing, blood collection and prevention of disease transmission. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (30 contact hours). Pre-requisite: Acceptance into the Medical Assisting Program or consent of Medical Assisting Coordinator/Director.
Components: Laboratory, Lecture
Attributes: Technical

MAI 140(4) Course ID: 004091
Medical Assisting Clinical Procedures I
Introduces clinical skills and techniques used in the physician's office for patient examination, diagnosis and treatment. Introduces concepts related to electronic health records (EHR). Presents principles and practical applications related to medical asepsis, infection control, vital signs, routine and specialty patient examinations, diagnostic testing, and treatments with an emphasis on OSHA regulations. Pre-requisite: Acceptance into the Medical Assisting Program or Consent of Medical Assisting Coordinator/Director. Lecture/Lab: 4.0 credits (90 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
MAI 150(3) Course ID: 004092
Medical Assisting Administrative Procedures I
Provides knowledge of the duties required in an office with emphasis placed on a medical office environment. Course content includes communication with patients and co-workers, completion of medical office forms, telephone techniques, filing office correspondence, mail processing, appointment scheduling, processing medical records, and an introduction to medical office computer software. Lecture: 3 credits (45 contact hours). Pre-requisite: Acceptance into the Medical Assisting program or consent of Medical Assisting Coordinator/Director.
Components: Lecture
Attributes: Technical

MAI 170(2) Course ID: 004093
Department Consent Required
Dosage Calculations
Provides a review of basic mathematical skills related to dosage calculations, a thorough knowledge of the systems of measurement and conversion, and application skills to perform dosage calculations. Lecture: 2 credits (30 contact hours). Pre-requisite: Consent of Medical Assisting Coordinator/Director.
Components: Lecture
Attributes: Technical

MAI 200(3) Course ID: 004094
Pathophysiology for the Medical Assistant
Provides instruction related to common acquired diseases, congenital conditions, injuries, illnesses, and trauma situations as related to the major body systems. Pre-requisite: (BIO 135 or BIO 137 and BIO 139) and (CLA 131 or AHS 115 or AHS 120 or CLA 131 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 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MAI 220(3) Course ID: 004095
Medical Assisting Laboratory Techniques II
Relates to laboratory procedures waived complexity testing performed in the physician's office laboratory. Stresses CLIA and OSHA regulations. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (30 contact hours). Pre-requisite: MAI 120 with a grade of "C" or greater.
Components: Laboratory
Attributes: Technical

MAI 230(3) Course ID: 004096
Department Consent Required
Medical Insurance
Introduces fundamentals of insurance processing and coding for the medical office, with focus on proper procedures for accurate coding systems using the ICD, CPT and HCPCS coding system. Lecture: 3 credits (45 contact hours). Pre-requisite: Consent of Program Coordinator/Director.
Components: Lecture
Attributes: Technical

MAI 240(4) Course ID: 004097
Medical Assisting Clinical Procedures II
Continues instruction and application techniques for specialty examination, diagnostic testing and treatment modalities. Emphasizes fundamentals and practical applications of minor office surgical procedures. Lecture: 3 credits (45 contact hours); Lab: 1 credit (45 contact hours). Pre-requisite: MAI 140 with a grade of "C" or greater OR Consent of Program Coordinator.
Components: Laboratory
Attributes: Technical

MAI 250(3) Course ID: 004098
Medical Assisting Administrative Procedures II
Focuses on computerizing and completing financial and insurance claim forms. Includes banking concepts, accounting systems frequently used in the medical office, payment procedures, insurance plans and claims, paper and electronic billing methods, and professional fees. Pre-requisite: MAI 150 with a grade of "C" or greater OR Consent of Program Coordinator. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

MAI 270(3) Course ID: 004100
Pharmacology for the Medical Assistant
Examines pharmacology with concentration on prescriptions, drug nomenclature, classification of drugs, patient education, medication preparation and administration. Pre-requisite: MAI 170 and (BIO 135 or BIO 137 and BIO 139) and (AHS 115 or AHS 120 or CLA 131 or MIT 103) with a grade of "C" or better) or Consent of Medical Assisting Program Coordinator/Director. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

MAI 281(1) Course ID: 004101
Medical Assisting Practicum
Provides introductory practical experience (unpaid) through observation and work assignments in a healthcare setting. Clinical: 1 credit (30 contact hours). Pre-requisite: Consent of Medical Assisting Program Coordinator/Director.
Components: Clinical
Attributes: Technical

MAI 282(3) Course ID: 004102
Medical Assisting Externship
Allows the student to apply knowledge, perform administrative and clinical procedures, and develop professional attitudes for interacting with other professionals and consumers in the health care field by means of externship assignments (unpaid). Pre-requisite: MAI 281 and Consent of Medical Assisting Program Coordinator/Director. Clinical: 3.0 credits (180 contact hours).
Components: Clinical
Attributes: Technical

MAI 284(2 - 3) Course ID: 015672
Medical Assisting Externship
Allows the student to apply knowledge, perform administrative and clinical procedures, and develop professional attitudes for interacting with other professionals and consumers in the health care field by means of externship assignments (unpaid). Pre-requisite: MAI 281 and Consent of Medical Assisting Program Coordinator/Director. Practicum: 2.0 - 3.0 credits (120-180 contact hours).
Components: Practicum
Attributes: Technical

MAI 299(1 - 4) Course ID: 004341
Instructor Consent Required
Selected Topics: Medical Assisting: (Topic)
Various medical assisting topics, issues and trends will be addressed. Topics may vary from semester to semester at the discretion of the instructors; course may be repeated with different topics to a maximum of six credit hours. Lecture: varies; Laboratory: varies. Pre-requisite: Consent of instructor.
Components: Laboratory
Attributes: Technical

MBS 100(2) Course ID: 001673
Introduction to the Health Care Field
This course is designed to acquaint/teach the student with legal issues and ethical concerns as they apply to the patients' medical records. *Student must maintain a 2.0 GPA in A-P to continue in the program. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical

MBS 110(6) Course ID: 001676
Medical Insurance and Claims Processing
Provides an in-depth knowledge of the various insurance programs, including rules, regulations and guidelines, and follow-up for Medicare, Medicaid, Commercial Insurance, and managed care (HMO), and complete insurance forms manually for reimbursement. Lecture: 6 credits (90 contact hours). Pre-requisite: (AHS 109 or BIO 130 or 135) or (BIO 137 and BIO 139) and (AHS 115 or CLA 131 or OST 103) and Computer Literacy and MBS 100) with a grade of C or better) or consent. Corequisite: MBS 120.
Components: Lecture
Attributes: Technical

MBS 120(8) Course ID: 001678
Coding for Reimbursement
Prepares the student to code for optimum reimbursement using the ICD, CPT, and HCPCS codes for patient diagnoses and procedures. Prerequisite: (AHS 109 or BIO 130 or 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. Corequisite: MBS 110.
Components: Lecture
Attributes: Technical

MBS 198(1 - 8) Course ID: 001680
Internship
Applies practical knowledge to the outpatient healthcare setting. The student will be assigned a healthcare preceptor at the affiliate site. *This course may be taken for 1-8 credits. Pre-requisites: (MBS 110 and MBS 120) or Consent
Components: Practicum
Attributes: Technical

ME 205(3) Course ID: 004291
Introduction to Computer Graphics
Combines freehand sketching techniques, both orthographic and pictorial, and the use of a solid modeling program to describe and define mechanical objects using current industrial standards. An introduction to basic dimensioning and tolerancing techniques is included. Lecture: 2 hours, Laboratory: 4 hours per week.
Components: Laboratory, Lecture
Attributes: Technical

ME 220(3) Course ID: 000837
Engineering Thermodynamics I
Fundamental principles of thermodynamics. Prerequisite: PHY 231. Pre-requisite or concurrent: MA 214. Lecture: 3 credits (45 contact hours)
Components: Lecture
Attributes: Technical

MES 110(4) Course ID: 005485
Mechatronics Systems Electrical Components
Introduces the systems approach to the operation of electrical components and the relationship to voltage, current, resistance, and power in industrial systems. Provides an overview of alternating and direct current fundamentals. Pre-requisite: (COMPASS Scores of Pre-Alg-31; Reading-70; English-39) or (ACT Score of 19 in Math and Reading and 18 in English). Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

MES 120(4) Course ID: 005486
Mechatronics Systems Mechanical Components
Introduces the systems approach to the operation of mechanical components and the relationship of their application in industrial systems. Provides an overview of rotating machinery fundamentals. Pre-requisite: (COMPASS Scores of Pre-Alg-31; Reading-70; English-39) or (ACT Score of 19 in Math and Reading and 18 in English). Lecture: 3.0 credits (45 contact hours). Lab: 0.5 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

MES 130(4) Course ID: 005487
Mechatronics Systems Hydraulic / Pneumatic Components
Introduces the systems approach to the operation of hydraulic/pneumatic components and the relationship of their application in industrial systems. Provides an overview of digital fundamentals. Pre-requisite: (COMPASS Scores of Pre-Alg-31; Reading-70; English-39) or (ACT Score of 19 in Math and Reading and 18 in English). Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
MES 150(4) Course ID: 005488
Mechatronics Systems Programmable Logic Controllers
Introduces the systems approach to the operation of Programmable Logic Control components and the relationship of their application in industrial systems. Provides an overview of Programming fundamentals. Pre-requisite: (COMPASS Scores of Pre-Alg-31; Reading-70; English-39) or (ACT Score of 19 in Math and Reading and 18 in English) Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

MFG Manufacturing

MFG 102(4-6) Course ID: 015604
Certified Production Technician
Provides industry-led training, assessment, and certification system focused on the industry-wide core skills and knowledge needed by the nation’s production workers. Includes the nationwide Manufacturing Skill Standards Council (MSSC) System, based upon federally-endorsed standards. Offers both entry-level and incumbent workers the opportunity to demonstrate that they have mastered the skills increasingly needed in the high-growth, technology-intensive jobs of the 21st century. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 - 3.0 credits (30 - 90 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

MFG 125(3) Course ID: 006669
Fundamentals of Mechatronics A
Introduces the student to the basics of Mechatronic systems and the operation of electrical, mechanical, pneumatic/hydraulic, and Programmable Logic Control components in an advanced manufacturing system. Presents a detailed explanation of the relationships of voltage, current, resistance, power, the operation of mechanical, pneumatic/hydraulic components and programming fundamentals in industrial systems. Includes an overview of the fundamentals of alternating and direct current, rotating machinery, digital devices, and programming. (Credit may not be earned for this course if the student has earned credit for MFG 135). Pre-requisite: ENGT 110 and at least five other hours of approved technical electives (see Manufacturing Engineering Technology technical elective list) or consent of instructor. Lecture/Lab: 3 credits (60 contact hours).
Components: Lecture
Attributes: Technical

MFG 130(3) Course ID: 006670
Fundamentals of Mechatronics B
Combines previously learned basic operational and analytical skills as related to a Mechatronic/Advanced Manufacturing system. Applies concepts to a complete advanced manufacturing system wherein various subsystems are collectively used to build a more complex manufacturing system. Teaches the students to troubleshoot a multitude of problems involved in electrical, mechanical, and hydraulic/pneumatic systems. (Credit may not be earned for this course if the student has earned credit for MFG 135). Pre-requisite: MFG 125 Fundamentals of Mechatronics A or consent of instructor. Lecture/Lab: 3 credits (60 contact hours).
Components: Lecture
Attributes: Technical

MFG 135(6) Course ID: 006671
Fundamentals of Mechatronics
Introduces the student to the basics of Mechatronic systems and the operation of electrical, mechanical, pneumatic/hydraulic, and Programmable Logic Control components in an advanced manufacturing system. Combines basic operational and analytical skills with critical thinking and applied troubleshooting. Teaches the students to troubleshoot a multitude of problems involved in typical electrical, mechanical, and hydraulic/pneumatic systems. (Credit may not be earned for this course if the student has earned credit for MFG 125 or MFG 130). Pre-requisite: ENGT 110 and at least five other hours of approved technical electives (see Manufacturing Engineering Technology technical elective list) or consent of instructor. Lecture/ Lab: 6 credit hours (120 contact hours).
Components: Lecture
Attributes: Technical

MFG 175(2) Course ID: 006672
Lean Operations
Introduces students to the principles and practices of lean operations. Employs a lean simulation and examples from Toyota and other lean practitioners to introduce students to lean practices. Discusses Total Productive Maintenance. Lecture/ Lab 2 credit hours (30 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

MGT Management

MGT 101(3) Course ID: 004892
Quality Management Principles
Students are introduced to fundamental concepts, principles, and practices used to improve quality in organizations. The need for organizational change is reviewed and paradigms of quality are introduced. An overview of areas of change, methods of quality planning and methods for implementing quality policies are provided. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MGT 120(3) Course ID: 004897
Personal Finance
Information needed to make intelligent choices and take effective action in the management of personal resources is provided. Topics include financial planning, buying, borrowing, saving, budgeting, investing, insurance, and taxes. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MGT 160(3) Course ID: 004899
Introduction to Business
Introduces students to the basics of Mechatronic systems and the operation of electrical, mechanical, pneumatic/hydraulic, and Programmable Logic Control components in an advanced manufacturing system. Combines basic operational and analytical skills with critical thinking and applied troubleshooting. Teaches the students to troubleshoot a multitude of problems involved in typical electrical, mechanical, and hydraulic/pneumatic systems. (Credit may not be earned for this course if the student has earned credit for MFG 125 or MFG 130). Pre-requisite: ENGT 110 and at least five other hours of approved technical electives (see Manufacturing Engineering Technology technical elective list) or consent of instructor. Lecture/ Lab: 6 credit hours (120 contact hours).
Components: Lecture
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: MGT 160 or B&E 100, or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Course Equivalents: BAS 200
Attributes: Technical

MGT 240(3) Course ID: 005460
Business Ethics and Self Management
Emphasizes the need for managers to be self-directed to make ethical decisions. Explores moral principles, community standards and the ethics of decision making at personal and professional levels. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MGT 256(3) Course ID: 004901
Operations Management
Concepts and methods for economical planning and control of activities required for transforming a set of inputs into specified goods or services are introduced. Emphasis is given to forecasting, decision analysis, cost analysis, design of production systems, production/marketing relationships, operations planning and control, and the importance of global competitiveness. Pre-requisite: MGT 283 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MGT 258(3) Course ID: 008642
Project Management
Provides tools used in project management to accomplish the goals of society’s varied organizations. Provides insight into human behavior, knowledge of organizational issues, and skill with quantitative methods to allow successful project management. Pre-requisite: MGT 283. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MGT 267(3) Course ID: 004913
Introduction to Business Law
The student is introduced to the state and federal court systems, tort and criminal law, law of contracts, partnerships, 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 employee relations including collective bargaining, contract administration, and safety and health programs are introduced. Techniques for systematic human resource planning and development of policies consistent with government regulations are emphasized. Pre-requisite: MGT 283 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MGT 283(3) Course ID: 004916
Principles of Management
The functional framework of planning, organizing, leading, and controlling is utilized to introduce the management process. The interdisciplinary nature of management theory is introduced also, with the inclusion of relevant aspects of human behavior and rational decision making. Pre-requisite: BA 100 or MGT 160, B&E 100 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

Course Descriptions
MIT 1032(1) Course ID: 016394
Intermediate Body Systems
Introduces medical terms related to the blood, lymph, cardiovascular, respiratory, digestive and urinary systems as well as skin. Pre-requisite: MIT 1031. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

MIT 1033(1) Course ID: 016395
Diagnosics and Pharmacology
Introduces the nervous, endocrine, reproductive systems as well as eyes and ears. Introduces medical terms related to pharmacology and diagnostic and imaging procedures. Pre-requisite: MIT 1032. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

MIT 1041(1) Course ID: 016396
Intro to Medical Insurance
Introduces the basics of medical insurance including: insurance terminology and government programs. Pre-requisite OR Co-requisite: MIT 103 or MIT 1033 or AHS 115 or CLA 131. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

MIT 1042(1) Course ID: 016397
Medical Coding Overview
Introduces various coding systems. Pre-requisite: MIT 1041. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

MIT 1043(1) Course ID: 016398
Intro to Medical Forms
Introduces general insurance procedures and forms. Pre-requisite: MIT 1042. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

MIT 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 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 diagnosis codes. Pre-requisite: 2282 or consent of instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

MIT 2301(1) Course ID: 016406
Intro to Medical Info Mgmt
Identify rules and regulations of medical filing systems and procedures. Pre-requisite: Digital Literacy. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

MIT 2302(1) Course ID: 016407
Applied Medical Info Mgmt
Apply rules and regulations of medical filing systems and procedures. Emphasizes management of both hard copy and magnetic media using 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 Mgnt/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

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 after-sale service. Students demonstrate effective sales techniques through simulation and role playing. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Technical

MKT 202(3) Course ID: 004915
Principles of Marketing
The marketing function is introduced and applied to various types of business organizations with attention to the marketing concept. Topics include the marketing mix of product, price, promotion, and distribution decisions; international marketing; and social responsibility. Pre-requisite: MGT 160 or B&IE 100, or consent of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Technical

MKT 291(3) Course ID: 004920
Retail Management
Retail structure, merchandising, promotions, store control, and decision making are examined in this course. Fundamental principles of store organization, consumer behavior and customer service are addressed. Retailing trends, opportunities, and problems are included also. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Technical

MLT 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: BE 291/MLT 291. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (30 contact hours).

Components: Laboratory, Lecture Attributes: Technical

MLT 101(3) Course ID: 004073
Introduction to the Clinical Laboratory
Includes an orientation to the laboratory and management structure, professional organizations, professional ethics, communication, and record keeping. Covers medical terminology and abbreviations, quality assurance procedures, laboratory safety rules and procedures, specimen processing, laboratory automation, and basic immunology. Introduces the student to the various laboratory departments. Pre-requisite: Admission into the MLT program or permission of the MLT Program Director or MLT Clinical Coordinator. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (45 contact hours).

Components: Laboratory, Lecture Attributes: Technical

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; permission of the MLT program director/coordinator. Pre-requisite Or Co-requisite: MLT 101. If taken as a pre-requisite, a minimum grade of "C". Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture 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 MLT program director/coordinator. Lecture: 1.5 credits (22.5 contact hours). Lab: 0.5 credits (15 contact hours).

Components: Laboratory, Lecture Attributes: Technical

MLT 119(3) Course ID: 004179
Applied Laboratory
Prepares the MLT student for clinical rotation into the major areas of the laboratory. Includes practical application in Hematology, Clinical Microbiology, Immunohematology, Urinalysis, Serology, and Clinical Chemistry. Pre-requisite: MLT 101 with a grade of "C" or greater; admission into the MLT program or permission of the MLT program director/ coordinator. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credit (90 contact hours).

Components: Laboratory, Lecture Attributes: Course Also Offered in Modules, Technical
MLT 279(4 - 5)  Course ID: 004254
Practicum II
Develops career entry level performance skills and professional attitude in the student in assigned areas of the clinical laboratory. Provides opportunities for more responsibility and independence with previously learned procedures. Enhances the student’s transition to the world of work by providing work experiences in a clinical setting. Utilizes and depends upon external institutions to insure adequate clinical education and training. Each clinical laboratory affiliate has designated personnel to assist the student in assigned areas of the clinical laboratory. Provides a prescribed schedule of rotations in various departments of the laboratory for each individual student by the MLT program director. Pre-requisite: MLT 101 with a grade of “C” or greater; OR admission into MLT program; OR permission by MLT program director/coordinator.
Components: Practicum
Attributes: Course Also Offered in Modules, Technical

MLT 1191(1.5)  Course ID: 005338
Applied Laboratory Part 1
Prepares the MLT student for clinical rotation into the major areas of the laboratory. Includes practical application in Hematology, Clinical Microbiology, and Urinalysis. Pre-requisite: MLT 101 with a grade of “C” or greater and admission into the program. Lecture: 0.5 credit (7.5 contact hours). Laboratory: 1.0 credit (45 contact hours).
Components: Laboratory, Lecture

MLT 1192(1.5)  Course ID: 005339
Applied Laboratory Part 2
Prepares the MLT student for clinical rotation into the major areas of the laboratory. Includes practical application in Clinical Microbiology, Immunohematology, Serology, and Clinical Chemistry. Pre-requisite: MLT 1191 with a grade of “C” or greater. Lecture: 0.5 credit (7.5 contact hours). Lab: 1.0 credit (45 contact hours).
Components: Laboratory, Lecture

MLT 2781(2 - 2.5)  Course ID: 005340
Practicum I Part 1
Develops performance skills and professional attitude in the student in assigned areas of the clinical laboratory. Utilizes and depends upon external institutions to insure adequate clinical education and training. Each clinical laboratory affiliate has designated personnel to assist the student in all assigned areas of the clinical laboratory. Provides a prescribed schedule of rotations in various departments of the laboratory for each individual student by the MLT program director. This practicum is designed to develop skills with strong supervisory instruction in all assigned departments. Pre-requisite: MLT 101 with a grade of “C” or greater and admission into the program. Practicum: 2 - 2.5 credits (120-150 contact hours).
Components: Practicum

MLT 2782(2 - 2.5)  Course ID: 005341
Practicum I Part 2
Develops performance skills and professional attitude in the student in assigned areas of the clinical laboratory. Utilizes and depends upon external institutions to insure adequate clinical education and training. Each clinical laboratory affiliate has designated personnel to assist the student in all assigned areas of the clinical laboratory. Provides a prescribed schedule of rotations in various departments of the laboratory for each individual student by the MLT program director. This practicum is designed to develop skills with strong supervisory instruction in all assigned departments. Pre-requisite: MLT 2781 with a grade of “C” or greater. Practicum: 2 - 2.5 credits (120-150 contact hours).
Components: Practicum

MLT 2792(2 - 2.5)  Course ID: 005343
Practicum II Part 2
Develops career entry level performance skills and professional attitude in the student in assigned areas of the clinical laboratory. Provides an opportunity for more responsibility and independence with previously learned procedures. Enhances the student’s transition to the world of work by providing work experiences in a clinical setting. Utilizes and depends upon external institutions to insure adequate clinical education and training. Each clinical laboratory affiliate has designated personnel to assist the student in assigned areas of the clinical laboratory. Provides a prescribed schedule of rotations in various departments of the laboratory for each individual student by the MLT program director. Pre-requisite: MLT 101 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 1396r and 907 KAR 1-450. Lecture/ Lab: 3 credits (75 contact hours). (45:1 ratio).
Components: Lecture
Course Equivalences: NAA 100
Attributes: Technical

MNG 102(3)  Course ID: 007356
Introduction to Mine Engineering and Mining Technology
Provides orientation to the mining engineering and mining technology professions. Includes introduction to key mining engineering activities and functions, mining methods and equipment, and health and safety subsystems. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

MNG 123(4)  Course ID: 000576
Mining Electricity I
Qualifies students to take the Mine Electrical Certification Exam administered by Kentucky Office of Mine Safety and Licensing. Includes topics of basic electricity, direct current circuits, impedance, reactance, power, electrical energy, permissible, underground and surface law, solid-state, and national instruments and applications. Co-requisite: MNG 125. Lecture: 4.0 credit hours (60 contact hours).
Components: Lecture
Attributes: Technical

MNG 125(1)  Course ID: 005286
Mining Electricity I Lab
Encompasses an elementary lab for mining technology students. Includes construction of circuits using electrical-measuring instruments in the analysis of the circuits with focus on electrical safety. Emphasizes mining electrical equipment circuits, permissibility and maintenance. Co-requisite: MNG 123. Laboratory: 1.0 credits (30 contact hours).
Components: Laboratory
Attributes: Technical

MNG 150(3)  Course ID: 000587
Mining Laws
Provides the theory, intent, construction and application of state and federal regulations pertaining to underground and surface coal mining. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MNG 160(3)  Course ID: 006646
Elements of Underground Mining
Introduces underground mining methods, operations, and procedures. Includes topics of miners’ rights, work environments, health and safety standards, roof control, mine ventilation, transportation, communication, compressed gas cylinders, explosives, mine gases and instruments, electrical hazards, accident prevention, and emergency procedures. Co-requisite: MNG 161. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Pilot Course, Technical

MNG 161(1)  Course ID: 006647
Elements of Underground Mining Lab
Applies the principles and policies of mining methods, operations, and procedures in a controlled laboratory environment. Focuses on the skills associated with the information taught in the paired underground mining lecture course. Co-requisite: MNG 165. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Pilot Course, Technical

MNG 170(2)  Course ID: 006648
Elements of Surface Mining
Introduces study of surface mining methods, operations, and procedures. Includes topics of miners’ rights, work environments, ground control, health and safety standards, transportation, communication, compressed gas cylinders, explosives, mine gases and instruments, electrical hazards, accident prevention, and emergency procedures. Co-requisite: MNG 171. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Pilot Course, Technical

MNG 171(1)  Course ID: 006649
Elements of Surface Mining Lab
Applies the principles and policies of mining methods, operations, and procedures in a controlled laboratory environment. Focuses on the skills associated with the information taught in the paired lecture course for surface mining. Co-requisite: MNG 170. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Pilot Course, Technical

MNG 180(3)  Course ID: 006789
Environmental Issues in Mining
Introduces topic of how underground and surface mining operations impact the environment in a multitude of ways. Includes basic information related to geological formations in mining and structure of coal material. Relationships and methods to mitigate negative effects of mining. Discusses methods to repair damage to environment. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MNG 185(3)  Course ID: 007371
Mining Permissibility
Covers the requirements of federal and state law of mining permissibility with a focus on proper methods of checking and maintaining underground permissible equipment in a permissible condition. Includes plane flange joints, step flange joints, slip joints, threaded joints, restraining of cables, power centers, fire extinguishers, cables, and other areas of permissibility. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical
MOR 100(6) Course ID: 001773
Medical Office Limited Radiography
Provides knowledge and lab experience necessary to meet requirements for Limited Medical Radiography licensure. Consists of patient care and management, radiographic procedures, image production and evaluation, equipment operation and maintenance. Pre-requisite: MOR 100 and AHS 115 with a grade of “C” or better. Co-requisite: MOR 119 Advanced Medical Office Radiology Clinical. Lecture: 4.0 credits (60 contact hours). Lab: 2.0 credit (60 contact hours).
Components: Lecture Attributes: Technical

MOR 117(6) Course ID: 007111
Advanced Medical Office Radiography
Provides knowledge and lab experience necessary to meet requirements for Limited Medical Radiography licensure. Consists of patient care and management, radiographic procedures, image production and evaluation, equipment operation and maintenance. Pre-requisite: MOR 100 and MOR 115 with a grade of “C” or better. Co-requisite: MOR 119 Advanced Medical Office Radiology Clinical. Lecture: 4.0 credits (60 contact hours). Lab: 2.0 credit (60 contact hours).
Components: Laboratory, Lecture Attributes: Technical

MOR 119(3) Course ID: 007112
Advanced Medical Office Limited Radiography Clinical
Apply the principles and procedures learned in MOR 100 and MOR 115 to afford the student the opportunity to observe, assist, and perform diagnostic radiographic examinations. Mandated by the State Radiation Control Board, the student shall accrue a total of 360 contact hours and perform the minimum of (50) radiographic examinations in each of the following areas: Chest, Extremities, and Musculoskeletal. Pre-requisite: MOR 100 and MOR 115 with a grade of “C” or better. Co-requisite: MOR 117 Advanced Medical Office Radiology Clinical. 3.0 credits (180 contact hours).
Components: Clinical Attributes: Technical

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, safety practices, radio telephone regulations, plus an introduction to diesel operation and maintenance. Pre-requisite: MRN 204. Lecture/Lab: 1.0 - 4.0 credits (contact hours 15 - 120).
Components: Lecture Attributes: Technical

MRN 101(3) Course ID: 006706
Anatomy of a Towboat
Introduces components found on modern towboats with emphasis on an overview of all areas of the vessel from the wheelhouse to the engine room to the external components. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules, Technical

MRN 102(3) Course ID: 006707
Basic Marine Safety
Provides an overview of risk-based decision making skills for assessing and managing marine hazards to prevent marine accidents or casualty. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules, Technical

MRN 103(3) Course ID: 007412
Applied Marine Weather
Covers fundamental maritime weather concepts to plan safe and efficient voyages. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules, Technical

MRN 104(3) Course ID: 007413
Marine Crew Wellness
Examines how nutrition, exercise, and disease affect the crewmembers’ ability to maintain a U.S. Coast Guard license. Focuses on nutrition and exercise programs while working, and prevention of disease. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules, Technical

MRN 199(6) Course ID: 006708
Marine Co-Op Experience I
Gives students experience in a higher level position in the marine industry. Provides compensation on-the-job work experience under the supervision of a qualified affiliate of the industry. Pre-requisite: 360 hours of river industry experience. Co-requisite: Current employment with the company providing the co-op experience. Co-Op: 6 credits (450 contact hours).
Components: Co-Op Attributes: Technical

MRN 200(3) Course ID: 006709
Shipboard Deck Operations
Provides specifics of responsibilities, policies, training, safety and rigging procedures for towboat personnel. Pre-requisite: MRN 100. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

MRN 201(3) Course ID: 006710
Rules of the Road
Provides an in-depth analysis of the United States Coast Guard (USCG) Navigation Rules with an emphasis on the history and interpretation of the rules. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

MRN 202(5) Course ID: 006711
Piloting and Navigation
Identifies the effect of inland waterway prevailing conditions on vessels; provides instruction on locking procedures, radio telephone regulations, hydrology, and piloting skills. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

MRN 203(3) Course ID: 006712
Environmental Protection Rules
Provides analysis of environmental regulations governing the marine industry. Explores the environmental practices of vessels on the inland waterways systems and the governing agencies which establish industry regulations. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

MRN 204(5) Course ID: 006713
Marine Electrical Systems
Explores and applies the theory of electricity with an emphasis on power systems, circuits, safety procedures, and maintenance measures needed to maintain electrical systems aboard towing vessels. Lecture/Lab: 5.0 credits (105 contact hours).
Components: Lecture Attributes: Technical

MRN 205(3) Course ID: 006714
Marine Electrical Systems II
Explores the maintenance measures needed to maintain electrical systems aboard towing vessels on the inland river system. Pre-requisite: MRN 204. Lecture/Lab 3 credits (60 contact hours).
Components: Lecture Attributes: Technical

MRN 206(5) Course ID: 006715
Marine Diesel
Introduces the operation and components of a marine diesel engine with emphasis on diesel engine theory, safety precautions, internal and external components, and contributing operation systems. Lecture/Lab: 5.0 credits (105 contact hours).
Components: Lecture Attributes: Technical

MRN 207(3) Course ID: 006716
Marine Diesel II
Identifies the various systems involved in the operation of a marine diesel engine, including the application of the knowledge of diesel operation to maintenance and troubleshooting exercises. Pre-requisite: MRN 206. Lecture/Lab: 3 credits (60 contact hours).
Components: Lecture Attributes: Technical
Course Descriptions

**MRN 208(3) Course ID: 006717**

**Inland River Systems**
Explores the U.S. inland waterway system and its tributaries as they relate to the inland marine industry and the movement of cargos. Lecture: 3 credits (45 contact hours).

**Components: Lecture**

**Attributes: Technical**

**MRN 212(5) Course ID: 007414**

**Marine Fluid Systems**
Introduces basic arrangement of wheelhouse equipment and use. Pre-requisite: MRN 2102. Lecture: 1.0 credit (15 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 (60 contact hours).

**Components: Lecture**

**Attributes: Technical**

**MRN 299(6) Course ID: 006720**

**Marine Co-Op Experience II**
Provides basic seamanship expected of personnel working aboard an inland towing vessel. Pre-requisite: Instructor Consent. Lecture: 1.0 credit (15 contact hours).

**Components: Lecture**

**Attributes: Technical**

**MRN 1001(1) Course ID: 015787**

**Marine Terminology and Safety**
Provides fundamental terminology and safety concepts expected of personnel working aboard an inland towing vessel. Pre-requisite: Instructor Consent. Lecture: 1.0 credit (15 contact hours).

**Components: Lecture**

**MRN 1002(1) Course ID: 015788**

**Seamanship, Rigging, and Tows**
Provides basic seamanship expected of personnel working aboard an inland towing vessel. Pre-requisite: MRN 1001. Lecture: 1.0 credit (15 contact hours).

**Components: Laboratory**

**MRN 1011(1) Course ID: 015789**

**Basic Towboat Design**
Introduces components found on modern towboats with emphasis on towboat design and arrangement of equipment. Lecture: 1.0 credit (15 contact hours).

**Components: Lecture**

**MRN 1021(1) Course ID: 015791**

**Wheelhouse Equipment**
Introduces basic arrangement of wheelhouse equipment and use. Pre-requisite: MRN 1011. Lecture: 1.0 credit (15 contact hours).

**Components: Laboratory**

**MRN 1031(1) Course ID: 015792**

**Mechanical Support Systems**
Introduces the responsibilities of the engineering department and systems on board an inland towing vessel. Pre-requisite: MRN 1002. Lecture: 1.0 credit (15 contact hours).

**Components: Lecture**

**MRN 1021(1) Course ID: 015793**

**Marine Safety**
Introduces risk-based assessment and decision making factors for marine safety on an inland marine vessel. Lecture: 1.0 credit (15 contact hours).

**Components: Lecture**

**MRN 1022(2) Course ID: 015794**

**Marine Risk-Based Analysis**
Provides analyses for assessing and managing marine hazards to prevent marine accidents or casualty. Pre-requisite: MRN 1021. Lecture: 2.0 credits (30 contact hours).

**Components: Lecture**

**MRN 1031(1.5) Course ID: 015795**

**Maritime Weather**
Introduces marine weather as it relates to voyage. Lecture: 1.5 credits (22.5 contact hours).

**Components: Lecture**

**MRN 1032(1.5) Course ID: 015796**

**Weather Forecasting**
Introduces weather forecasting for safe and efficient voyage. Pre-requisite: MRN 1031. Lecture: 1.5 credits (22.5 contact hours).

**Components: Lecture**

**MRN 1041(1.5) Course ID: 015797**

**Crew Wellness**
Examines how nutrition, exercise, and disease affect the crewmember’s ability to maintain a U.S. Coast Guard license. Lecture: 1.5 credits (22.5 contact hours).

**Components: Lecture**

**MRN 1042(1.5) Course ID: 015798**

**Crew Lifestyle**
Focuses on nutrition and exercise programs while working and the prevention of disease. Pre-requisite: MRN 1041. Lecture: 1.5 credits (22.5 contact hours).

**Components: Lecture**

**MRN 2002(1) Course ID: 016380**

**Shipboard Deck Safety**

**Components: Lecture**

**MRN 2003(1) Course ID: 016381**

**Shipboard Deck Rigging**
Provides specifics on rigging procedures for towboat personnel. Pre-requisite: MRN 2002. Lecture: 1 credit (15 contact hours).

**Components: Lecture**

**MRN 2011(1.5) Course ID: 016382**

**History of Navigation Rules**
Provides an in-depth analysis of the history and effects developmental changes on navigation rules. Lecture: 1.5 credits (22.5 contact hours).

**Components: Lecture**

**MRN 2021(1) Course ID: 016384**

**River Conditions**
Identifies the effect of inland waterway prevailing conditions on vessels and hydrology. Lecture: 1 credit (15 contact hours).

**Components: Lecture**

**MRN 2023(1) Course ID: 016386**

**Piloting**
Provides instruction on locking procedures, radio telephone regulations and piloting skills. Pre-requisite: MRN 2022. Lecture: 1 credit (15 contact hours).

**Components: Lecture**

**MRN 2031(1) Course ID: 015799**

**Environmental Regulations I**
Provides analysis of environmental regulations governing the marine industry. Lecture: 1 credit (15 contact hours).

**Components: Lecture**

**MRN 2032(1) Course ID: 015800**

**Environmental Regulations II**
Provides analysis of Marine Pollution Convention and the National Pollution Discharge Elimination System. Pre-requisite: MRN 2031. Lecture: 1 credit (15 contact hours).

**Components: Lecture**

**MRN 2033(1) Course ID: 015801**

**Environmental Regulations III**
Introduces the environmental practices of vessels on the inland waterway systems and the governing agencies which establish industry regulations. Pre-requisite: MRN 2031 and MRN 2032. Lecture: 1.0 credit (15 contact hours).

**Components: Lecture**

**MRN 2041(1.66) Course ID: 016387**

**Intro to Marine Electrical**
Explores the theory of electricity with an emphasis on power systems, circuits, and safety measures to maintain electrical systems aboard towboat vessels. Lecture/Lab: 1.66 credits (35 contact hours).

**Components: Lecture**

**MRN 2042(1.67) Course ID: 016388**

**Marine Electrical Application**
Applies the theory of electricity with an emphasis on power systems, circuits, and safety procedures needed to maintain electrical systems aboard towboat vessels. Pre-requisite: MRN 2041. Lecture/Lab: 1.67 credits (35 contact hours).

**Components: Lecture**

**MRN 2043(1.67) Course ID: 016389**

**Marine Electrical Hardware**
Applies the theory of electricity with an emphasis on power systems, circuits, and safety procedures needed to maintain electrical systems aboard towboat vessels. Pre-requisite: MRN 2042. Lecture/Lab: 1.67 credits (35 contact hours).

**Components: Lecture**

**MRN 2081(1) Course ID: 016408**

**Intro to Inland River Systems**
Explores the U.S. inland waterway system and its tributaries for the lower Mississippi river region as they relate to the inland marine industry and the movement of cargos. Lecture: 1 credit (15 contact hours).

**Components: Lecture**

**MRN 2082(1) Course ID: 016410**

**Upper Mississippi River System**
Explores the U.S. inland waterway system and its tributaries for the upper Mississippi river region as they relate to the inland marine industry and the movement of cargos. Pre-requisite: MRN 2081. Lecture 1 credit (15 contact hours).

**Components: Lecture**

**MRN 2083(1) Course ID: 016411**

**Inland River Systems**
Explores the U.S. inland waterway system and its tributaries for the Ohio River region as they relate to the inland marine industry and the movement of cargos. Pre-requisite: MRN 2082. Lecture: 1 credit (15 contact hours).

**Components: Lecture**

**MRN 2121(1.66) Course ID: 016412**

**Intro to Marine Fluid Systems**
Incorporates practical experience in fluid power theory and schematic reading related to fluid power systems. Lecture: 1.66 credits (35 contact hours).

**Components: Lecture**

**MRN 2123(1.67) Course ID: 016414**

**Maintenance & Control Devices**
Incorporates practical experience in fluid power theory and basic calculations related to marine fluid systems. Pre-requisite: MRN 2122. Lecture: 1.67 credits (35 contact hours).

**Components: Lecture**

**MRN 2141(1) Course ID: 016415**

**Introduction to Marine HVAC**
Introduces the fundamentals of refrigeration. Lecture: 1 credit (15 contact hours).

**Components: Lecture**

**MRN 2142(1) Course ID: 016416**

**Marine HVAC Safety**
Introduces refrigeration tools, test equipment, and safety. Pre-requisite: MRN 2141. Lecture: 1 credit (15 contact hours).

**Components: Lecture**
MSG 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: Co-requisite: (CLA131 or OST103 or AHS115). Lecture: 4 credits (60 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 135(3) Course ID: 003991
Massage Techniques II
Provides extensive knowledge of the skeletal system and major joint articulations and an introduction to the musculoskeletal system of the human body from beginning terminology through the study of muscle tissue and neuromuscular fundamentals. Pre-requisite: MSG 100 and MSG 125. Lecture: 1.0 credit (15 contact); Lab: 2.0 credits (60 contact).
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: MSG 110. Lecture: 1.0 credit (15 contact hours). Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

MSG 210(3) Course ID: 005526
Advanced Clinical Massage II
Prepares students to integrate their massage practice into a clinical setting of rehabilitation of orthopedic conditions and injuries. Includes patient assessment, advanced orthopedics, and rehabilitative and preventative massage techniques. Pre-requisite: MSG 205. Lecture: 1.0 credit (15 contact hours). Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

MSG 215(2) Course ID: 003993
Massage Therapy Student Clinic
Applies principles and techniques by providing students with experience through a student massage clinic. Pre-requisite: MSG 210. Lab: 2.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

MSG 220(3) Course ID: 005522
Massage Therapy Pathology
Prepares students to recognize and know common pathologies that they may encounter as a massage therapist. Covers pathologies directly linked to the biological systems of the body. Co-requisite: MSG 215. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MSG 287(1 - 6) Course ID: 016249
Massage Therapy Practicum and Special Topics (Topics)
This course addresses various massage therapy topics, issues, and trends. It also allows students to practice techniques already acquired, and to demonstrate mastery of new ones covered in the topics portion. Topics may vary from semester to semester at the discretion of the instructors; course may be repeated with different topics to a maximum of six credit hours. Pre-requisite: Massage Therapy Certificate. Practicum: 1-6 credits (60-360 contact hours).
Components: Practicum
Attributes: Technical

MST Manufacturing Systems Technology

MST 150(9) Course ID: 007268
Multi-Skilled Systems Technician
Introduces the systems approach to the operation of electrical components and the relationship of voltage, current, resistance, and power in industrial systems. Provides an overview of alternating and direct current fundamentals. Introduces the systems approach to the operation of mechanical components and the relationship of their application in industrial systems. Provides an overview of rotating machinery fundamentals. Introduces the systems approach to the operation of hydraulic / pneumatic components and the relationship of these application in industrial systems. Provides an overview of digital fundamentals. Lecture/Lab: 9.0 credits (180 contact hours).
Components: Lecture
Attributes: Technical

MST 200(3) Course ID: 001778
Advanced Hydraulic Systems
The advanced hydraulic systems class will cover design, repair, and troubleshooting of hydraulic systems. 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 205(2) Course ID: 001781
Advanced Pneumatic Systems Lab
Component repair and system troubleshooting will be covered in this lab. Pre-requisite: FPX 100, FPX 101. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
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. Lecture: 3 credits (45 contact hours). Pre-requisite: (ENG 110 and FPX 100) or Consent of Instructor. Co-requisite: MST 207.
Components: Lecture
Attributes: Technical

MST 207(2) Course ID: 005260
Electrohydraulics Lab
Introduces electronic/electrical controls as it pertains to hydraulic valve control with the emphasis on automation, robotic and servo control. Laboratory: 2 credits (90 contact hours). Pre-requisite: (ENG 111 and ENG 113 and FPX 101) or Consent of Instructor. Co-requisite: MST 206.
Components: Laboratory
Attributes: Technical

MSY Masonry

MSY 105(3) Course ID: 001655
Introductory Masonry
Introduces various types of mortar and cement along with the use of basic masonry tools. Emphasizes different methods of spacing materials on a construction site, the 5-8-10 method, and of the transit level, brick spacing and modular rule focusing on laying straight and plumb brick to the line, bricking gables and building columns. Covers application techniques for setting up different types of masonry materials, marking off layout lines and erecting batter boards along with techniques employed in different types of weather and climates. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

MSY 113(3) Course ID: 001656
Intermediate Masonry
Builds on proficiency in competencies learned in MSY 105. Focuses on laying straight and plumb 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 199(3) Course ID: 001658
Instructor Consent Required
Cooperative Education I
Provides supervised on-the-job work experience related to the student's educational objectives. Students participating in the Co-op Education program receive compensation for their work. Pre-requisite: Consent of Instructor. Co-Op: 3.0 credits (90 contact hours).
Components: Co-Op
Attributes: Technical

MSY 205(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 113 with a grade of “C” or higher) or Consent of Instructor. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical
<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Attributes</th>
<th>Components</th>
<th>Pre-requisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSY 215(3)</td>
<td>Masonry Lab</td>
<td>Technical</td>
<td>Laboratory: 3.0 credits</td>
<td>Pre-requisite: MSY 105 and MSY 115 and MSY 205 with a grade of &quot;C&quot; or higher</td>
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<td>(90 contact hours)</td>
<td>or Consent of Instructor. Laboratory: 3.0 credits (90 contact hours)</td>
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<tr>
<td>MSY 225(3)</td>
<td>Brick Construction</td>
<td>Technical</td>
<td>Laboratory: 3.0 credits</td>
<td>Pre-requisite: MSY 205 with a grade of &quot;C&quot; or higher or Consent of Instructor.</td>
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<td>(90 contact hours)</td>
<td>Laboratory: 3.0 credits (90 contact hours).</td>
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<tr>
<td>MSY 235(3)</td>
<td>Special Techniques in Brick Construction</td>
<td>Technical</td>
<td>Laboratory: 3.0 credits</td>
<td>Pre-requisite: MSY 205 with a grade of &quot;C&quot; or higher or Consent of Instructor.</td>
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<td>(90 contact hours)</td>
<td>Laboratory: 3.0 credits (90 contact hours).</td>
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<tr>
<td>MSY 245(3)</td>
<td>Anchors and Reinforcement</td>
<td>Technical</td>
<td>Laboratory: 3.0 credits</td>
<td>Pre-requisite: MSY 105 with a grade of &quot;C&quot; or higher or Consent of Instructor.</td>
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<td>(90 contact hours)</td>
<td>Laboratory: 3.0 credits (90 contact hours).</td>
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<tr>
<td>MSY 251(3)</td>
<td>Concrete Finishing</td>
<td>Technical</td>
<td>Laboratory: 3.0 credits</td>
<td>Pre-requisite: MSY 205 with a grade of &quot;C&quot; or higher or Consent of Instructor.</td>
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<td>(90 contact hours)</td>
<td>Laboratory: 3.0 credits (90 contact hours).</td>
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<tr>
<td>MSY 253(3)</td>
<td>Masonry Floors and Steps</td>
<td>Technical</td>
<td>Laboratory: 3.0 credits</td>
<td>Pre-requisite: MSY 105 with a grade of &quot;C&quot; or higher or Consent of Instructor.</td>
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<td>(90 contact hours)</td>
<td>Laboratory: 3.0 credits (90 contact hours).</td>
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<tr>
<td>MSY 255(3)</td>
<td>Glass Blocks and Tile</td>
<td>Technical</td>
<td>Laboratory: 3.0 credits</td>
<td>Pre-requisite: MSY 105 with a grade of &quot;C&quot; or higher or Consent of Instructor.</td>
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<td>(90 contact hours)</td>
<td>Laboratory: 3.0 credits (90 contact hours).</td>
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<tr>
<td>MSY 275(3)</td>
<td>Fireplace Construction</td>
<td>Technical</td>
<td>Laboratory: 3.0 credits</td>
<td>Pre-requisite: MSY 205 with a grade of &quot;C&quot; or higher or Consent of Instructor.</td>
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<td>Laboratory: 3.0 credits (90 contact hours).</td>
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<tr>
<td>MSY 298(3)</td>
<td>Course ID: 001670 Masonry Applications</td>
<td>Technical</td>
<td>Laboratory: 3.0 credits</td>
<td>Pre-requisite: Consent of Instructor.</td>
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<td>Laboratory: 3.0 credits (90 contact hours).</td>
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<tr>
<td>MSY 298(3)</td>
<td>Course ID: 001671 Instructor Consent Required Pracitcum II</td>
<td>Technical</td>
<td>Laboratory: 3.0 credits</td>
<td>Pre-requisite: Consent of Instructor.</td>
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<td>Laboratory: 3.0 credits (90 contact hours).</td>
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<tr>
<td>MSY 298(3)</td>
<td>Course ID: 001672 Instructor Consent Required Cooperative Education II</td>
<td>Technical</td>
<td>Laboratory: 3.0 credits</td>
<td>Pre-requisite: Consent of Instructor.</td>
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<td>(90 contact hours)</td>
<td>Laboratory: 3.0 credits (90 contact hours).</td>
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<tr>
<td>MTT 216(0)</td>
<td>Course ID: 005456 Machining Techniques for Manufacturing</td>
<td>Technical</td>
<td>Laboratory: 3.0 credits</td>
<td>Pre-requisite: MSY 105 with a grade of &quot;C&quot; or higher or Consent of Instructor.</td>
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<td>Laboratory: 3.0 credits (90 contact hours).</td>
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<tr>
<td>MU 101(3)</td>
<td>Course ID: 000910 Folk and Traditional Music of the Western Continents</td>
<td>Technical</td>
<td>Laboratory: 3.0 credits</td>
<td>Pre-requisite: MSY 105 with a grade of &quot;C&quot; or higher or Consent of Instructor.</td>
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<td>Laboratory: 3.0 credits (90 contact hours).</td>
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<tr>
<td>MUC 175(1)</td>
<td>Course ID: 002238 Jazz Ensemble</td>
<td>Technical</td>
<td>Laboratory: 3.0 credits</td>
<td>Pre-requisite: MSY 105 with a grade of &quot;C&quot; or higher or Consent of Instructor.</td>
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<td>Laboratory: 3.0 credits (90 contact hours).</td>
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<td>MUC 190(1)</td>
<td>Course ID: 005593 Marching Band</td>
<td>Technical</td>
<td>Laboratory: 3.0 credits</td>
<td>Pre-requisite: Consent of instructor.</td>
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<td>(90 contact hours)</td>
<td>Laboratory: 3.0 credits (90 contact hours).</td>
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<tr>
<td>MUP 101(1 - 3)</td>
<td>Course ID: 002242 Instructor Consent Required Piano</td>
<td>Other</td>
<td>Laboratory: 3.0 credits</td>
<td>Pre-requisite: Consent of instructor.</td>
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<td>Laboratory: 3.0 credits (90 contact hours).</td>
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<tr>
<td>MUP 102(1 - 3)</td>
<td>Course ID: 002243 Instructor Consent Required Voice</td>
<td>Other</td>
<td>Laboratory: 3.0 credits</td>
<td>Pre-requisite: Consent of instructor.</td>
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<td>Laboratory: 3.0 credits (90 contact hours).</td>
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<tr>
<td>MUP 114(1 - 3)</td>
<td>Course ID: 006459 Instructor Consent Required Trombone I</td>
<td>Other</td>
<td>Laboratory: 3.0 credits</td>
<td>Pre-requisite: Consent of instructor.</td>
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<td>Laboratory: 3.0 credits (90 contact hours).</td>
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<tr>
<td>MUP 123(1 - 3)</td>
<td>Course ID: 002245 Instructor Consent Required Piano</td>
<td>Other</td>
<td>Laboratory: 3.0 credits</td>
<td>Pre-requisite: Consent of instructor.</td>
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<td>(90 contact hours)</td>
<td>Laboratory: 3.0 credits (90 contact hours).</td>
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<tr>
<td>MUP 201(1 - 3)</td>
<td>Course ID: 002246 Instructor Consent Required Piano</td>
<td>Other</td>
<td>Laboratory: 3.0 credits</td>
<td>Pre-requisite: Consent of instructor.</td>
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<td>(90 contact hours)</td>
<td>Laboratory: 3.0 credits (90 contact hours).</td>
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<tr>
<td>MUP 202(1 - 3)</td>
<td>Course ID: 002247 Instructor Consent Required Piano</td>
<td>Other</td>
<td>Laboratory: 3.0 credits</td>
<td>Pre-requisite: Consent of instructor.</td>
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<td>(90 contact hours)</td>
<td>Laboratory: 3.0 credits (90 contact hours).</td>
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<tr>
<td>MUP 214(1 - 3)</td>
<td>Course ID: 006460 Instructor Consent Required Trombone II</td>
<td>Other</td>
<td>Laboratory: 3.0 credits</td>
<td>Pre-requisite: Consent of instructor.</td>
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<td>(90 contact hours)</td>
<td>Laboratory: 3.0 credits (90 contact hours).</td>
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<tr>
<td>MUP 223(1 - 3)</td>
<td>Course ID: 003978 Instructor Consent Required Classical Guitar (Second Level)</td>
<td>Other</td>
<td>Laboratory: 3.0 credits</td>
<td>Pre-requisite: Consent of instructor.</td>
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<td>(90 contact hours)</td>
<td>Laboratory: 3.0 credits (90 contact hours).</td>
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</tbody>
</table>
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 in Modules
MUS 104(3) Course ID: 004548
Introduction to Jazz History
A survey of the many facets of jazz music. Designed to follow stylistic trends as developed from 19th century African and European influences to the modern forms of today. The study of significant composers, performers, and terminology associated with this uniquely American art form through listening assignments, reading and discussion activities. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities
MUS 106(3) Course ID: 006188
Music in Film
Presents a survey of the history of film from the silent era to the present. Develops critical listening, viewing, and analytical skills in relation to the function of music in film. Explores various cultural, artistic traditions which inform the musical styles in film. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, University Course (Morehead State University)
MUS 113(1) Course ID: 006900
Class Instruction in Guitar I
Introduces the fundamentals of guitar playing to beginners. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Other, Pilot Course
MUS 114(1) Course ID: 006899
Class Instruction in Guitar II
Develops the fundamentals of guitar playing on an intermediate level. Pre-requisite: Guitar I or consent of instructor. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Other, Pilot Course
MUS 120(3) Course ID: 004609
Music Technology I
Introduces the use of technology as a tool for music. Creativity and productivity. Includes knowledge of how to create various styles of contemporary music utilizing loop and sampling based technology, creation of wav files, MP3 files, CD layout, and class projects. Pre-requisite: MUS 174 or Consent of Instructor. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Other
MUS 121(3) Course ID: 004610
Music Technology II
Continues the process of integrating computer based technology into the creation and design of music through artistic and commercial applications. Covers intermediate skills in music notation, MIDI (Musical Instrument Digital Interface) sequencing, and electronic keyboarding. Includes the exploration of many ways to incorporate these skills into computer/MIDI applications. Pre-requisite: MUS 120 or consent of the instructor. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Other
MUS 150(1) Course ID: 002231
Class Instruction in Piano I
Introduces the fundamentals of piano playing to beginners. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Other
MUS 151(1) Course ID: 002232
Class Instruction in Piano II
Develops the fundamentals of piano playing on a second level, with advanced beginner music and technique. Pre-requisite: MUS 155. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Other
MUS 152(1) Course ID: 002233
Class Instruction in Piano III
Develops the fundamentals of piano playing on an early intermediate level, with an emphasis on expanded repertoire. Pre-requisite: MUS 151. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Other
MUS 153(1) Course ID: 002234
Class Instruction in Piano IV
Develops the technique and musical content of piano playing on an upper intermediate level, with an emphasis on upper intermediate repertoire. Pre-requisite: MUS 152. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Other
MUS 154(1) Course ID: 002235
Instructor Consent Required
Voice Class for Non-Music Majors
Includes applied voice group instruction for non-music majors with emphasis on basic breathing and vocal technique, elements of music notation, and diction. May be repeated for a maximum of 2 credits. Pre-requisite: Consent of instructor. Lab: 1 credit (15 contact hours).
Components: Laboratory
Attributes: Other
MUS 157(1) Course ID: 006791
Instructor Consent Required
Jazz Ensemble
Introduces the study of jazz through performance and may be repeated to a maximum of four credits. Pre-requisite: Consent of Instructor. Lab: 1.0 credit (45 contact hours).
Components: Laboratory
Attributes: Other
MUS 167(1) Course ID: 002239
Instructor Consent Required
Concert Band
Continues instrumental music experience through participation in a large concert band. May be repeated to a maximum of four credits. Pre-requisite: Ability to read music and play a band instrument. Lab: 1 credit (15 contact hours).
Components: Laboratory
Attributes: Other
MUS 182(1) Course ID: 002237
Instructor Consent Required
University Chorus
Includes choral literature and performance requiring attendance at up to five hour of rehearsals per week. May be repeated up to 3 times for a total of 4 credits. May require audition and/or consent of instructor. Pre-requisite: Audition and consent of instructor. Lab: 1 credit (15-45 contact hours).
Components: Laboratory
Attributes: Other
MUS 206(3) Course ID: 000857
American Music History
Includes a history of music in America from c. 1620 to the present. Requires listening to recordings, reading the primary text and suggested readings in books, periodicals, and documents. Focuses on important names, places, events, and styles in music, as well as important historical and social trends and movements. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities
MUS 297(3) Course ID: 004774
African American Music History
A history of African American music from Pre-colonial West African diasporas through American colonial times to the present. Requires listening to recordings, reading the primary text and suggested readings in books and periodicals. Important names, places, events, and styles in music, as well as important historical and social trends will be presented within the context of the African American experience. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities
MUS 208(3) Course ID: 004775
World Music
A geographic survey of selected music cultures throughout the world with hands-on experience playing the music of diverse cultures, audio/video examples of music-cultures in performances, reading and writing assignments, and attendance and reporting at live music events. Includes informational presentations by students, group listening and discussion, simple musical instrument construction, and small group projects. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities
MUS 222(3) Course ID: 002253
History and Sociology of Rock Music
Provides a listening survey course, with a chronological approach, covering the years 1950- present. Emphasizes both the music and the sociological climate reflected and advocated by the music. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities
MUS 223(3) Course ID: 006581
Music for Elementary Teachers
Covers music rudiments of music theory and methods for teaching music to elementary school children. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other, Pilot Course
MUS 260(2) Course ID: 000692
Teaching Music in the Elementary Grades I
Develops musicianship, skills, and techniques teachers need to direct musical activities effectively in the elementary classroom. Introduces music fundamentals and teaching materials through active participation in musical activities, focusing on music education appropriate for elementary grades. Should be taken by classroom teachers and non-music majors and followed by MUS 261. Lecture/Lab: 2 credits (45 contact hours).
Components: Lecture
Attributes: Other
MUS 261(2) Course ID: 000699
Teaching Music in the Elementary Grades II
Builds on the musicianship skills and techniques learned in MUS 260. Develops the process of selecting and teaching musical materials appropriate for elementary-aged children. Introduces methods of integrating music across the elementary curriculum. Should be taken immediately following completion of MUS 260. Pre-requisite: MUS 260. Lecture/Lab: 2 credits (45 contact hours).
Components: Lecture
Attributes: Other
Course Descriptions

MUS 299(1 - 3) Course ID: 006343
Special Topics in Music
Examines selected topics in music and/or their impact on culture. May include but is not limited to individual composers, music genres, defined eras, and applied skills. Topics may vary from semester to semester at the discretion of the instructor. Pre-requisite: MUS 100 or consent of the instructor. Lecture: 1-3 credits (15-45 contact hours).
Components: Lecture Attributes: Other

MUS 1001(1) Course ID: 015802
Elements through Renaissance
Introduces the elements of music as they apply to the listening experience. Emphasizes the development of an awareness and understanding of musical styles from the Middle Ages and Renaissance. Designed for the non-music major with no prior knowledge of music and is not intended to fulfill a program course requirement for music majors. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MUS 1002(1) Course ID: 015803
Baroque & Classical Music
Emphasizes the development of an awareness and understanding of musical styles from the Baroque and Classical Periods. Pre-requisite: MUS 1001 Elements Through Renaissance. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MUS 1003(1) Course ID: 015804
Romantic 21st Century Music
Emphasizes the development of an awareness and understanding of musical styles from the Romantic Period through 21st Century Music. Pre-requisite: MUS 1002 Baroque & Classical Music. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MUSE Music (Education)
MUSE 222(3) Course ID: 006665
Music for the Elementary Teachers
Music rudiments of music theory and methods for teaching music to elementary school children.
Components: Lecture
Attributes: University Course (Morehead State University)

MVC Metroversity
MVC 299(1 - 8) Course ID: 005317
Metroversity Topics
Includes Special Topics for the Metroversity Consortium (Jefferson Community and Technical College, Bellarmine University, Indiana University Southeast, 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 hours in KTCCS required. Laboratory: 1-8 credits.
Components: Laboratory
Attributes: Other

NAA Nursing Assistant
NAA 100(3) Course ID: 004611
Nursing Assistant Skills I
Provides knowledge and skills for nurse aides to assume the role and responsibility required in a long term care setting. The focus is communication, infection control, safety, resident/patient rights, and basic nursing skills.
Components: Lecture
Course Equivalents: MNA 100
Attributes: Course Also Offered in Modules, Technical

NAA 102(3) Course ID: 006887
Basic Health Unit Coordinating
Presents the duties and responsibilities of the health unit coordinator with an emphasis on communication skills, confidentiality, legal and ethical issues, and order entry. Lecture 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Pilot Course, Technical

NAA 115(3) Course ID: 004612
Nursing Assistant II
Provides knowledge and skills for nurse aides to assume the role and responsibility required in a variety of health care settings. Builds upon MNA 100/NAA 100 and prepares the student to perform advanced nursing assistant skills. Pre-requisite: (MNA 100 or NAA 100) with a grade of "C" or above within one year) or Active Status on the Kentucky Nurse Aide Registry (in good standing) or consent of instructor. Lecture: 2.0 credits (30 contact hours) Lab: 1.0 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

NAA 125(6) Course ID: 004613
Advanced Nursing Assistant
Provides knowledge and skills for nurse aides to assume the role and responsibility required in a variety of health care settings. Focuses on communication, infection control, safety, resident/patient rights while preparing the student to perform advanced nursing assistant skills. Note: Faculty and clinical sites must comply with applicable Federal and Kentucky laws and regulations including but not limited to 42 USC 1396r and 907 KAR 1:450. Lecture/Lab: 0.0 credits (150 contact hours).
Components: Lecture
Attributes: Technical

NAA 1001(2) Course ID: 006250
Long Term Care Nurse Aide
Provides knowledge and skills for nurse aides to assume the role and responsibility required in a long term care setting. Focuses on communication, infection control, safety, resident/patient rights, and basic nursing skills.
Note: Faculty and clinical sites must comply with applicable Federal and Kentucky laws and regulations including but not limited to 42 USC 1396r and 907 KAR 1:450. Lecture: 2.0 credits (30.0 contact hours).
Components: Lecture

NAA 1002(0.56) Course ID: 006251
Nurse Aide Skills Laboratory
Includes the laboratory component for application of skills and concepts taught in the nurse aide program. Pre-requisite: NAA 1001. Lab: 0.56 credit (25.0 contact hours).
Components: Laboratory

NAA 1003(0.44) Course ID: 006252
Nurse Aide Clinical Rotation
Includes the required supervised practical training component. Provides a working knowledge of the physiological, psychological, and sociological impact of institutionalization on the nursing facility resident.
Pre-requisite: NAA 1002. Clinical: 0.44 credit (20 contact hours).
Components: Clinical

NAA 1021(1) Course ID: 016419
Health Unit Coordinating
Presents communication skills and safety duties and responsibilities of the health unit coordinator. Lecture: 1 credit (15 contact hours).
Components: Lecture

NAA 1022(1) Course ID: 016420
Health Unit Management
Presents health unit coordinator duties and responsibilities regarding confidentiality and legal and ethical issues. Pre-requisite: NAA 1021 Lecture: 1 credit (15 contact hours).
Components: Lecture

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

NFT Natural Gas Technology
NFT 125(1) Course ID: 005024
Compliance With National Fuel Gas Code
A continuation of safety information unique to the natural gas industry. Emphasis is placed on effective ways to avoid accidents and injuries at the worksite. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical

NFT 130(1) Course ID: 005025
Compliance With Code of Federal Regulations
A survey of the criteria for the installation, maintenance and inspection of gas pipelines up to the outlet of the customers meter. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical

NFT 210(3) Course ID: 005032
Troubleshooting Cathodic Protection Rectifiers
Presents the electrical circuits basic to protection current rectifiers. Lecture: 2 credit (30 contact hours) Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

NFT 1000(0.25) Course ID: 006446
Basic Procedures/Processes
Presents the major components of a natural gas system from well head to burner. Presents actions that each component has on the gas stream in the context of the total system. Reviews key terms and definitions applied to conditions common to the utilization of natural gas.
Lecture: 0.25 credits (3.75 contact hours).
Components: Lecture

NFT 1002(0.25) Course ID: 006447
Basic Properties of Fuel Gases
Presents advanced procedures for extracting natural gas from the earth and for transporting and regulating natural gas with an emphasis on the physical and chemical properties of natural fuel gases. Lecture: 0.25 credits (3.75 contact hours).
Components: Lecture

NFT 1003(0.75) Course ID: 006448
Adjusting Gas Burners
Presents the science of gas burner design, factors affecting the proper combustion of fuel gas, and techniques used to measure gas input rates, gas flow, and pressure.
Lecture: 0.25 credits (3.75 contact hours) Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NFT 1004(0.75) Course ID: 006449
Regulating Natural Gas
Presents factors related to measurement of natural gas in a distribution system, pressure regulation, accurate measurement of natural gas, and irregularities in meter installations. Lecture: 0.25 credits (3.75 contact hours) Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NFT 1005(0.5) Course ID: 006450
Gas Distribution Calculations
Presents methods for calculating area and volume measurements, gas flow rate measurements and heating values, venting and ventilation requirements for proper burning of natural gas, and comparing fuel costs.
Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture
NGT 1006(0.5) Course ID: 006451
Records & Compliance Reports
Focuses on the Department of Transportation reporting requirements, reading maps of natural gas systems, and preparing field sketches. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NGT 1101(1.25) Course ID: 006452
Controlling/Preventing Fires
Introduces factors related to the fire extinguishing process, ways to prevent gas fires, and ways to extinguish natural gas fires. Lecture: 0.25 credits (3.75 contact hours); Lab: 1.0 credits (30 contact hours).
Components: Laboratory, Lecture

NGT 1102(0.75) Course ID: 006461
Safe Working Environment
Emphasizes safe practices, proper use of equipment, hazards of escaping gas, and drug testing and rehabilitation programs. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.5 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 1103(0.5) Course ID: 006462
Preventing Accidental Ignition
Identifies conditions, causes, and hazards related to gas leakage; emphasizes safety practices and procedures to prevent accidental ignition of natural gas. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1104(0.5 - 500) Course ID: 006463
Traffic Control Guidelines
Present the basic standard for traffic control as described in the annual on Uniform Traffic Control Devices, Part VI. According to the U.S. Department of Transportation. Components: Laboratory, Lecture

NGT 1401(0.5) Course ID: 006465
Excavating
Focuses on the Occupational Safety and Health Administration (OSHA) requirements for earth excavation, protection systems, and tables and specifications for designing protective systems. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1402(1.25) Course ID: 006466
Operating Equipment Safely
Presents techniques of tractor/loader/backhoe operation while emphasizing safety precautions, maintenance and inspection, and proper control. Lecture: 0.25 credits (3.75 contact hours), Lab: 1 credit hour (30 contact hours).
Components: Laboratory, Lecture

NGT 1403(0.75) Course ID: 006467
Safety in Confined Spaces
Introduces confined spaces with emphasis on identifying hazards, monitoring of the atmosphere, entry procedures, and controlling hazardous energy. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.5 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 1404(0.5) Course ID: 006468
Communicating Potential Hazard
Examines health related chemical and explosive hazards while emphasizing identification of hazard information from labels and material safety data sheets and methods used to work safely with toxic chemicals and hazardous materials. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1501(0.5) Course ID: 006453
Gas-in-Air Mixture
Focuses on detecting the presence and measuring the percent of gas in a gas-in-air mixture. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NGT 1502(0.5) Course ID: 006454
Gas Leaks/Odors
Presents basic facts about natural gas and natural gas leaks with emphasis on responding to gas leak and odor calls. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1503(0.5) Course ID: 006455
Underground Facilities
Presents techniques and procedures basic to locating and marking underground pipeline facilities. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1504(0.5) Course ID: 006456
Underground Leaks
Presents the theory and practice for investigating and pinpointing underground natural gas leaks. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1505(0.75) Course ID: 006464
Patrol/Leakage Surveys
Presents factors basic to patrol of pipeline facilities to include the practice of patrol and leakage surveys. Lecture: 0.5 credits (7.5 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1506(0.25) Course ID: 006618
Detecting Carbon Monoxide
Presents the characteristics of carbon monoxide and the guidelines for investigation of carbon monoxide. Lecture: 0.25 credits (3.75 contact hours).
Components: Lecture

NGT 1601(0.75) Course ID: 006469
Establishing a Gas Service
Presents methods used when establishing a gas service with emphasis pining 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 III-V 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 control 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 safely, standards, and line-marking. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1802(0.5) Course ID: 006478
Pipeline Installation
Examines the preparation of the pipeline right-of-way and the completion of the construction operation; presents the major phases of the inspection process. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NGT 1803(0.5) Course ID: 006479
Joining Plastic Pipe
Presents the material specifications and installation practices for polyethylene pipe, joining plastic pipe with mechanical fittings, and identification of methods to control static electricity. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1804(0.75) Course ID: 006480
Plastic Pipe & Heat Fusion
Presents the theory of heat fusing polyethylene pipe and the specification and conditions required to produce an acceptable joint. Lecture: 0.5 credits (7.5 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1805(0.5) Course ID: 006481
Permanent Field Repairs
Presents common methods and installation practices used to make field repairs on gas piping facilities and natural gas pipelines. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1806(0.25) Course ID: 006482
Joining Copper Pipe
Presents materials and techniques for joining copper pipe/tubing. Lecture: 0.25 credits (3.75 contact hours).
Components: Lecture

NGT 1901(0.5) Course ID: 006483
Maintaining Line Valves
Presents basic design characteristics and maintenance procedures for pipeline valves. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NGT 1902(0.5) Course ID: 006484
Pressure Relief Valves
Presents components and operating characteristics of typical pressure relief valve installations; emphasizes spring-operated and pilot-operated pressure relief valves; focuses on factors to consider when installing pressure relief valves. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NGT 1903(0.5) Course ID: 006485
Abandon/Deactivate Facilities
Presents processes and procedures for deactivating/abandoning gas facilities. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture
NGT 1904(0.5) Course ID: 006486
Cast Iron Pipe
Presents materials and procedures for repairing cast iron pipe; emphasizes protection of cast iron pipe while excavating. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2002(0.75) Course ID: 006489
Pipeline Piggling
Presents techniques basic to piggling pipelines. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 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 2000(0.75) 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).
Components: Laboratory, Lecture

NGT 2003(0.75) Course ID: 006490
Purging Techniques
Presents factors affecting the mechanical nature of displacing one gas with another gas by purging. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 2004(0.75) Course ID: 006491
Tie-In/Bypass Operations
Presents procedures for performing tie-in/bypass operations. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 2005(0.5) Course ID: 006492
Corrosion Control
Presents the characteristics of corrosion, conditions causing corrosion in buried metal piping, and procedures and basic to corrosion control. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2006(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 2007(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 2008(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 2010(1) Course ID: 006496
Principles of Electricity
Presents the basics of both D.C. and A.C. electrical theory with an emphasis on current flow designs. Lecture: 1 credit (15 contact hours).
Components: Lecture

NGT 2102(1) Course ID: 006497
Rectifier Components
Presents the theory and practice of identifying and testing typical rectifier components with emphasis on the identification of rectifying circuits, rectifier selection methods, and specialized types of rectifiers. Lecture: 0.50 credits (7.5 contact hours), Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 2103(1) Course ID: 006498
Rectifiers
Presents information and techniques for putting cathodic protection rectifier systems into service. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2104(0.5) Course ID: 006500
Proper Odorant Levels
Presents the operation procedures and maintenance of catalytic and water bath indirect pipeline heaters. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NGT 2105(0.5) Course ID: 006501
Pipeline Heaters
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: Laboratory, Lecture

NGT 2106(0.5) Course ID: 006502
Rectifiers
Presents the operation procedures and maintenance of catalytic and water bath indirect pipeline heaters. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NGT 2107(1) Course ID: 006503
Dew Point of a Gas
Covers theory and practice used to test the dew point of a gas; explains methods used to test moisture in gas. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2108(1) Course ID: 006504
Griffie Meters
Presents operating principles of griffie 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 2109(1) Course ID: 006505
Turbine Meters
Presents operating principles of turbine type meters; emphasizes the identification of the meter components and their functions in the measurement process. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2110(1) Course ID: 006506
Diaphragm Meters
Presents operating principles of diaphragm-type meters; emphasizes the identification of the meter components and their functions in the measurement process. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2103(1) Course ID: 006499
Gas Measurement
Presents concepts and principles basic to gas measurement; demonstrates the effects of gas pressure and temperature on gas measurement using mathematical calculations; reviews the operating principles of diaphragm, rotary and turbine meters used to measure gas. Lecture: 0.5 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2102(1) Course ID: 006500
Maintaining Line Valves
Presents the basic operating principles and maintenance schedules of gas flow control valves; demonstrates proper use and care of high-pressure grease guns. Lecture: 0.5 credits (7.5 contact hours), Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 2101(0.5) Course ID: 006499
Gas Measurement
Presents concepts and principles basic to gas measurement; demonstrates the effects of gas pressure and temperature on gas measurement using mathematical calculations; reviews the operating principles of diaphragm, rotary and turbine meters used to measure gas. Lecture: 0.5 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2305(0.5) Course ID: 006508
Pressure Relief Valves
Presents purpose and operating characteristics of pressure relief valves; emphasizes inspecting, testing and maintenance of relief valves. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2304(0.5) Course ID: 006507
Rotary Meters
Presents operating principles of rotary meters; emphasizes the identification of the meter components and their functions in the measurement process. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2303(0.5) Course ID: 006506
Rectifiers
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
NIP 102(3) Course ID: 006847 Introduction of Pharmacology Introduces dosage calculations and medication administration of commonly used medications. Includes an overview of common drug classifications, drugs and their effects. Emphasizes nursing responsibility, accountability, and application of nursing process to drug therapy. Incorporates the fundamental core values: caring, diversity, ethics, excellence, holism, integrity, and patient-centeredness. Integrates the concepts: context and environment, knowledge and science, quality and safety, relationship-centered care. Pre-requisite: Admission to the Integrated Nursing Program; successful completion of a Medicaid Nurse Aide equivalent course and proof of active status on the Medicaid Nurse Aide Registry. Completion, with a grade of “C” or better, of BIO135, PSY110, and CIT105 or OST 105 or equivalent. Students must have Basic Life Support certification, current liability insurance coverage and current immunizations for the duration of the course. Pre-requisite or Co-requisite: AHS 100, NIP 116.

Components: Lecture Attributes: Technical

NIP 116(10) Course ID: 006838 Fundamentals of Nursing Focuses on basic nursing concepts that the beginning nurse will need to provide care to diverse clients utilizing the six integrated concepts of nursing practice: context and environment, knowledge and science, quality and safety, relationship-centered care, and teamwork. Examines current and historical issues impacting nursing. Introduces framework for organizing the care of clients with alterations in basic human needs by incorporating the seven core values of caring, diversity, excellence, ethics, holism, and patient-centeredness. Focuses on the integration of knowledge, skills acquisition, and critical thinking in the provision of prudent health care delivery. Examines client’s needs, self-concept, basic human needs, prevention of complication as related to mechanisms of self-defense including immunity, inflammation, infection, and the surgical patient. Examines client’s needs, health promotion, therapeutic communication, treatment modalities, concepts of mental health and assessment.

Components: Clinical, Laboratory, Lecture Attributes: Course Also Offered in Modules, Technical

NIP 120(3) Course ID: 005381 Maternal Child Nursing Care Focuses on health promotion in the context of the family experiencing reproductive issues including pregnancy, labor and delivery, the newborn. Focuses on management of care for patients with perinatal complications and high-risk newborns. Integrates concepts of the NLN Education Competencies Model, Neuman’s Systems Model and the Maslow Hierarchy, including pharmacological and therapeutic interventions throughout the course. Pre-requisite: Completion with a grade of “C” or better in NIP 116, NIP 102 and AHS 100. Students must have Basic Life Support certification, current liability insurance coverage and current immunizations for the duration of the course. Pre-requisite: Or Co-requisite: NIP 128. Lecture: 2.0 credits (30 contact hours). Clinical: 1.0 credit (45 contact hours).

Components: Clinical, Laboratory, Lecture Attributes: Course Also Offered in Modules, Technical

NIP 128(10) Course ID: 006842 Medical Surgical Alteration Focuses on care of clients with malignancies to normal lines of defense in hematology, immune, integumentary, fluid and electrolyte/ acid/base imbalance, respiratory, musculoskeletal, cardiovascular, gastrointestinal/ hepatobiliary, renal/urinary, endocrine, reproductive, and neurological systems. 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 System Model to provide care for clients by incorporating the core values of caring, diversity, excellence, integrity, ethics, holism, and patient-centeredness. Through clinical experience and theory application, examines the clients’ needs, health promotion, various treatment modalities, and nursing interventions. Pre-requisite: Completion with a grade of “C” or better in NIP 102, NIP 116; Students must have Basic Life Support certification, current liability insurance coverage and current immunizations for the duration of the course.

Components: Clinical, Laboratory, Lecture Attributes: Course Also Offered in Modules, Technical

NIP 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. Examines healthcare management systems and employment seeking skills as students begin to develop a professional identity. Includes a clinical praxis in a health care facility utilizing the nursing process and evidence-based information in delivering clinically competent care. Prerequisite: Completion, with a grade of “C” or better in NIP120, NIP128. Students must have Basic Life Support certification, current liability insurance coverage and current immunizations for the duration of the course. Lecture: 2.0 credits (30 contact hours). Clinical: 4.0 credits (180 contact hours). Components: Clinical, Lecture Attributes: Course Also Offered in Modules, 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. Uses the nursing process in care and management of clients with complex health care needs and disorders of self-defense: protection, skin, hair and nails, cancer, hematological system, peripheral vascular system, cardiovascular system, respiratory system, endocrine system, gastrointestinal system, reproductive system, renal/urinary system, nervous system, sensory system, musculoskeletal system and lymphatic system across the lifespan. Pre-requisite: Completion with grade of “C” or better in NIP 120 and NIP 129 or successful completion of a Practical Nursing program curriculum and proof of active unencumbered Kentucky or Compact State Practical Nurse Licensure. Students must have Basic Life Support certification, current liability insurance coverage and current immunizations for the duration of the course. Pre-requisite: Or Co-requisite: AHS 100, NIP 116.

Components: Clinical, Laboratory, Lecture Attributes: Technical

NMI 114(2) Course ID: 005715 Physics and Instrumentation I Introduces concepts and physical principles that govern radioactivity and the interactions of radiation with matter, the principles, operation and quality control for non-imaging, gas-filled detectors and non-imaging scintillation detectors; also the principles and applications of statistics as they relate to radiation detection and counting. Prerequisite: Admission to the NMMI program, Computer Literacy, ([MAT 150) and (BIO 137 and BIO 139)] or consent of instructor. Corequisite: CHE 140 and either PHY 171 or PHY 172 and NMI 141 and NMI 142 and NMI 150. Lecture: 2.0 credits (30 contact hours).

Components: Laboratory, Lecture Attributes: Technical

NMI 142(1) Course ID: 005716 Radiation Biology and Protection Covers interactions of ionizing radiation with human tissues, its potential effects, dosimetry and its relation to exposure. Covers radiation protection principles, applications and NRC regulations. Prerequisite: Admission to the NMMI program. Computer Literacy, ([MAT 150) and (BIO 137 and BIO 139)] or consent of instructor. Corequisite: NMI 140 and NMI 142 and NMI 150. Prerequisite or Corequisite: CHE 140 and either PHY 171 or PHY 172. Lecture: 1.0 credit (15 contact hours).

Components: Laboratory, Lecture Attributes: Technical

NMI 150(2) Course ID: 005717 Clinical I Introduces concepts of clinical practice with application of knowledge and principles from previous general education course work and/or concurrent NMI courses. Will include actual clinical experience in an affiliated nuclear medicine clinical setting. Prerequisite: Admission to the NMMI program. Computer Literacy, ([MAT 150) and (BIO 137 and BIO 139)] or consent of instructor. Corequisite: NMI 140 and NMI 141 and NMI 142) or consent of instructor. NMI 140 and either PHY 171 or PHY 172. Clinical: 2.0 credits (180 contact hours).

Components: Clinical Attributes: Technical
NMI 160(2) Course ID: 005718
Clinical Procedures II
Covers imaging of organs and systems in relation to the abdomen and gastrointestinal tract in addition to imaging procedures and quantitative evaluation of the pulmonary system. Prerequisite: [NMI 140 and NMI 141 and NMI 142 and NMI 150] with a grade of C or greater] or consent of instructor. Corequisite: NMI 161 and NMI 170. Prerequisite or Corequisite: CHE 150. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

NMI 161(2) Course ID: 005719
Physics and Instrumentation II
Includes use and quality control of the various types of systems used for scintillation imaging and computed tomography in hybrid imaging. Covers the configuration, function, and application of computers in nuclear medicine. Prerequisite: [NMI 140 and NMI 141 and NMI 142 and NMI 150] with a grade of C or greater] or consent of instructor. Corequisite: NMI 160 and NMI 170. Prerequisite or Corequisite: CHE 150. Lecture/Lab: 2.0 credits (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

NMI 170(2) Course ID: 005726
Clinical Procedures IV
Covers oncologic imaging procedures, inflammatory/ infectious process imaging procedures, radionuclide therapy procedures, non-imaging procedures related to hematology and vitamin B-12 absorption/excretion and pediatric imaging. Pre-requisite: [NMI 240 and NMI 260] with a grade of C or greater] or consent of instructor. Corequisite: NMI 270 or consent of instructor. Lecture: 4.0 (60 contact hours).
Components: Lecture
Attributes: Technical

NMI 220(2) Course ID: 005721
Clinical III
Continuation of NMI 150 Clinic I. Covers clinical practice with application knowledge and principles from previous general education course work and previous/current NMI courses. Will include actual clinical experience in an approved nuclear medicine clinical setting. Prerequisite: [(NMI 140 and NMI 141 and NMI 142 and NMI 150) with a grade of C or greater] or consent of instructor. Corequisite: NMI 230 or consent of instructor. Clinical: 2.0 credits (180 contact hours).
Components: Clinical
Attributes: Technical

NMI 230(2) Course ID: 005722
Radiopharmacy
Covers procurement, preparation, quality control, dispensing, patient dosage calculation, identification, documentation, administration, disposal, storage, and safe handling of radioactive materials used by the nuclear medicine technologist. Includes commonly used pharmaceuticals in Nuclear Medicine, including dosages, side effects, contraindications, adverse reactions and antagonists. (C contrast media administration.). Prerequisite: [(NMI 160 and NMI 161 and NMI 170) with a grade of C or greater] or consent of instructor. Corequisite: NMI 220 or consent of instructor. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

NMI 240(4) Course ID: 005723
Clinical Procedures III
Covers imaging procedures of the urinary system, central nervous system and endocrine systems including appropriate interventional and challenge procedures. Prerequisite: [NMI 220 and NMI 230] with a grade of C or greater] or consent of instructor. Corequisite: NMI 260 or consent of instructor. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

NMI 250(4) Course ID: 005724
Clinical Procedures IV
Covers oncologic imaging procedures, inflammatory/ infectious process imaging procedures, radionuclide therapy procedures, non-imaging procedures related to hematology and vitamin B-12 absorption/excretion and pediatric imaging. Pre-requisite: [NMI 240 and NMI 260] with a grade of C or greater] or consent of instructor. Corequisite: NMI 270 or consent of instructor. Lecture: 4.0 (60 contact hours).
Components: Lecture
Attributes: Technical

NMI 260(4) Course ID: 005725
Clinical IV
Continuation of NMI 220 Clinic III; Covers application of knowledge and principles from previous general education course work and/or previous/current NMI courses. Will include actual clinical experience in an approved nuclear medicine clinical setting. Pre-requisite: [NMI 240 and NMI 260] with a grade of C or greater] or consent of instructor. Corequisite: NMI 270 or consent of instructor. Clinical: 4.0 credits (360 contact hours).
Components: Clinical
Attributes: Technical

NMI 270(4) Course ID: 005726
Clinical V
Continuation of NMI 260 Clinic IV; Covers application of knowledge and principles from previous general education course work and/or previous/current NMI courses. Includes actual clinical experience in an approved nuclear medicine clinical setting. Pre-requisite: [(NMI 250 and NMI 260) with a grade of C or greater] or consent of instructor. Corequisite: CHE 150. Clinical: 3.0 credits (360 contact hours).
Components: Clinical
Attributes: Technical

NPM 100(2) Course ID: 004021
Introduction to Nursing & Health Care System
Includes a historical overview of current health care including medical economics, ethical and legal parameters, roles and responsibilities of health care team members with an emphasis on reflective nursing practice. Explores medical terminology, therapeutic communication techniques, concepts of health, health assessment, self care and basic needs related to activities of daily living across the lifespan. Prerequisite: Admission to Practical Nursing program AND CPR for Health Care Providers certification to be maintained throughout enrollment in the program AND [(NAA 100 or equivalent) within the past three years OR active status on the Medicaid Nurse Aide Registry] AND Digital Literacy as defined by KCTCS. Prerequisite or Corequisite: [(BIO 135 or BIO 139) and (AHS 100 or PSI 223) with a minimum grade of C in each course] OR Consent of PN Coordinator. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

NPM 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 Functional Health Patterns as related to client daily living across the life span. Covers fundamental nursing skills including therapeutic communication techniques; nursing assessment; nursing process and care planning; legal and ethical parameters of health care; rest and sleep; body mechanics and introducitory content on the surgical experience. Prerequisite: Admission to Practical Nursing program AND CPR for Health Care Providers certification to be maintained throughout enrollment in the program AND [(NAA 100 or equivalent) within the past three years OR active status on the Medicaid Nurse Aide Registry] AND Computer Literacy as defined by KCTCS. [ENG 101 and MT 110 and (AHS 115 or CLA 131) with a minimum C grade]. Prerequisite or Corequisite: ([BIO 135 or BIO 223], Minimum C grade Lecture: 4 credits (60 contact hours). Lab: 2 credits (60 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. Prerequisite: Admission to Practical Nursing program AND CPR for Health Care Providers certification to be maintained throughout enrollment in the program AND [NAA 100 or equivalent] within the past three years OR active status on the Medicaid Nurse Aide Registry AND Digital Literacy as defined by KCTCS. Prerequisite or Corequisite: (BIO 135 or BIO 139) and (AHS 100 or PSY 223) with a minimum grade of C in each course OR Consent of PN Coordinator. Minimum C grade. Lecture: 1.0 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
Introduces dosage calculations and medication administration of commonly used medications. Includes an overview of common drugs, drug classifications, and effects administered in the following modes: oral, sublingual, rectal, topical, intradermal, intramuscular, subcutaneous, intravenous including IV fluid administration skills. Emphasizes nursing responsibility, accountability, and application of nursing process to drug therapy. Prerequisite: Admission to Practical Nursing program AND CPR for Health Care Providers certification to be maintained throughout enrollment in the program AND [(NAA 100 or equivalent) within the past three years OR active status on the Medicaid Nurse Aide Registry] AND Digital Literacy as defined by KCTCS. Prerequisite or corequisite: Pathway 2: NPN 101 and (BIO 135 or BIO 139) and (AHS 115 or AHS 120 or CLA 131 or OST 103) and (AHS 100 or PSY 223). If taken as pre-requisite must complete with a grade of C or better. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (90 contact hours). Components: Clinical, Laboratory, Lecture Attributes: Course Also Offered in Modules, Technical
NPN 115(6) Course ID: 004626
Practical Nursing Bridge Course
Provides overview of the health care system and roles and responsibilities of the health care team. Emphasizes the nursing process in the context of Gordon's Functional Health Patterns and Maslow's hierarchy of needs as related to client daily living across the life span. Covers fundamental nursing skills including therapeutic communication techniques, nursing assessment, and the nursing process. Introduces dosage calculations and administration of medications. Includes an overview of common drugs, drug classifications, and effects of drugs administered in all modes. Emphasizes nursing responsibility, accountability, and the application of the nursing process to drug therapy. Upon successful completion of all components of the course, the student will be admitted to NPN 135 and will have earned advanced standing hours, dependent upon curriculum option. Prerequisite: Admission to the Practical Nursing Program AND [(NAA 115 or equivalent) AND (BIO 135 or BIO 139) AND (ENG 101 or COM 101 or COM 252 or TEC 200) AND (CLA 131 or AHS 120 or OST 103) AND (AHS 100 or PSY 223)] OR Consent of PN Coordinator. Minimum C grade. Lecture: 2.0 credits (30 contact hours). Lab/Clinical: 1.0 credit (45 contact hours).
Components: Clinical, Laboratory, Lecture Attributes: Technical
NPN 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. Prerequisite: Pathway 1: (NPN 100 and NPN 105 and NPN 110 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223) or Consent of PN coordinator. Minimum C grade. Prerequisite or Corequisite: Pathway 2: (NPN 101 and NPN 111 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223) or Consent of PN coordinator. Minimum C grade. Prerequisite or Corequisite: Pathway 3: (NPN 106 and NPN 108 and BIO 139 and PSY 223) Minimum C grade. Lecture: 2.0 credits (30 contact hours). Lab/Clinical: 1.0 credit (45 contact hours).
Components: Clinical, Laboratory, Lecture Attributes: Course Also Offered in Modules, Technical
NPN 130(3) Course ID: 004026
Pharmacology II
Studies common drugs by classification and effects with emphasis on responsibility, accountability, and application of the nursing process to drug therapy. Prerequisite: (NPN 100 and NPN 105 and NPN 110 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223) or Consent of PN Coordinator. Minimum C grade. Lecture: 2.0 credits (30 contact hours). Lab/Clinical: 1.0 credit (45 contact hours).
Components: Clinical, Laboratory, Lecture Attributes: Technical
NPN 135(6) Course ID: 004027
Introduction to Health Deviation
Introduces application of the nursing process for selected child/adult clients experiencing common health deviations interacting with activities of daily living. Emphasis in on the nurse as the provider of care. Prerequisite: Pathway 1: [(NPN 100 and NPN 105 and NPN 110 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223)] or Consent of PN Coordinator. Minimum C grade. Lecture: 2.0 credits (30 contact hours). Lab/Clinical: 2.0 credit (45:1 ratio/30 contact hours).
Components: Clinical, Laboratory, Lecture Attributes: Technical
NPN 200(5) Course ID: 004028
Med Surg I
Applies nursing process to selected child/adult clients experiencing common health deviations interfering with activities of daily living with emphasis on the nurse as the provider of care. Prerequisite: (NPN 125 and NPN 130 and NPN 135 and NPN 201) or Consent of PN Coordinator. Minimum C grade. Lecture: 3.0 credits (45 contact hours). Lab/Clinical: 2 credits (90 contact hours).
Components: Clinical, Laboratory, Lecture Attributes: 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 deviations. Prerequisite: (NPN 200 with a grade of C or greater) or Consent of PN Coordinator. Minimum C grade. Lecture: 3.0 credits (45 contact hours); Lab/Clinical: 2.0 credits (90 contact hours/45:1 ratio).
Components: Clinical, Laboratory, Lecture Attributes: Technical
NPN 206(6) Course ID: 005730
Med-Surg II Alterations
Applies nursing process to selected child/adult clients experiencing complex health issues related to multi-system failure, neurological disorders, coordination dysfunctions, and elimination problems that interfere with activities of daily living with an emphasis on the nurse as the provider of care. Prerequisite: (NPN 202 with a grade of C or greater) or Consent of PN Coordinator. Minimum C grade. Lecture: 2 credits (30 contact hours); Practicum: 1.0 credit (45:1 ratio/15 contact hours).
Components: 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 performance of provider of care, manager of care, and member within the discipline. Prerequisite: Pathway 1: NPN 205. Minimum C grade. Pathway 2: NPN 206. Minimum C grade. Prerequisite Or Co-requisite: Pathway 3: (NPN 208 and NPN 215) or Consent of PN Coordinator. Minimum: C grade. Lecture: 1.0 credit (15 contact hours); Practicum: 3.0 credits (45:1 ratio/15 contact hours).
Components: Lecture, Practicum Attributes: Course Also Offered in Modules, Technical
NPN 215(1) Course ID: 004125
Nursing Trends & Issues
Components: Clinical, Lecture Attributes: Course Also Offered in Modules, Technical
NPN 101(0.5) Course ID: 006270
Roles & Professionalism
Provides a historical overview of health care system and roles and responsibilities of members of the health care team. Covers fundamental nursing skills including therapeutic communication techniques, legal and ethical parameters of health care, cultural aspects of care, and professionalism. Prerequisite: Admission into the KCTCS Online Practical Nursing Program requires minimum grade of C in (BIO137 & BIO 139) and (AHS 115 or CLA 131 or AHS 120 or OST 103) and (PSY100 or PY110 and PSY 223) and (ENG101 and TSC100 or equivalency). Current CPR card for Health Care Providers; Current certification must be maintained throughout the program. Proof of active status on the Kentucky Nurse Aide Registry (KNA). Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture
NPN 102(2) Course ID: 006271
Nursing Process
Emphasizes practical nursing and the nursing process in the context of Gordon's Functional Health Patterns and Maslow's hierarchy of needs as related to client daily living across the life span. Covers fundamental nursing skills including nursing assessment, nursing process, care planning, and charting. Prerequisite: NPN 101 with a C or better. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPN 1013(1)</td>
<td>Basic Human Needs</td>
<td>Emphasizes practical nursing and the nursing process in the context of Gordon's Functional Health Patterns and Maslow's hierarchy of needs as related to client daily living across the life span. Covers fundamental nursing skills including nutrition, metabolism, rest and sleep, and body mechanics. Prerequisite: NPN 1011 with a C or better. Lecture: 0.5 credit (7.5 contact hours).</td>
</tr>
<tr>
<td>NPN 1014(0.5)</td>
<td>Nutrition</td>
<td>Emphasizes practical nursing and the nursing process in the context of Gordon's Functional Health Patterns and Maslow's hierarchy of needs as related to client daily living across the life span. Includes the application of knowledge and skills in a lab setting. Prerequisite: NPN 1011 Completion with a C or better. Prerequisite or corequisite: NPN 1012 and NPN 1013 and NPN 1014 (Pre-requisites must be completed with a C or better). Laboratory: 1 credit (45 contact hours).</td>
</tr>
<tr>
<td>NPN 1015(1)</td>
<td>Nursing Fundamentals Lab</td>
<td>Emphasizes practical nursing and the nursing process in the context of Gordon's Functional Health Patterns and Maslow's hierarchy of needs as related to client daily living across the life span. Includes the application of knowledge and skills in a lab setting. Prerequisite: NPN 1011 Completion with a C or better. Prerequisite or corequisite: NPN 1012 and NPN 1013 and NPN 1014 (Pre-requisites must be completed with a C or better). Laboratory: 1 credit (45 contact hours).</td>
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<tr>
<td>NPN 1051(1)</td>
<td>Intro to Pharmacology</td>
<td>Provides an overview of pharmacological principles, introducing drug calculations, drug classifications and common drugs, as well as effects of medications. Emphasizes nursing responsibility, accountability, and application of nursing process to drug therapy. Prerequisite: NPN 1011 Completion with a C or better. Lecture: 1 credit (15 contact hours).</td>
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<tr>
<td>NPN 1062(1,5)</td>
<td>Nursing Process</td>
<td>Presents the nursing process and the development of the patient plan of care. Prerequisite: NPN 1061. Minimum C grade. Prerequisite or Corequisite: (BIO 139 and PSY 223) Minimum C grade. Lecture: 1 credit (15 contact hours). Lab: 0.5 credits (22.5 contact hours).</td>
</tr>
<tr>
<td>NPN 1063(1,5)</td>
<td>Health Assessment</td>
<td>Presents health assessment and a lab component of various skills that must be successfully completed prior to the student's caring for patients in the clinical arena (versus simulated patients). Prerequisite: NPN 1062 Minimum C grade. Prerequisite or Corequisite: (BIO 139 and PSY 223). Minimum C grade. Lecture: 1 credit (15 contact hours). Lab: 0.25 credits (11.25 contact hours). Clinical: 0.25 credits (11.25 contact hours).</td>
</tr>
<tr>
<td>NPN 1064(2)</td>
<td>Care of the Client Undergoing Surgical Intervention</td>
<td>Presents the patient undergoing surgical intervention and the related lab/clinical components. Prerequisite: NPN 1063. Minimum C grade. Prerequisite or Corequisite: (BIO 139 and PSY 223). Minimum C grade. Lecture: 1.25 credits (19.75 contact hours). Lab: 0.25 credits (11.25 contact hours).</td>
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<tr>
<td>NPN 1082(1,15)</td>
<td>Medication Administration</td>
<td>Presents a discussion of various drug categories and the procedures for correct administration via various routes. Prerequisite: NPN 1081. Minimum C grade Corequisite or Prerequisite: BIO 139 and PSY 223. Minimum C grade. Lecture: 0.75 credits (11.25 contact hours). Lab: 0.4 credits (15 contact hours).</td>
</tr>
<tr>
<td>NPN 1083(1.35)</td>
<td>Parenteral Medication Administration</td>
<td>Presents the concepts and responsibilities of the nurse to medication administration utilizing oral, enteral, sublingual, buccal, rectal, topical, transdermal, intradermal, intramuscular, and subcutaneous routes. Emphasizes nursing responsibility, accountability, and application of nursing process to drug therapy. Prerequisite: NPN 1011 Completion with a C or better. Lecture: 1 credit (15 contact hours).</td>
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<tr>
<td>NPN 1111(1)</td>
<td>Intravenous Therapy</td>
<td>Focuses on the role of the practical nurse in regard to medication administration utilizing oral, enteral, sublingual, buccal, rectal, topical, transdermal, intradermal, intramuscular, and subcutaneous routes. Emphasizes nursing responsibility, accountability, and application of nursing process to drug therapy. Prerequisite: NPN 1112 Completion with a C or better. Laboratory: 1 credit (45 contact hours).</td>
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<tr>
<td>NPN 1112(1)</td>
<td>Intravenous Therapy</td>
<td>Focuses on the role of the practical nurse in regard to medication administration utilizing oral, enteral, sublingual, buccal, rectal, topical, transdermal, intradermal, intramuscular, and subcutaneous routes. Emphasizes nursing responsibility, accountability, and application of nursing process to drug therapy. Prerequisite: NPN 1111. Completion with a C or better. Laboratory: 1 credit (45 contact hours).</td>
</tr>
<tr>
<td>NPN 1251(0.75)</td>
<td>Intro to Psychiatric-Mental Health Nursing</td>
<td>Presents the introduction to psychiatric-mental health nursing and the nurse's role in multidisciplinary care. Prerequisite: (NPN 101 and NPN 105 and NPN 110 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223) with a minimum grade of &quot;C&quot; in each course) or Consent of PN Coordinator. Prerequisite or corequisite: NPN 106 Completion with a C or better or Consent of PN Coordinator. Lecture: 0.5 credits (7.5 contact hours).</td>
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<tr>
<td>NPN 1252(0.75)</td>
<td>Components of the Nurse-Client Relationship</td>
<td>Presents the assessment of the nurse and communication and the nurse’s role in the interprofessional team. Prerequisite: ALL Pathways: NPN 1251. Minimum C grade. Corequisite or Prerequisite: Pathway 2: (NPN 101 and NPN 111 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223) and (AHS 120 or AHS 115 or OST 103 or CLA 131) with a minimum grade of &quot;C&quot; in each course. Pathway 3: (NPN 106 and NPN 108 and BIO 139 and PSY 223) with a minimum grade of &quot;C&quot; in each course. Lecture: 0.5 credits (7.5 contact hours).</td>
</tr>
<tr>
<td>NPN 1253(0.75)</td>
<td>Nursing Ethics</td>
<td>Provides an overview of pharmacological principles, introducing drug calculations, drug classifications and common drugs, as well as effects of medications. Emphasizes nursing responsibility, accountability, and application of nursing process to drug therapy. Prerequisite: NPN 1011 Completion with a C or better. Lecture: 1.0 credit (15 contact hours).</td>
</tr>
<tr>
<td>NPN 1254(0.75)</td>
<td>Special Populations with Psychiatric Disorders</td>
<td>Presents the disorders specific to adult issues of health promotion. Prerequisite: ALL Pathways: NPN 1252. Minimum C grade. Corequisite or Prerequisite: Pathway 2: (NPN 101 and NPN 111 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223) and (AHS 120 or AHS 115 or OST 103 or CLA 131)) with a minimum grade of &quot;C&quot; in each course. Pathway 3: (NPN 106 and NPN 108 and BIO 139 and PSY 223)) with a minimum grade of &quot;C&quot; in each course. Lecture: 0.5 credits (7.5 contact hours).</td>
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<tr>
<td>NPN 1255(1)</td>
<td>Mental Health: Lab and Clinical Experience</td>
<td>Applies the nursing process to clients experiencing common mental health problems with a focus on assisting clients to cope with psychological problems throughout the life span. Focuses on abnormal aspects of mental health. Prerequisite: NPN 1255 Completion with a C or better. Lecture: 1.0 credit (15 contact hours).</td>
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<tr>
<td>NPN 1256(1)</td>
<td>Therapeutic Modalities and Plan of Care</td>
<td>Applies the nursing process to clients experiencing common mental health problems with a focus on assisting clients to cope with psychological problems throughout the life span. Focuses on abnormal aspects of mental health. Prerequisite: NPN 1255 Completion with a C or better. Lecture: 1.0 credit (15 contact hours).</td>
</tr>
<tr>
<td>NPN 1351(0.75)</td>
<td>Perioperative Care</td>
<td>Includes the nursing process for selected child/adult clients experiencing common mental health problems interfering with activities of daily living. Emphasizes the role of the provider of care for those patients experiencing alterations in the perioperative cycle. Prerequisite: (NPN 101 and NPN 105 and NPN 110 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223) with a minimum grade of &quot;C&quot; in each course) OR Consent of PN Coordinator. Lecture: 0.5 credits (7.5 contact hours).</td>
</tr>
<tr>
<td>NPN 1352(0.75)</td>
<td>Perioperative Care</td>
<td>Includes the nursing process for selected child/adult clients experiencing common mental health problems interfering with activities of daily living. Emphasizes the role of the provider of care for those patients experiencing alterations in the perioperative cycle. Prerequisite: (NPN 101 and NPN 105 and NPN 110 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223) with a minimum grade of &quot;C&quot; in each course) OR Consent of PN Coordinator. Lecture: 0.5 credits (7.5 contact hours).</td>
</tr>
</tbody>
</table>
Components: Clinical, Laboratory, Lecture

Clinical 1
Provides for the application of the nursing process for selected child/adult clients experiencing common health deviations interfering with activities of daily living. Emphasizes the nurse as provider of care for those patients experiencing alterations in oxygenation focusing on respiratory function. Prerequisite: NPN 1351 with a C or better. Lecture: 0.75 credit (11.25 contact hours). Laboratory: 0.5 credit (22.5 contact hours).

Components: Laboratory, Lecture

NPN 1353(1)  Course ID: 006284

Clinical 1
Provides for the application of the nursing process for selected child/adult clients experiencing common health deviations interfering with activities of daily living. Emphasizes the nurse as provider of care for those patients experiencing alterations in oxygenation focusing on respiratory function. Prerequisite: NPN 1351 with a C or better. Lecture: 0.75 credit (11.25 contact hours). Laboratory: 0.5 credit (22.5 contact hours).

Components: Clinical, Laboratory, Lecture

NPN 1403(0.75)  Course ID: 005763

Nutrition and Activity/Exercise Functions across the Lifespan
Presents content on alterations in nutrition and activity/exercise, the administration of medications to children, and practice of the role of the practical nurse in planning appropriate interventions. Prerequisite: NPN 1402 Minimum C grade. Prerequisite or corequisite: NPN 201 and NPN 125 with minimum C grade. Lecture: 0.5 credits (7.5 contact hours). Laboratory: 0.125 credits (5.625 contact hours). Clinical: 0.125 credits (5.625 contact hours).

Components: Clinical, Laboratory, Lecture

NPN 1404(0.75)  Course ID: 005764

Surgical Intervention Care
Presents content on the adult/child patient experiencing surgical intervention, and the role of the practical nurse in planning appropriate care. Prerequisite: NPN 1403 Minimum C grade. Prerequisite or corequisite: NPN 201 and NPN 125. Minimum C grade. Lecture: 0.5 credits (7.5 contact hours). Laboratory: 0.125 credits (5.625 contact hours). Clinical: 0.125 credits (5.625 contact hours).

Components: Clinical, Laboratory, Lecture

NPN 2011(0.75 - 1)  Course ID: 005770

Ante-Partal Phase Care
Presents content on prenatal assessment and the role of the practical nurse in planning appropriate interventions. Prerequisite: Pathway 1: (NPN 100 and NPN 105 and NPN 110) and (BIO 135 or BIO 139) and (AHS 100 or PSY 223) with a minimum grade of “C” in each course. Pathway 2: NPN 111 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223) with a minimum grade of “C” in each course. Pathway 3: (NPN 106 and NPN 108 and BIO 139 and PSY 223) with a minimum grade of “C” in each course. Prerequisite or corequisite: Pathway 2: (NPN 202 and (AHS 120 or AHS 115 or OST 103 or CLA 131)). Minimum “C” grade. Lecture: 0.5 (7.5 contact hours). Laboratory: 0.125 credits (5.625 contact hours); Clinical: 0.125 (5.625 contact hours).

Components: Clinical, Laboratory, Lecture

NPN 2012(0.75)  Course ID: 005771

Intra-Partal Phase Care
Presents content on intra-partal assessment and the role of the practical nurse in planning appropriate interventions. Prerequisite: NPN 2011 Minimum C grade. Prerequisite or corequisite: Pathway 2: (NPN 202 and (AHS 120 or AHS 115 or OST 103 or CLA 131)) with a minimum grade of “C” in each course. Lecture: 0.5 credits (7.5 contact hours). Clinical: 0.125 (5.625 contact hours); Laboratory: 0.125 (5.625 contact hours).

Components: Clinical, Laboratory, Lecture

NPN 2013(0.75)  Course ID: 005772

Post-Partal: Maternal Phase Care
Presents content on maternal post-partal assessment and the role of the practical nurse in planning appropriate interventions. Prerequisite: NPN 2012 with minimum C grade. Prerequisite or corequisite: Pathway 2: (NPN 202 and (AHS 120 or AHS 115 or OST 103 or CLA 131)) with a minimum grade of “C” in each course. Lecture: 0.5 credits (7.5 contact hours). Clinical: 0.125 (5.625 contact hours); Laboratory: 0.125 (5.625 contact hours).

Components: Clinical, Laboratory, Lecture

NPN 2014(0.75)  Course ID: 005773

Nursing Care of the Newborn
Presents content on newborn assessment and the role of the practical nurse in planning appropriate interventions. Prerequisite: NPN 2013 Minimum C grade. Prerequisite or corequisite: Pathway 2: (NPN 202 and (AHS 120 or AHS 115 or OST 103 or CLA 131)) with a minimum grade of “C” in each course. Lecture: 0.5 credits (7.5 contact hours). Clinical: 0.125 (5.625 contact hours); Laboratory: 0.125 (5.625 contact hours).

Components: Clinical, Laboratory, Lecture

NPN 2015(0.5)  Course ID: 006288

Prenatal and Women's Health
Presents content on prenatal assessment and women's health focusing on the role of the practical nurse in planning appropriate interventions in an interactive format.

Prerequisite: Pathway 1*: (NPN 100 and NPN 105 and NPN 110 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223)). Minimum “C” grade. Pathway 2*: (NPN 101 and NPN 111 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223)) Minimum “C” grade. Pathway 3*: (NPN 106 and NPN 108 and BIO 139 and PSY 223). Minimum “C” grade. Prerequisite or corequisite: Pathway 2: (NPN 202 and (AHS 120 or AHS 115 or OST 103 or CLA 131)). Minimum “C” grade. Lecture: 0.5 credit (7.5 contact hours).

Components: Lecture

NPN 2021(1)  Course ID: 006293

Alterations in Metabolism
Applies nursing process to selected child/adult clients experiencing common health deviations related to metabolic dysfunctions that interfere with activities of daily living with emphasis on the role of the practical nurse as the provider of care. Prerequisite: NPN 1356 Completion with a C or better. Lecture: 1 credit (15 contact hours).

Components: Lecture

NPN 2022(1)  Course ID: 006294

Fluid and Electrolytes
Applies nursing process to selected child/adult clients experiencing common health deviations related to fluid and electrolyte imbalances that interfere with activities of daily living with emphasis on the role of the provider. Prerequisite: NPN 2021 Completion with a C or better. Lecture: 1 credit (15 contact hours).

Components: Lecture

NPN 2023(1)  Course ID: 006295

Metabolism Clinical Practice
Demonstrate the knowledge gained in NPN2021 and NPN2022. Provide care for clients with alterations in metabolism, fluid and electrolyte imbalances. Prerequisite: NPN 2021 Completion with a C or better. Laboratory or Clinical: 1 credit (45 contact hours).

Components: Clinical, Laboratory

NPN 2024(1)  Course ID: 006296

Cellular Proliferation
Applies nursing process to selected child/adult clients experiencing common health deviations related to cellular deviations that interfere with activities of daily living with emphasis on the role as the provider of care. Prerequisite: NPN 2023 Completion of a C or better. Lecture: 1 credit (15 contact hours).

Components: Lecture

NPN 2025(1)  Course ID: 006297

Alterations in Perfusion
Applies nursing process to selected child/adult clients experiencing common health deviations related to cardiovascular dysfunctions that interfere with activities of daily living with emphasis on the role of the practical nurse as the provider of care. Prerequisite: NPN 1356 Completion with a C or better. Completion with a C or better. Lecture: 1 credit (15 contact hours).

Components: Lecture

NPN 2026(1)  Course ID: 006298

Perfusion & Cell Deviation Clinicals
Demonstrates the knowledge gained in NPN2024 and NPN2025 in providing care for clients with alterations in metabolism, fluid and electrolyte imbalances. Prerequisite: NPN 2024 Completion with a C or better. Laboratory or Clinical: 1.0 credit (45 contact hours).

Components: Clinical, Laboratory

NPN 2061(1)  Course ID: 006299

Alterations in Coordination
Applies nursing process to selected child/adult clients experiencing common health deviations related to coordination dysfunctions that interfere with activities of daily living with emphasis on the role of the practical nurse as the provider of care. Prerequisite: NPN 2026. Completion with a C or better. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
NPN 2062(1.5) Course ID: 006300
Neurological Alterations
Applies nursing process to selected child/adult clients experiencing common health deviations related to coordination dysfunction that interferes with activities of daily living with emphasis on the role of the practical nurse as the provider of care. Prerequisite: NPN 2061 Completion with a C or better. Lecture: 1.5 credit (22.5 contact hours).
Components: Lecture

NPN 2063(1) Course ID: 006301
Neuro/Coordination Clinical
Applies nursing process to selected child/adult clients experiencing common health deviations related to coordination dysfunction that interfere with activities of daily living with emphasis on the role of the practical nurse as the provider of care. Prerequisite: NPN 2062. Completion with a “C” or better. Laboratory: 1.0 credit (45 contact hours).
Components: Laboratory

NPN 2064(1) Course ID: 006302
Elimination Alterations
Applies nursing process to selected child/adult clients experiencing common health deviations related to elimination dysfunction that interfere with activities of daily living with emphasis on the role of the practical nurse as the provider of care. Prerequisite: NPN 2063 Completion with a C or better. Lecture: 1 credit (15 contact hours).
Components: Lecture

NPN 2065(0.5) Course ID: 006303
Multi System Failure
Applies nursing process to selected child/adult clients experiencing common health deviations related to multi-system failure that interfere with activities of daily living with emphasis on the role of the practical nurse as the provider of care. Prerequisite: NPN 2064 Completion with a C or better. Lecture: 0.5 credit (7.5 contact hours).
Components: Lecture

NPN 2066(1) Course ID: 006304
Multi System Failure Clinical
Applies nursing process to selected child/adult clients experiencing common health deviations related to multi-system failure and elimination disorders that interfere with activities of daily living with emphasis on the role of the practical nurse as the provider of care. Prerequisite: NPN 2065. Completion with a “C” or better. Clinical: 1.0 credit (45 contact hours).
Components: Clinical

NPN 2081(2) Course ID: 005765
Neurological Function Care
Presents content on alterations in neurological function and the role of the practical nurse in planning appropriate interventions. Prerequisite: NPN 125 and NPN 140 and NPN 201. Minimum C grade. Corequisite: NPN 210 and NPN 215. Lecture: 1.2 credits (18 contact hours), Clinical: 0.8 credits (36 contact hours).
Components: Clinical, Lecture

NPN 2082(2) Coordination/Special Senses/Integumentary Function
Presents content on patients with alterations in coordination, special senses, and integumentary function, and the role of the practical nurse in planning appropriate interventions. Prerequisite: NPN 2081 with a grade of C or greater. Corequisite: NPN 210 and NPN 215. Lecture: 1.2 credits (18 contact hours), Clinical: 0.8 credits (36 contact hours).
Components: Clinical, Lecture

NPN 2084(2) Course ID: 005768
Metabolism & Elimination Care
Presents content on the patient with alterations in metabolism and elimination and the role of the practical nurse in planning appropriate interventions. Prerequisite: NPN 2083 with a grade of C or greater. Corequisite: NPN 210 and NPN 215. Lecture: 1.2 credits (18 contact hours), Clinical: 0.8 credits (36 contact hours).
Components: Clinical, Lecture

NPN 2085(2) Course ID: 005769
Cell Function/Multi-System Failure Care
Presents content on alterations in cellular division and multi-system organ failure, and the role of the practical nurse in planning appropriate interventions. Prerequisite: NPN 2084 with a grade of C or greater. Corequisite: NPN 210 and 215. Lecture: 1.2 credits (18 contact hours), Clinical: 0.8 (36 contact hours).
Components: Clinical, Lecture

NPN 2101(1) Course ID: 005774
Theoretical Concepts of Clinical Practicum
Presents concepts of legal nursing practice that will be implemented in the NPN 2102 practicum experience. Prerequisite: Pathway 1: NPN 205. Minimum “C” grade Pathway 2: NPN 206. Minimum “C” grade. Prerequisite or corequisite: Pathway 3: (NPN 208 and NPN 215) with a minimum grade of “C” in each course) or Consent or PN Coordinator. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

NPN 2102(3) Course ID: 005775
Clinical Practicum
Presents the nursing practicum experience in the clinical setting. Prerequisite: All Pathways: NPN 2101 with a grade of “C” or greater. Prerequisite or corequisite: Pathway 3: (NPN 208 and NPN 215) with a minimum grade of “C” in each course) or Consent of PN Coordinator. Practicum: 3.0 credits (153 contact hours).
Components: Practicum

NPN 2151(0.5) Course ID: 005776
Leadership and Management as a Professional Concept
Presents content on leadership, management, and regulatory issues for the role of practical nurse. Prerequisite: Pathway 1: NPN 125 and NPN 130 and NPN 135 and NPN 201) with a minimum grade of “C” in each course. Pathway 2: NPN 125 and NPN 135 with a minimum grade of “C” in each course. Pathway 3: (NPN 208 and NPN 215) with a minimum grade of “C” in each course). Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NPN 2152(0.5) Course ID: 005777
Role Transition from Student to Graduate Practice
Prepares the student to transition to a career in practical nursing, Prerequisite: NPN 2151, Prerequisite or corequisite: Pathway 2: (NPN 201 and NPN 202 and NPN 206 and NPN 210) with a minimum grade of “C” in each course. Pathway 3: (NPN 208 and NPN 215) with a minimum grade of “C” in each course. Lecture: 0.5 credits (3.5 contact hours).
Components: Lecture

NRS 100(2) Course ID: 006616
Enhancing Nursing Student Success
Enhances the probability of students being successful in a nursing program by fostering beginning concepts and skills that are built upon the nursing curriculum. Introduces the four roles of nursing practice including human flourishing, human judgment, professional identity, and spirit of inquiry. Prerequisite: NRS 102 with a grade of “C” or better. Pre-requisite Or Co-requisite: BIO 225 or BIO 227 with a grade of “C” or better; ENG 102. Lecture: 9.0 credits (275 clinical hours).
Components: Clinical, Lecture

NRS 101(9) Course ID: 004332
Nursing Care I
Establishes the foundation for competency based nursing practice by introducing beginning concepts and skills that are built upon the nursing curriculum. Introduces the four roles of nursing practice including human flourishing, human judgment, professional identity, and spirit of inquiry. Applies problem-solving and critical thinking skills in the care of clients across the life span and of diverse cultures with actual or the potential for health alterations due to common acute and chronic health problems. Includes the application of the nursing process to meet the needs of patients at the practical nursing level. Pre-requisite: Admission to the Nursing Program; Proof of active status on Kentucky Medicaid Nurse Aide Registry or its equivalent and computer literacy; (BIO 137 and (MAT 110 or MAT 150 or higher mathematics course) with a grade of “C” or better); PSY 110. Pre-requisite Or Co-requisite: (BIO 139 with a grade of “C” or better) and PSY 223. Lecture: 9.0 credit hours (255 clinical hours).
Components: Clinical, Lecture

NRS 102(10) Course ID: 004333
Nursing Care II
Includes the application of problem-solving and critical thinking skills in the care of clients across the life span and of diverse cultures with actual or the potential for alterations in health due to common acute and chronic health problems. Provides care of clients during the childbearing cycle focusing on common health alterations in the reproductive process. Strengthens the four roles of nursing practice including human flourishing, human judgment, professional identity, and spirit of inquiry while higher level skills are introduced. Includes an integrated clinical practicum of direct patient care in a 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 and oral communications course. Lecture: 10.0 credits (300 clinical hours).
Components: Clinical, Lecture

NRS 200(3) Course ID: 004334
LPN-ADN Transition
Facilitates the transition of licensed practical nurses into the nursing mobility program by building upon previous knowledge, attitudes, and cognitive and psychomotor skills using strategies of adult learning. Orients 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. Emphasizes essential concepts and beginning problem-solving skills required for registered nursing practice. Upon successful completion of all components of NRS 200, the student will be admitted to NRS 203 and earn eight (8) credit hours for NRS 101 and eight (8) hours for NRS 102 for a total of sixteen (16) credit hours. Prerequisite: Admission to nursing program; BIO 137, BIO 139, and (MT 110 or MT 150 or higher mathematics courses) with a grade of “C” or better; ENG 101, computer literacy, oral communications course, (PY 110 or PSY 100) and PSY 223. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture

NRS 203(9) Course ID: 004335
Nursing Care III
Applies problem-solving and critical thinking skills in the care of diverse clients/families across the life span with actual or the potential for alterations in health due to complex acute and chronic health problems. Emphasizes leadership, management concepts, critical decision-making, knowledge, judgment, skills and professional values within a legal/ethical framework. Introduces the RN responsibilities in relation to the four roles of nursing practice including human flourishing, human judgment, professional identity, and spirit of inquiry. Pre-requisite: NRS 102 with a grade of “C” or better. Pre-requisite Or Co-requisite: BIO 225 or BIO 227 with a grade of “C” or better; ENG 102. Lecture: 9.0 credits (225 clinical hours).
Components: Clinical, Lecture

Attributes: Technical

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Course Descriptions
NRS 204(10) Course ID: 004336
Nursing Care IV
Integrates previous knowledge and skills into the development of the associate degree nurse. Focuses on the four roles of nursing practice including human flourishing, human judgment, professional identity, and spirit of inquiry with an emphasis on leadership, management, clinical decision-making, collaboration, knowledge, judgment, skills and professional values within a legal/ethical framework. Applies problem-solving and critical thinking skills in the care of diverse clients/families across the lifespan with actual or potential alterations in health due to complex acute and chronic health problems. Includes an integrated clinical practicum of direct patient care in a health care facility or health care organization to facilitate the transition from student role to RN practice. Pre-requisite: NRS 203 and (BIO 227 or BIO 225) with a grade of "C" or better. Pre-requisite Or Co-requisite: Prior to or concurrent Heritage/Humanities. Lecture: 10.0 credits (270 clinical hours).
Components: Clinical, Lecture
Attributes: Technical

NSG Nursing

NSG 100(3) Course ID: 005269
Preparation for Nursing
Explores careers in the nursing profession. Includes career options and educational pathways, goal setting and self-awareness, tools/strategies for success in nursing programs, and trends impacting nursing’s future. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

NSG 101(9) Course ID: 005568
Nursing Practice I
Covers nursing practice using functional health patterns within the context of the contemporary health care delivery system. Emphasizes foundation knowledge of nursing practice, skills acquisition, and the care of patients with health perception-health management, value-belief, and rest-sleep dysfunctional health patterns. Prerequisite: Admission to the Associate Degree Nursing program. (BIO 137 and MAT 110 or (MAT 150 or higher) with a grade of "C" or better), PSY 110 and Computer Literacy. Pre-requisite Or Co-requisite: BIO 139 with a grade of "C" or better and PSY 223, Lecture: 5.0 credits (75 contact hours), Clinical: 4.0 credits (180 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Technical

NSG 106(9) Course ID: 006179
Nursing One
Introduces and applies Gordon’s Functional Health Patterns (FHP) within the context of the contemporary health care system. Emphasizes foundation knowledge of nursing practice, skills acquisition, and the care of clients with risk for or actual common chronic health pattern dysfunctions. Prerequisite: Admission to the Associate Degree Nursing Program, BIO 137 (within ten years) with a grade of "C" or better, MAT 110 or MAT 150 with a grade of "C" or better, and PSY 110. Prerequisite or Corequisite: BIO 139 with a grade of "C" or better (within 10 years) and ENG 101. Lecture: 5.0 credits (75 contact hours). Clinical: 4.0 credits (180 contact hours).
Components: Clinical, Lecture
Attributes: Technical

NSG 126(3) Course ID: 004280
Pharmacology in Nursing
This is an elective course which studies common drugs, their classification, and their effects on functional and dysfunctional health patterns. Areas of emphasis include nursing responsibility, accountability, and application of the nursing process regarding drug therapy. Lecture: 3 hours.
Components: 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 the nursing care for the patient with mental health dysfunctions and the patient experiencing acute and/or chronic health pattern dysfunctions. Covers selected content and skills from Nursing One and Nursing Two. Includes the role of the Associate Degree Nurse and application of the core components of nursing practice to patient’s experience. Prerequisite: Admission to Associate Degree Nursing Program, BIO 137 and BIO 139 (within ten years) with a grade of C or better, MAT 110 or MAT 150 with a grade of C or better, PSY 110, ENG 101, PSY 223 and Oral Communications Corequisite. Lecture or Corequisite: NSG 216, Lecture: 4.0 credits (60 contact hours). Clinical: 1.0 credit (45 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

NSG 197(3) Course ID: 005907
Transition to ADN
Builds upon the basic nursing skills and concepts learned in the LVNLN experiences to make the Practical Nurse to the beginning transition to the RN role. Includes the role of the Associate Degree Nurse and application of the course components of nursing practice to patients experiencing the dysfunctional health patterns of nutritional-metabolic and elimination. Upon successful completion of all components of the course, the student will be admitted to NSG 220 and will have earned by advanced standing, 15 credit hours in nursing. Prerequisite: Admission to the Associate Degree Nursing Program and (BIO 137 and BIO 139 and (MAT 110 or (MAT 150 or higher) with a grade of "C" or better), PSY 110, PSY 223, ENG 101, Oral Communications and Computer Literacy. Prerequisite or corequisite: NSG 215 and NSG 212 with a grade of "C" or better, Lecture: 2.5 credits (37.5 contact hours), Laboratory: 0.5 credit (22.5 contact hours).
Components: Clinical, Lecture
Attributes: Technical

NSG 199(2) Course ID: 005905
Accelerated Transition: PN-A.D.N Bridge
Provides an accelerated course designed for the LPN/ LVN who demonstrates through competency assessment the ability to build upon previous learning and experience. Focuses on the beginning transition to the RN role, the acquisition of essential skills and the development of critical thinking in the care of patients experiencing the dysfunctional health patterns of nutritional-metabolic and elimination. Upon successful completion of all components of the course the student will be admitted to NSG 220 and will have earned by advanced standing, a total of 15 credit hours in nursing. Prerequisite: Admission to the Associate Degree Nursing Program and (BIO 137 and BIO 139 and (MAT 110 or (MAT 150 or higher) with a grade of "C" or better), PSY 110, PSY 223, ENG 101, Oral Communications, Computer Literacy and a passing score on a national normed PN to RN mobility examination. Corequisite: NSG 215 and NSG 212. Lecture: 1.5 credit (22.5 contact hours) Laboratory: 0.5 credit (22.5 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

NSG 201(5) Course ID: 000790
LPN to ADN Bridge
This course will build upon the basic nursing skills and concepts learned in the LVN/LPN experience. The course is designed to assist the Practical Nurse to make the beginning transition to the RN role. Areas of study include the role of the Associate Degree Nurse and application of the core components of nursing practice to clients experiencing the dysfunctional health patterns of health perception-health management, value-belief, rest-sleep, activity-exercise and nutritional-metabolic. Upon successful completion of all components of the course, the student will be admitted to NSG 203 and will have earned by advanced standing, 18 credit hours in nursing. Lecture: 4 hours Laboratory: 3 hours. Prerequisite: BIO 137, BIO 139, MT 110 or MT 150 or higher with a grade of C or better, PSY 110, ENG 101, Computer Literacy. Components: Laboratory, Lecture
Attributes: Technical

NSG 206(8) Course ID: 006181
Nursing Two
Includes the application of core components of nursing to clients experiencing alterations in health. Focuses on nursing care for the client with mental health dysfunctions and the client experiencing acute and/or chronic health pattern dysfunctions. Prerequisite: NSG 106 with a grade of "C" or better. Corequisite: NSG 216. Prerequisite or corequisite: PSY 223 and Oral Communications course. Lecture: 5 credits (75 contact hours). Laboratory/Clinical: 4 credits (180 contact hours, 45:1 ratio).
Components: Clinical, Laboratory, Lecture
Attributes: Technical

NSG 210(6) Course ID: 005906
Medical Surgical Nursing I
Focuses on the application of the core components of nursing to adult patients experiencing dysfunctional health patterns. Emphasizes the care of patients with nutritional-metabolic and elimination dysfunctional health patterns. Prerequisite: (NSG 101 and BIO 139) with a grade of "C" or better and PSY 223. Prerequisite or corequisite: (NSG 212 and NSG 215) with a grade of "C" or better, ENG 101 and Oral Communications. Lecture: 3.0 credits (45 contact hours), Laboratory: 3.0 credits (135 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Technical

NSG 211(3) Course ID: 005908
Maternal Newborn Nursing
Focuses on the application of the core components of nursing to the care of childbearing families experiencing functional and dysfunctional health patterns. Prerequisite: (NSG 210, NSG 212 and NSG 215), with a grade of "C" or higher, ENG 101 and Oral Communications. Prerequisite or corequisite: NSG 220 with a grade of "C" or higher, ENG 102, and BIO 225, Lecture: 2.0 credits (30 contact hours), Laboratory: 1.0 credit (45 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Technical

NSG 212(3) Course ID: 005909
Behavioral Health Nursing
Focuses on the application of the nursing care to patients experiencing a dysfunctional health pattern. Emphasizes the care of patients with Coping-Stress Tolerance and Altered Role-Relationship health patterns. Prerequisite: (NSG 101 and BIO 139) with a grade of "C" or higher and PSY 223. Prerequisite or corequisite: (NSG 210 and NSG 215) with a grade of "C" or higher, ENG 101 and Oral Communications. Lecture: 2.0 credits (30 contact hours) Laboratory: 1.0 credit (45 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Technical

NSG 213(3) Course ID: 005910
Pediatric Nursing
Focuses on the application of the core components of nursing to the care of the child and family experiencing functional and dysfunctional health patterns. (Unsuccessful completion of NSG 213 will require mandatory withdrawal from NSG 230; 201 KAR 20:220). Prerequisite: (NSG 220 and NSG 211 and BIO 225) with a grade of "C" or better, ENG 102. Co-requisite: NSG 230 or consent of instructor. Prerequisite or Co-requisite: NSG 225 with a grade of "C" or better, and Heritage/Humanities. Lecture: 2.0 credits (30 contact hours) Laboratory: 1.0 credit (45 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Technical

NSG 215(1) Course ID: 005911
Pharmacology I
Focuses on common drugs, their classification and effects on functional and dysfunctional health patterns (value/belief, rest/sleep, health perception/health management, nutritional/metabolic and elimination health patterns). Emphasizes nursing responsibility, accountability, and application of the nursing process regarding drug therapy. Prerequisite: (NSG 101 and BIO 139) with a grade of "C" or higher and PSY 223. Pre-requisite or Co-requisite: (NSG 210 and NSG 212) with a grade of "C" or higher, ENG 101 and Oral Communication. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical
NSG 216(1)
Course ID: 006182
Nursing Pharmacology I
Focuses on common drugs; classifications, indications, and effects. Emphasizes nursing implications and the use of the nursing process in medication administration with emphasis on content introduced in Nursing One and Nursing Two. Pre-requisite: NSG 106 with a grade of "C" or better. Co-requisite: NSG 206 or NSG 196. Pre-requisite or Co-requisite: PSY 223 and Oral Communications course. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

NSG 220(6)
Course ID: 005912
Medical/Surgical Nursing II
Focuses on the application of the core components of nursing to adult patients experiencing dysfunctional health patterns. Emphasizes the care of patients with activity-exercise dysfunction health patterns (cardiac, respiratory and musculoskeletal). Pre-requisite: (NSG 210, NSG 215 and NSG 212) with a grade of "C" or higher and ENG 101 and Oral Communications. Pre-requisite or Co-requisite: (NSG 211 and BIO 225) with a grade of "C" or higher and ENG 102. Lecture: 3.0 credits (45 contact hours). Laboratory: 3.0 credits (135 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Technical

NSG 225(1)
Course ID: 005913
Pharmacology II
Focuses on common drugs, their classification and effects on functional and dysfunctional health patterns (activity-exercise, coping/stress/tolerance, role/relationship, altered self-perception/self-concept, and cognitive perceptual). Emphasizes nursing responsibility, accountability and application of the nursing process regarding drug therapy. (Unsuccessful completion of NSG 225 will require mandatory withdrawal from NSG 230; 201 KAR 20:320). Pre-requisite: (NSG 220 and NSG 210 and BIO 225) with a grade of "C" or higher and ENG 102. Co-requisite: NSG 230 or consent of instructor. Pre-requisite or Co-requisite: Heritage/Humanities/Foreign Language and NSG 213. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical

NSG 226(1)
Course ID: 006183
Nursing Pharmacology II
Focuses on common drugs: classifications, indications, and effects. Emphasizes nursing implications and the use of the nursing process in medication administration with emphasis on content introduced in Nursing Three and Nursing Four. Pre-requisite: (NSG 206 and NSG 216) with a grade of "C" or better. Co-requisite: NSG 236. Pre-requisite or Co-requisite: BIO 225 (within ten years) with a grade of "C" or better and ENG 102. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

NSG 230(6)
Course ID: 005914
Medical/Surgical Nursing III
Focuses on the application of the core components of nursing to adult patients experiencing dysfunctional health patterns. Emphasizes the care of patients with cognitive/perceptual, altered self-perception/self-concept, management of patients with dysfunctional health patterns: neurological, eyes/ears, immune/cancer, multiple systems organ failure, and disaster planning. Role transition is addressed and emphasizes leadership, management of care, skill development and professionalism. NSG 230 is the capstone course and must be successfully completed in the final semester of the associate degree nursing program enrollment. Pre-requisite: 201 KAR 20:320. Pre-requisite: (NSG 220 and NSG 211 and BIO 225) with a grade of "C" or higher and ENG 102. Pre-requisite or Co-requisite: NSG 213, NSG 225, Heritage/Humanities/Foreign Language. Lecture: 3.0 credits (45 contact hours) Laboratory: 3.0 credits (135 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Technical

NSG 236(9)
Course ID: 006184
Nursing Three
Includes application of the core components of nursing to the care of child-bearing and child-rearing families experiencing functional and dysfunctional health patterns. Pre-requisite: (NSG 206 and NSG 216) with a grade of "C" or better. Co-requisite: NSG 226. Pre-requisite or Co-requisite: BIO 225 (within ten years) with a grade of "C" or better and ENG 102. Lecture: 5.0 credits (75 contact hours) Laboratory/Classroom: 4.0 credits (180 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

NSG 246(9)
Course ID: 006185
Nursing Four
Focuses on the development of the nurse as a provider of care, manager of care, and member of the nursing profession. Provides for the application of critical thinking skills in the care of diverse patients/families across the lifespan with actual or potential alteration in health due to complex acute and chronic health problems. Includes an integrated practicum with an emphasis on leadership, management, clinical judgment, collaboration, knowledge, skills, and professional values within the legal/ethical framework to facilitate the transition of the student to Registered Nurse practice. Pre-requisite: (NSG 236 and NSG 226) with a grade of "C" or better. Pre-requisite or Co-requisite: Heritage/Humanities/Foreign Language. Lecture: 5.0 credits (75 contact hours) Laboratory/Classroom: 4.0 credits (80 contact hours, 45:1 ratio).
Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

NSG 270(3)
Course ID: 004293
Genetic Disorders
Introduction to various genetic disorders which health care workers are likely to see during their careers. Specific areas of study include basic genetic concepts, inheritance modalities, genetic disorders, and their direct impact on nursing care. Follows up on information obtained in Anatomy and Physiology, high school science, and basic biology classes presently offered by KCTCS. Components: Lecture
Attributes: Technical

NSG 295(3)
Course ID: 005782
Healthcare Cultural Immersion Experience
Introduces health care providers to cultural values, beliefs, practices, and communication patterns of a chosen culture through an immersion experience. Focuses on basic cultural vocabulary and on behaviors, beliefs, and nursing and health care practices of the chosen population. May be conducted in a country native to the chosen cultural group. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Clinical

NSG 298(3)
Course ID: 004434
Alternative and Complementary Therapies
This is an elective course that focuses on the impact of alternative and complementary therapies in nursing practice. Holistic nursing is emphasized, as well as the nurse's role in enhancing health of the whole person from birth to death. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

NSG 299(1 - 4)
Instructor Consent Required
Selected Topics in Nursing: (Topic)
Various nursing topics, issues, and trends will be addressed. Topics may vary from semester to semester at the discretion of the instructor. Courses may be repeated with different topics to a maximum of six credit hours. Lecture: Varies by topic; Laboratory: Varies by topic. Pre-requisite: Consent of instructor.
Components: Laboratory, Lecture
Attributes: Technical

NSG 1961(0.4)
Validation of Essential Skills
Review of essential skills set. Pre-requisite: Admission to LPN to A.D.N. Bridge Program. Duration: 10 years, with a grade of C or better and (MT 110 or MT 150) with a grade of C or better and (PSY 100 or PY 110) and PSY 223 and Oral Communications. Laboratory: 0.4 credit (18 contact hours).
Components: Laboratory

NSG 1962(1)
Course ID: 006306
Role Transition - Level I
Provides transitions from the Licensed Practical Nurse to the role of Associate Degree Nurse. Pre-requisite: NSG 1961 with a grade of C or better. Pre-requisite or Co-requisite: NSG 2161 with a grade of C or better if taken as a pre-requisite. Lecture: 1 credit (15 contact hours).
Components: Lecture

NSG 1963(1)
Course ID: 006307
Behavioral Health
Focuses on the nursing care for the client with mental health dysfunctions. Pre-requisite: (NSG 1962 and NSG 2161) with a grade of C or better. Lecture: 1 credit (15 contact hours).
Components: Laboratory

NSG 1964(0.3)
Introduction to ADN Skills I
Allows students to demonstrate competencies for the care of the mental health client. Pre-requisite: NSG 1963 with a grade of C or better. Pre-requisite or Co-requisite: NSG 2162 with a grade of C or better if taken as a pre-requisite. Laboratory: 0.3 credit (13.5 contact hours).
Components: Laboratory

NSG 1965(2)
Course ID: 006309
Medical-Surgical Dysfunctions
Covers the implementation of nursing care for the client experiencing acute and/or chronic dysfunction in Gordon's Functional Health Patterns. Pre-requisite: (NSG 1964 and NSG 2162) with a grade of C or better. Lecture: 2 credits (30 contact hours).
Components: Lecture

NSG 1966(0.3)
Introduction to ADN Skills II
Allows students to demonstrate skills competencies for the care of patients. Pre-requisite: NSG 1965 with a grade of C or better. Pre-requisite or Co-requisite: NSG 2163 with a grade of C or greater if taken as a Pre-requisite. Laboratory: 0.3 credit (13.5 contact hours).
Components: Laboratory

NSG 2161(0.2)
Course ID: 006311
Principles of Pharmacology
Emphasizes nursing implications and the use of the nursing process in medication administration. Pre-requisite: Admission to LPN to A.D.N. Bridge Program. Pre-requisite: (BIO 137 and BIO 139) within ten years, with a grade of C or better and (MT 110 or MT 150) with a grade of C or better and (PSY 100 or PY 110) and PSY 223 and Oral Communications and ENG 101 and (NSG 1961 with a grade of C or better). Pre-requisite or Co-requisite: NSG 2162 with a grade of C or better if taken as a Pre-requisite. Lecture: 0.2 credit (3 contact hours).
Components: Lecture

NSG 2162(0.2)
Course ID: 006312
Nurse's Role in Drug Therapy
Focuses on classifications, indications, and effects of common drugs. Emphasizes nursing implications and the use of the nursing process in medication administration. Pre-requisite: (NSG 2161) with a grade of C or better. Pre-requisite or Co-requisite: (NSG 1964) with a grade of C or better if taken as a pre-requisite. Lecture: 0.2 credit (3 contact hours).
Components: Lecture

NSG 2163(0.6)
Course ID: 006313
Pharmacy Agents 1.0
Focuses on classifications, indications, and effects of common drugs. Emphasizes nursing implications and the use of the nursing process in medication administration. Pre-requisite: NSG 2162 with a grade of C or better. Pre-requisite or Co-requisite: NSG 1966 with a grade of C or better if taken as a Pre-requisite. Lecture: 0.6 credit (9 contact hours).
Components: Lecture

Attributes: Technical
Components: Lecture
NSG 2261(0.1) Course ID: 006314
Nursing Pharmacology 2.0
Focuses on classifications, indications, and effects of common drugs. Emphasizes nursing implications and the use of the nursing process in medication administration. Pre-requisite: Admission to LPN to ADN Bridge Program. ([BIO 137 and BIO 139] within ten years, with a grade of C or better) and ([MT 110 or MT 150]) with a grade of C or better) and (PSY 100 or PY 110) and PSY 223 and Oral Communications and ENG 101 and [NSG 196 and NSG 216]) with a grade of C or better). Pre-requisite or Co-requisite: BIO 225 within ten years, with a grade of C or better and ENG 102 and ([NSG 2361 and NSG 2362 and NSG 2363]) with a grade of C or better if taken as a Pre-requisite. Lecture: 0.1 credit (1.5 contact hours).

Components: Lecture

NSG 2262(0.9) Course ID: 006315
Nursing Pharmacology 2.1
Focuses on classifications, indications, and effects of common drugs. Emphasizes nursing implications and the use of the nursing process in medication administration. Pre-requisite: NSG 2261 with a grade of C or better. Pre-requisite or Co-requisite: NSG 2364 with a grade of C or better if taken as a Pre-requisite. Lecture: 0.9 credit (13.5 contact hours).

Components: Lecture

NSG 2361(2.5) Course ID: 006316
Childbearing Family
Applies core components of nursing in the care of child-bearing families experiencing functional and dysfunctional health patterns. Pre-requisite: (NSG 196 and NSG 216) with a grade of C or better. Pre-requisite or Co-requisite: BIO 225 within ten years, with a grade of C or better and ENG 102. Lecture: 2.5 credit (37.5 contact hours).

Components: Lecture

NSG 2362(2) Course ID: 006317
Maternal-Newborn Clinical
Applies core components of nursing in the care of child-bearing families experiencing functional and dysfunctional health patterns. Pre-requisite: NSG 2361 with a grade of C or better. Pre-requisite or Co-requisite: NSG 2261 with a grade of C or better if taken as a Pre-requisite. Clinical: 2 credits (90 contact hours).

Components: Clinical

NSG 2363(2) Course ID: 006318
The Pediatric Client
Applies core components of nursing in the care of child-bearing families experiencing functional and dysfunctional health patterns. Pre-requisite: NSG 2362 with a grade of C or better. Pre-requisite or Co-requisite: NSG 2262 with a grade of C or better if taken as a Pre-requisite. Lecture: 2 credits (30 contact hours).

Components: Lecture

NSG 2364(0.5) Course ID: 006319
Role Transition - Level II
Provides overview of competencies required for entry into practice. Pre-requisite: NSG 2963 with a grade of C or better. Lecture: 0.5 credit (7.5 contact hours).

Components: Lecture

NSG 2365(2) Course ID: 006755
Pediatric Clinical
Applies core components of nursing in the care of child-bearing and child-rearing families experiencing functional and dysfunctional health patterns. Pre-requisite: NSG 2364 with a grade of "C" or greater. Clinical: 2 credits (90 contact hours).

Components: Clinical

NSG 2461(2) Course ID: 006320
Medical Surgical Nursing II A
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 clients/families across the lifespan with actual or potential alteration in health due to complex acute and chronic health problems. Emphasizes leadership, management, clinical decision-making, collaboration, knowledge, judgment, 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 greater. Pre-requisite or Co-requisite: Heritage/Humanities or Foreign Language Course. Lecture: 2 credits (30 contact hours).

Components: Lecture

NSG 2462(2) Course ID: 006321
Medical Surgical Nursing II B
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 clients/families across the lifespan with actual or potential alteration in health due to complex acute and chronic health problems. Emphasizes leadership, management, clinical decision-making, collaboration, knowledge, judgment, skills, and professional values within the legal/ethical framework to facilitate the transition of the student to Registered Nurse practice. Pre-requisite: NSG 2461 with a grade of C or better. Lecture: 2 credits (30 contact hours).

Components: Lecture

NSG 2463(1) Course ID: 006322
Medical Surgical Nursing II C
Promotes an integrated practicum with an emphasis on leadership, management, clinical decision-making, collaboration, knowledge, judgment, skills, and professional values within the legal/ethical framework to facilitate the transition of the student to Registered Nurse practice. Pre-requisite: NSG 2462 with a grade of C or better. Clinical: 1 credit (15 contact hours).

Components: Clinical

NSG 2464(4) Course ID: 006323
Integrated Clinical Practicum
Includes an integrated practicum with an emphasis on leadership, management, clinical decision-making, collaboration, knowledge, judgment, skills, and professional values within the legal/ethical framework to facilitate the transition of the student to Registered Nurse practice. Pre-requisite: NSG 2463 with a grade of C or better. Clinical: 4 credits (180 contact hours).

Components: Clinical

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 develops an introductory level of skill producing simple 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 and familiarizes students with essential computer concepts and terminology including operating systems software, multitasking concepts, disk and file management and telecommunications. Teaches basic competencies in word processing, electronic spreadsheets, presentations, databases, and online skills including networking, electronic mail, Web browsing, and Internet research. (Key 20 wpm is recommended). Pre-requisite: RDG 020. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

OST 110(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 111(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. Career in the financial industry discussed. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

OST 113(1) Course ID: 005270
Speedbuilding
Presents techniques for increased keyboarding speed and accuracy. Lecture: 1 credit (15 contact hours). Pre-requisite: OST 100 or equivalent as determined by typing competency test.

Components: Lecture
Attributes: Technical

OST 130(3) Course ID: 004518
Typography
Introduces the principles of typography, text basics, type aesthetics, how to design with type, parameters of type and how they can be used to produce quality type. Utilizes advanced commands and pagination composition skills. Studies grids, file management and other options such as design standards with business publications. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

OST 150(3) Course ID: 003771
Transcription and Office Technology
Produces 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 160(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 used in an office. Pre-requisite: OST 110. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical
OST 213(3)  Course ID: 004517
Business Calculations for The Office Professional
Applies skills required for the performance of business tasks: use of numeric keypad to compute payroll, markup/ markdown, purchases, loans, discounts, stock and bond transactions; and other business applications. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

OST 215(3)  Course ID: 003774
Office Procedures
Studied 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

OST 216(1 - 6)  Course ID: 004515
Selected Topics
Expands course offerings to address local office issues as new technology is developed. Varies from semester to semester at the discretion of the instructor; may be repeated with different topics to a maximum of six credit hours. Lecture: 1-6 hours (15-90 contact hours).
Components: Lecture
Attributes: Technical

OST 220(3)  Course ID: 003775
Administrative Office Simulations
Applies administrative office simulations to include organizing, communicating, scheduling, and analyzing. Emphasizes productivity, efficiency, accuracy, and problem solving. Uses technology to research information on the Internet and send and receive e-mail. Continues to develop speed and accuracy. Pre-requisite: OST 210, OST 215, and OST 240, or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

OST 221(3)  Course ID: 005469
Legal Office Simulation
Applies classroom experiences and skills in a simulated legal office environment. Pre-requisite: OST 110. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

OST 225(3)  Course ID: 003776
Introduction to Desktop Publishing
Uses desktop publishing software to design and produce high resolution publications such as flyers, brochures, business forms, and newsletters. Introduces basic design techniques, type and graphics layout, and related terminology. Pre-requisite: (OST 105 and OST 110) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

OST 228(3)  Course ID: 003777
Business Communications Technology
Presents aspects of communications technology used in the global business environment, including presentations software; a basic understanding of voice recognition software; planning and composition of written, oral, and electronic communications; grammar, punctuation, and spelling; and principles of proofreading, both manual and electronic. Pre-requisite: (ENG 101 or OST 108) and (CIT 105 or OST 105). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

OST 240(3)  Course ID: 003778
Software Integration
Expands computer skills through the use of spreadsheet, database management, word processing, and presentation software for the integration of information. Pre-requisite: CIT 103 or OST 105. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

OST 250(3)  Course ID: 004514
Advanced Desktop Publishing
Provides advanced techniques in electronic publishing design, layout, composition and paste-up. Pre-requisite: OST 225 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

OST 255(3)  Course ID: 004425
Introduction to Business Graphics
Provides instruction in the process of image-editing including how to create original artwork, manipulate color, enhance artwork, graphics and retouch photographs and clipart used in desktop publishing programs. Pre-requisite: OST 105 or OST 225 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

OST 272(3)  Course ID: 004511
Presentation Graphics
Uses industry standard software to create business presentations, business graphics, transparencies, and slides. Applies editing, formatting, page layout and design, and paste-up techniques for clarity and impact. Pre-requisite: OST 105. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

OST 275(3)  Course ID: 003779
Office Management
Management principles and techniques and their applications to the modern business office are included. Emphasis is on systems and the role of managerial personnel. Lecture: 3 credits. Laboratory: 0 credits.
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

OST 275(1 - 3)  Course ID: 003780
Instructor Consent Required
Administrative Office Technology Internship
Provides the opportunity to apply acquired occupational skills in a realistic setting, enhancing the transition from school to work. Requires approval of the instructor. Prerequisite: (OST 210, OST 215, and OST 240) or consent of instructor. Laboratory: 1.0 - 3.0 credits (45-135 contact hours).
Components: Laboratory
Attributes: Technical

OST 280(3)  Course ID: 004505
Instructor Consent Required
Office Systems Technology Internship II
Enhances transition from school to work by providing non-paid work experience which utilizes the skills required to achieve occupational goal. Pre-requisite: Consent of Program Adviser. Practicum: 3 credits (135 contact hours).
Components: Practicum
Attributes: Technical

OST 311(1)  Course ID: 016303
Word Processing Functions
Provides basics of word processing including information processing cycle, using spell check, proofreading and keypad accuracy using industry standard software. Pre-requisite: RDG 020 or Consent of Instructor (OST 101 equivalent skills). Lecture: 1 credit (15 contact hours).
Components: Lecture

OST 310(2-6)  Course ID: 016304
Document Letters Memoranda
Provides experience in word processing for keying letters and memoranda using industry standard software. Pre-requisite: OST 1101 or Consent of Instructor. Lecture: 1 credit (15 contact hours).

OST 1103(1)  Course ID: 016305
Document Tables and Reports
Provides experience in word processing for keying tables and reports from reference materials using industry standard software. Pre-requisite: OST 1102 or Consent of Instructor. Lecture: 1 credit (15 contact hours).

OST 2101(1)  Course ID: 016306
Advanced Formatting and Tools
Uses advanced formatting features and Word Processing tools of a current word processing software. Pre-requisite: OST 110. Lecture: 1 credit (15 contact hours).

OST 2102(1)  Course ID: 016307
Print and File Management
Uses advanced features of a current word processing software to manage file management, printing, and editing. Pre-requisite: OST 2101 or Consent of Instructor. Lecture 1 credit (15 contact hours).

OST 2251(1)  Course ID: 016309
Desktop Publishing Software
Uses desktop publishing software to design and produce high resolution publications such as flyers, brochures, business forms, and newsletters. Introduces basic design techniques, type and graphics layout, and related terminology. Pre-requisite: (OST 105 and OST 110) or Consent of Instructor. Lecture: 1 credit (15 contact hours).

OST 2225(1)  Course ID: 016310
Desktop Publishing Design and Features
Uses desktop publishing software to design and produce high resolution publications such as flyers, brochures, business forms, and newsletters. Introduces basic design techniques, type and graphics layout, and related terminology. Pre-requisite: OST 2251 or Consent of Instructor. Lecture: 1 credit (15 contact hours).

OST 2751(0.5)  Course ID: 005806
Office Management Principles
Includes introductory management principles and techniques for the modern business office. Lecture: 0.5 credits (7.5 contact hours).

OST 2752(1)  Course ID: 005807
Managing Human Resources in the Office
Includes management principles and techniques and their application to the management of human resources in the modern business office. Pre-requisite: OST 2751. Lecture: 1 credit (15 contact hours).

OST 2753(0.5)  Course ID: 005808
Managing Office Administrative Services
Management principles and techniques for the modern business office as they apply to the development of an information system and the management of physical resources are included. Pre-requisite: OST 2751. Lecture: 0.5 credit (7.5 contact hours).

Components: Lecture
Explores assistive technology to facilitate knowledge in a justification of payment for equipment, discharge, and presentations various methods of documentation used in occupational therapy. Develops communication skills necessary for level II fieldwork and to work as entry-level occupational therapy assistant. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (60 contact hours).

Components: Lecture Attributes: Technical

OTA 126(1) Course ID: 006670
Level IA Fieldwork
Provides the opportunity to observe and participate in various settings appropriate to occupational therapy service but not necessarily within a therapy department or under an occupational therapy professional. Provides opportunities to develop entry-level skills in the occupational therapy process with hands-on interaction as appropriate. Encourages development of professional behaviors and effective communication skills. Pre-requisite: Admission to OTA program and permission of instructor. Clinical: 1.0 credit (60 contact hours).

Components: Clinical Attributes: Technical

OTA 136(4) Course ID: 006871
Physical Dysfunction
Includes study of physical conditions commonly seen by Occupational Therapy, including diagnoses, instruction on treatment, and application of treatment. Introduces practice models to guide treatment applications, including procedures for multiple conditions in physical dysfunction. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 4.0 credits (120 contact hours).

Components: Lecture Attributes: Technical

OTA 146(2) Course ID: 006672
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: 006673
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 216(2) Course ID: 006684
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 activity analysis, functional mobility, therapeutic crafts, and modalities. Pre-requisite: Admission to OTA program and permission of instructor. Lab: 2.0 credits (90 contact hours).

Components: Laboratory Attributes: Technical

OTA 225(2) Course ID: 006685
Skills and Interventions II
Incorporates analysis, instruction and implementation of occupational therapy treatment techniques. Provides opportunities to apply theoretical concepts in practice situations, involving higher-level activities of daily living, comprehensive analysis, purposeful activity, modalities and neurocognitive re-education. Applies implementation skills necessary for level II fieldwork and to work as entry-level occupational therapy assistant. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (60 contact hours).

Components: Lecture Attributes: Technical

OTA 226(5) Course ID: 006678
Level IIA Fieldwork
Provides opportunity to function in various clinical settings under supervision of experienced occupational therapy practitioners. Provides collaboration with the Occupational Therapist in planning/implementing 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. Pre-requisite: Admission to OTA program and permission of instructor. Practicum: 5.0 credits (300 contact hours).

Components: Practicum Attributes: Technical
OTA 267(5) Course ID: 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 final of two successive fieldwork rotations in unique healthcare settings/institutions. Pre-requisite: Admission to the Occupational Therapy Assistant Program or permission of instructor. Practicum: 5.0 credits (300 contact hours).
Components: Practicum
Attributes: Technical

OTA 276(5) Course ID: 006879
Level IIB Fieldwork
Provides opportunity to function in various clinical settings under supervision of experienced occupational therapy practitioner. Promotes collaboration with the Occupational Therapist in planning/implementation of treatment programs with clients with a variety of diagnoses and ages. Strengthens complex skills, including critical thinking, required for entry-level of practice through the final of two successive fieldwork rotations in unique healthcare settings/institutions. Pre-requisite: Admission to the Occupational Therapy Assistant Program or permission of instructor. Practicum: 5.0 credits (300 contact hours).
Components: Practicum
Attributes: Technical

OTA 277(5) Course ID: 007411
Level IIB Fieldwork
Provides opportunity to function in various clinical settings under supervision of experienced occupational therapy practitioner. Promotes collaboration with the Occupational Therapist in planning/implementation of treatment programs with clients with a variety of diagnoses and ages. Strengthens complex skills, including critical thinking, required for entry-level of practice through the final of two successive fieldwork rotations in unique healthcare settings/institutions. Pre-requisite: Admission to the Occupational Therapy Assistant Program or permission of instructor. Practicum: 5.0 credits (300 contact hours).
Components: Practicum
Attributes: Technical

OTA 286(2) Course ID: 006880
Clinical Seminar
Provides students an opportunity to share information from their clinical site with both the academic instructor and their classmates. Emphasizes application of information learned to other situations. Prepares students for National Board for Certification in Occupational Therapy (NBCOT) certification examination. Pre-requisite: Admission to OTA program and permission of instructor. Co-requisite: OTA 266 OR OTA 276. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

PGL 111(3) Course ID: 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 112(3) Course ID: 007051
Legal Systems and Terminology
Provides an overview of major principles and functions of the state and federal legal systems, introduces various legal fields for professional opportunities, presents legal vocabulary, gives an overview of different areas of law, and presents ethics. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading and writing OR completion of Transitional reading and writing courses. Co-requisite: PGL 111. Lecture: 3.0 credits (45 contact hour).
Components: Lecture
Attributes: Technical

PGL 113(3) Course ID: 007050
Legal Research
Introduces the basic sources of law and methods of legal research, including ethics. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading and writing OR completion of Transitional reading and writing courses. Co-requisite: PGL 111. Lecture: 3.0 credits (45 contact hour).
Components: Lecture
Attributes: Technical

PGL 121(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 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

PGL 234(3) Course ID: 007063
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

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 104(2) Course ID: 004160
Parenterals
A basic understanding of working with admixtures. Focuses on aseptic technique and basic sterile compounding. Lecture: 1.0 credits (15 contact hours). Laboratory: 1.0 credits (25 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

PHA 110(6) Course ID: 004159
Pharmacy Procedures and Skills
Introduces the field of pharmacy. Includes pharmacy technician responsibilities, legal requirements, safety issues, and basic skills of a pharmacy technician. Lecture: 4.0 credits (60 contact hours). Lab: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

PHA 125(2) Course ID: 004161
Pharmaceutical Calculations
Covers basic math review, percentage strengths, ratio and proportion, conversion between the apothecary and metric systems, and intravenous calculations. Focus is on equivalencies and calculation of drug dosages. Pre-requisite: MAT 065 or equivalent. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

PHA 136(3) Course ID: 001930
Pharmacology
Introduces the study of drugs and their effect on the human body. Emphasis is placed on the most commonly used drugs, their dosage and common side effects as well as adverse reactions that might occur. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

PHA 200(3) Course ID: 001931
Admixtures for IV Therapy
Provides a basic working knowledge for the pharmacy technician involved in the preparation of IV admixtures. Pre-requisite: (PHA 110 and PHA 136 and PHA 125) with a grade of C or greater. Co-requisite: PHA 205 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
PHB 205(1) Course ID: 001932
Admixture Preparations
Provides the opportunity to become proficient in the techniques of IV admixing and in the use of related equipment associated with sterile product preparation. Pre-requisite: PHB 110 and 136 with a grade of C or greater. Co-requisite: PHB 200 or Consent of Instructor. Lab: 1.0 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

PHB 210(6) Course ID: 001934
Drug Classifications
Provides a study of the principles and classifications, drug nomenclature, and dosage forms as related to conditions of the body. Pre-requisite: PHB 110 and 136 with a grade of C or greater. Co-requisite: PHB 205 or Consent of Instructor. Lecture: 6.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

PHB 250(1 - 8) Instructor Consent Required
Pharmacy Experience
Provides work experience in the pharmacy setting to enhance skills required to reach occupational goals for the pharmacy technician. Pre-requisite: Consent of Instructor. Clinical: 1.0 - 8.0 credits (60-480 contact hours).
Components: Clinical
Attributes: Technical

PHB 100(6) Phlebotomy
Prepares the student as an integral member of the health-care team and collect blood from patients/donors in hospitals, blood banks or clinics for analysis or other medical purposes. Includes standard precautions, record keeping, and therapeutic communication skills. Lecture: 6 credits (90 contact hours).
Components: Lecture
Attributes: Technical

PHB 120(6) Course ID: 003809
Fundamentals of Clinical Laboratory Phlebotomy
Fundamental techniques of areas of the clinical laboratory appropriate to the phlebotomist are introduced. Includes a study of medical ethics, laboratory terminology, anatomy and physiology of the circulatory system, professional organizations, communication, record keeping, specimen collection, chain of custody, laboratory safety, and quality control. Lecture: 3 hours; Laboratory: 9 hours. Pre-requisite: CPR Certification, Malpractice insurance, Hepatitis, Varicella, PPD, Rubeola, and Rubella blood work results.
Components: Laboratory, Lecture
Attributes: Technical

PHB 151(1) Phlebotomy for the Health Care Worker Instructor Consent Required
Course 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. Pre-requisite: Permission of the instructor. Lecture/Lab: 1.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

PHB 152(1) Phlebotomy: Clinical Experience
Introduces the student to clinical practice in the phlebotomy department of a laboratory. The student will begin to develop performance skills in routine venipuncture and capillary collection procedures emphasizing performance skills in routine venipuncture and capillary collection procedures. Pre-requisite or Co-requisite: PHB 151, PHB 170 or MAI 120. Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Technical

PHB 153(4) Course ID: 004479
Advanced Topics in Phlebotomy
Prepares the student as an integral member of the health-care team. One who collects blood from patients/donors in hospitals, blood banks or clinics for analysis or other medical purposes. Practices standard precautions, record keeping, vital signs and therapeutic communication skills. Pre-requisite: PHB 151 Phlebotomy for the Healthcare Worker. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

PHB 155(2 - 3) Course ID: 001939
Phlebotomy Clinical
This course is designed to build on the knowledge acquired in phlebotomy lecture and lab. In this course the student will use external institutions for clinical experience to become more proficient in the performance of routine venipuncture and dermal collections. The student will gain the experience needed to handle routine venipuncture complications and the skills necessary to adequately perform the duties of a phlebotomist. Pre-requisite: PHB 151 Phlebotomy for the Healthcare Professional or PHB 100 Phlebotomy. Lab: 2.0 - 3.0 credits (120 - 180 contact hours).
Components: Laboratory
Attributes: Technical

PHB 170(3) Applied Phlebotomy
Teaches proper techniques in venipuncture and capillary collection. Includes a study of medical ethics, laboratory terminology, anatomy and physiology of the circulatory system, communication and record keeping, specimen processing, laboratory safety, isolation procedures, special collection procedures, donor collection, specimen processing for the various laboratory departments, venipuncture complications, and quality assurance. Pre-requisite: Permission of the CLT Program Coordinator. Co-requisite: PHB 152. Lecture: 2.0 credits (30 contact hours); Lab: 1.0 credit (30 contact hours).
Components: Lecture
Attributes: 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
Attributes: AH - Arts and Humanities

PHI 110(3) Course ID: 002202
Medical Ethics
Introduces examination and application of major ethical theories to specific moral questions related to health care. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

PHI 120(3) Course ID: 003356
Introductory Logic
Covers argumentation, syllogistic and sentential logic. Focuses on the use of formal methods in the construction and criticism of arguments, the aim being to inculcate standards of good reasoning, e.g., clarity, consistency, and validity. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

PHI 130(3) Course ID: 003054
Ethics
Introduces students to a critical examination of philosophical principles related to moral action and political values. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

PHI 140(3) Course ID: 005139
The Ethics of War and Peace
Ethical reasoning and application of ethical theories to moral issues connected to war and peace. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

PHI 150(3) Course ID: 000359
Business Ethics
Presents ethical theories and techniques of moral reasoning used to analyze moral issues in business. Applies ethics and reasoning to current issues of management, employees, government, public safety, and the environment. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

PHI 260(3) Course ID: 000698
History of Philosophy: From Greek Beginnings to the Middle Ages
Provides an introductory study of the development of Western philosophy from ancient through late medieval times, including the development of fields such as logic, metaphysics, epistemology, and ethics. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

PHI 270(3) Course ID: 000497
History of Philosophy II: From the Renaissance to the Present Era
Provides an introductory study of the development of Western philosophy from early modern through contemporary times, including the development of fields such as metaphysics, analytic and continental philosophy, and ethics. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

PHI 299(3) Course ID: 006969
Special Topics in Philosophy: Topic
Examines special topics in philosophy. Includes, but not limited to, individual philosophers, movements, writings, traditions, and selected eras. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other

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: MT 125. Lecture: 6 credits (150 contact hours).
Components: Lecture
Attributes: Other
PHX 150(3) Course ID: 001944
Introductory Physics
A non-calculus approach to the concepts and applications of the physical principles of force, work, rate, resistance, energy, power, force transformers and gas laws is presented in this course. Students are shown by examples, classroom demonstration, and laboratory experiments how these concepts are applied to the translational and rotational mechanical, fluidal, electrical and thermal energy systems. Problem solving techniques and scientific method are stressed throughout this course. Pre-requisite: MT 115 or MT 125. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

PHY 151(3) Course ID: 000840
Introductory Physics I
Focuses on the conceptual principles of mechanics of solids, liquids, gases, heat, and sound using some algebra. Credit is not given to students who already have credit for PHY 201 or PHY 231. Companion lecture to PHY 161 laboratory. Pre-requisite: KCTCS placement in College Algebra or completion of Intermediate Algebra. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

PHY 152(3) Course ID: 000402
Introductory Physics II
Focuses on the conceptual principles of electricity, magnetism, optics, atomic, and nuclear physics using some algebra. Credit is not given to students who already have credit for PHY 203 or PHY 232. Companion lecture to PHY 162 laboratory. Pre-requisite: KCTCS placement in College Algebra or completion of Intermediate Algebra. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

PHY 160(3) Course ID: 000436
Physics and Astronomy for Elementary Teachers
Addresses basic concepts of astronomy and physics appropriate for elementary teachers and is taught with an emphasis on inquiry-based, laboratory activities. Topics include the basics of the motion of objects, astronomy by sight, electrical circuits, magnetism and the behavior of light. Companion course to GLY 160. Pre-requisite: GLY 160. Lecture: 1 credit hour (15 contact hours). Lab: 2 credit hours (75 contact hours).
Components: Laboratory, Lecture
Attributes: SN - Science

PHY 161(1) Course ID: 000471
Introductory Physics I Laboratory
Investigates concepts introduced in PHY 151 through experiments in classical mechanics and thermal physics. Pre-requisite or concurrent: PHY 151. Lab: 1 credit hour (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

PHY 162(1) Course ID: 000475
Introductory Physics II Laboratory
Investigates concepts introduced in PHY 152 through experiments in electricity, magnetism, light, atoms, and nuclei. Pre-requisite or concurrent: PHY 152. Laboratory: 1 credit hour (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

PHY 171(4) Course ID: 000156
Applied Physics
Surveys mechanics, heat, sound, electricity, magnetism, light, and modern physics as applied to practical systems. Pre-requisite: (MAT 085 or (MAT 116 or greater) or Equivalent math placement score) or consent of instructor. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credits (30 contact hours).
Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science, Course Also Offered in Modules
PHV 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

PHV 1718(0.5) Course ID: 006116
Integrated Physics Concepts
Surveys selected topics in applied physics. Pre-requisite: PHY 1717 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

PHYS 105(3) Course ID: 005599
Concepts of the Physical World
A one-semester introduction to the concepts of physics for students planning to teach in elementary and middle schools. Topics include structure and properties of matter, mechanics, electricity, magnetism, heat, light and sound. Laboratory experiments are an integral part of this course. Pre-requisite: MT 120 or greater. Lecture: 3 credits (45 contact hours).
Components: Lecture

PL Plastics

PL 101(4) Course ID: 001959
Plastic Processes and Materials
Provides an introduction to plastics processing and terminology. Topics covered include polymer chemistry, polymer processing, thermoplastics, properties of plastics, plastics manufacturing processes, manufacturing equipment, tooling and molds, and health, safety and business considerations in the commercial production of plastic products. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Technical

PL 151(4) Course ID: 001960
Polymer Science & Testing
Provides an in-depth study of various plastics and important processing methods. Examines molecular structures and their effect on mechanical, chemical and physical properties. Includes commodity and engineering thermoplastics, thermosets and elastomers, extrusion, injection, blow molding and thermoforming. 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 105(3) Course ID: 004326
Plumbing Principles
Provides the proper installation procedures for piping, water heaters and sewage systems. The plumbing codes appropriate for each installation will also be studied. Laboratory: 3 credits (135 contact hours).
Components: Laboratory

PLB 150(3) Course ID: 001945
Plumbing, Introduction to the Trade
Introduces the origin and basic principles of the plumbing industry. Includes the orientation of methods associated with the plumbing industry. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

PLB 151(3) Course ID: 001946
Basic Plumbing Skills
This course introduces the student to basic pipe joining techniques. Co-requisite: PLB 150. Laboratory: 3 credits (135 contact hours).
Components: Laboratory
Attributes: Technical

PLB 163(2) Course ID: 001949
Plumbing Fixtures
Develops the skills necessary to rough-in and install a kitchen group and laundry fixtures for residential and commercial applications. Pre-requisite: PLB 150. Co-requisite: PLB 250. Laboratory: 2 credits (30 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 apparatuses. Pre-requisite: PLB 150. Corequisite: PLB 250. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

PLB 260(2) Course ID: 001953
Service
This course presents the study of methods, procedures, and skills involved in planning and estimating residential and commercial plumbing fixtures and systems. Pre-requisite: PLB 150 or equivalent. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical

PLB 261(2) Course ID: 001954
Advanced Plumbing Lab
This course will teach the student to plan and apply local code requirements for residential plumbing systems, and estimate supplies and cost of same. Pre-requisite: PLB 150 or equivalent. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

PLB 262(3) Course ID: 001955
Backflow Prevention
This course teaches the student how to protect portable water systems from the hazards of backflow. Pre-requisite: Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

PLB 270(3) Course ID: 001956
License Preparation for Journeyman Exam
Provides a study of Kentucky Code in preparation for the Journeyman Exam. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

PLB 298(4) Course ID: 004251
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

PLW Project Lead The Way

PLW 100(4) Course ID: 006695
Introduction to Engineering Design
Provides an introduction to the engineering profession, engineering disciplines, and technology. Emphasizes a “problem-solving” approach, engineering design process, and team projects. Lecture/Lab: 4 credits (150 contact hours).
Components: Lecture
Attributes: Technical

PLW 125(4) Course ID: 006696
Principles of Engineering
Students will be introduced to various types of engineering, engineering communications, various design processes, types of engineering systems, statics, materials, and strength of materials, engineering for reliability, and kinematics. Pre-requisite: PLW 100. Lecture/Lab: 4 credits (150 contact hours).
Components: Lecture
Attributes: Technical

PLW 130(4) Course ID: 007197
Principles of Biomedical Sciences
Engages students in the ethics of human medicine, research processes and an introduction to bioinformatics. Exposes students to investigations of human body systems and various health conditions including heart disease, diabetes, sickle-cell disease, hypercholesterolemia, and infectious diseases. Includes analysis of key biological concepts including: homeostasis, metabolism, inheritance of traits, feedback systems, the relationship of structure to function and defense against disease. Outlines all the courses in the Biomedical Sciences program and to lay the scientific foundation necessary for student success in the subsequent courses. Pre-requisite: Reading, English, and Mathematics assessment exam scores above the KCTCS transitional placement level or successful completion of the prescribed transitional course(s). Lecture/Lab: 4.0 credits (150 contact hours).
Components: Lecture
Attributes: Technical

PLW 135(4) Course ID: 007281
Principles of Human Body Systems
Emphasizes the study of human body systems investigating identity, communication, power, movement, protection, and homeostasis. Uses experiments that investigate the structures and functions of the human body and uses data acquisition software to monitor body functions. Explores science in action as students build organs and tissues on a skeletal model, work through real-world cases, and role-play biomedical professionals to solve medical mysteries. Pre-requisite: PLW 130. Lecture/Lab: 4.0 credits (150 contact hours).
Components: Lecture

PLW 140(4) Course ID: 015805
Medical Interventions
Focuses on exploring a variety of interventions involved in the prevention, diagnosis and treatment of disease. Uses a How-To manual to introduce prevention of and fighting of infection; how to screen and evaluate the code in human DNA; how to prevent, diagnose and treat cancer; and how to prevail when the organs of the body begin to fail. Examines lifestyle choices and preventive measures that influence health and highlights the important roles scientific thinking and engineering design play in the development of interventions of the future are examined. Pre-requisite: PLW 135. Lecture: 4.0 credits (150 contact hours).
Components: Lecture
Attributes: Technical

PLW 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
Attributes: Technical
Course Descriptions

PLW 200(4) Course ID: 006698
Aerospace Engineering
The major focus of the Aerospace Engineering TM (AE) course is to expose students to the world of aeronautics, flight, and engineering. They will employ engineering and scientific concepts in the solution of aerospace problems. Pre-requisite: PLW-100, PLW-125, and PLW-150. Lecture/ Lab: 4 credits (150 contact hours).
Components: Lecture

PLW 225(4) Course ID: 006699
Civil Engineering and Architecture
The major focus of the Civil Engineering and Architecture TM (CEA) course is a long-term project that involves the development of a local property site. As students learn about various aspects of civil engineering and architecture, they apply what they learn to the design and development of this property. Pre-requisite: PLW-100, PLW-125, and PLW-150. Lecture/ Lab: 4 credits (150 contact hours).
Components: Lecture
Attributes: Technical

PLW 250(4) Course ID: 006700
Computer Integrated Manufacturing
The purpose of the Computer Integrated Manufacturing course is to expose students to the fundamentals of computerized manufacturing technology. The course includes: Computer Modeling, CNC Equipment; CAM Software; Robotics; and Flexible Manufacturing Systems. Pre-requisite: PLW-100, PLW-125, and PLW-150. Lecture/ Lab: 4 credits (150 contact hours).
Components: Lecture

PLW 295(4) Course ID: 006701
Engineering Design and Development
Engineering student teams research, design, and construct a solution to a open-ended engineering problem using product development lifecycle and the design process; presentation to defend solutions to a panel of outside reviewers. Pre-requisite: PLW 150 AND one of the following: PLW 200, OR PLW 225, OR PLW 250, OR Consent of the APC and/or Instructor. Lecture/ Lab: 4 credits (150 contact hours).
Components: Lecture

PMX 100(3) Course ID: 001962
Power Mechanics/Measurement
This class introduces the student to the basic fundamentals of precision measurement and its application in the industrial setting. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

POL 101(3) Course ID: 000912
American Government
Examines national and the political process in the United States, with emphasis on the Constitution, the President, Congress, and the judicial system. Focuses on the nature of American democracy, political challenges, and opportunities. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science

POL 210(3) Course ID: 000630
Introduction to European Politics: East and West
Compares the political institutions, policy-making processes, citizen participation and political outcomes in Eastern and Western European states. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science

POL 212(3) Course ID: 002254
Culture and Politics in Developing Nations
Examines and compares the politics of selected states in Africa, Asia, and Latin America analyzing such issues as culture, ethnicity, language, social class, and ideology. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: 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 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science

POL 255(3) Course ID: 000086
State Government
Examines the institutions, political processes, and policies of state governments, and the relationships of state governments with other levels of government in the United States. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science

POL 271(3) Course ID: 000724
Introduction to Political Behavior
The study of behavior in a political context; the analysis of basic behavioral concepts used in political science such as political roles, group behavior, beliefs systems, personality, power, and decision-making. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, Other

POL 280(3) Course ID: 005213
Issues in Public Policy
Examines selected major public issues, focusing on their nature, political ramifications, and 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

POL 291(1 - 3) Course ID: 004276
Special Topics in Political Science
Addresses various topics, issues, and trends in political science. Includes topics that may vary from semester to semester at the discretion of the instructors. Lecture: 1.0 - 3.0 credits (15 contact hours).
Components: Lecture

PSC 112(3) Course ID: 006850
Ceramics I
Introduces traditional clay forming skills, their development and use in the 21st century. Investigates hand building, wheel throwing, and decorative techniques. Lab: 3.0 credits (90 contact hours).
Components: Laboratory

PSC 115(3) Course ID: 006851
Ceramics II
Investigates and improves ceramic techniques in wheel throwing, basic glaze applications, surface decoration, and traditional firings. Develops and advances individual techniques and skills. Pre-requisite: PSC 112. Lab: 3.0 credits (90 contact hours).
Components: Laboratory

PSC 117(3) Course ID: 006852
Glaze Calculations
Examines glaze calculation, technology and the raw ceramic materials used to create glazes for ceramics art and production. Lab: 3.0 credits (90 contact hours).
Components: Laboratory

PSC 210(3) Course ID: 006853
Ceramics III
Investigates Ceramics construction techniques, glazing, surface decoration and firing. Continues to develop practice and execution of individual’s aesthetic and functional creativities. Lab: 3.0 credits (90 contact hours).
Components: Laboratory

PSC 211(3) Course ID: 006854
Klin Operation and Design
Introduces various types of kilns and firing operations. Investigates Raku, pit and downdraft gas kiln designs. Lab: 3.0 credits (90 contact hours).
Components: Laboratory

PSC 212(3) Course ID: 006855
Ceramic Production Techniques
Examines properties and characteristics of slip casting and mold-making techniques. Emphasizes the science of both traditional and non-traditional ceramics materials and its practical application for the professional ceramics production. Lab: 3.0 credits (90 contact hours).
Components: Laboratory

PSC 215(3) Course ID: 006856
Ceramics IV
Examines production studio pottery and advanced contemporary ceramics through refinement of construction techniques, expanding glaze pallets, and advanced surface decorations and glaze firing. Pre-requisite: PSC 210. Lab: 3.0 credits (90 contact hours).
Components: Laboratory

PSC 220(3) Course ID: 006857
Ceramics Product Development
Explores product development and the business concerns of professional ceramics production. Lab: 3.0 credits (90 contact hours).
Components: Laboratory

PSC 230(3) Course ID: 006858
Ceramics V
Focuses on creating a body of work for exhibition and developing a professional portfolio. Pre-requisite: PSC 215. Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

PSG 100(2) Course ID: 005275
Introduction to Polysomnography
Introduces the topics of behavioral and performance objectives, national patient safety goals, medical ethics, infection control, environmental and clinical emergencies, HIPPA, basic medical terminology and skills required for employment. Pre-requisite: Minimum grade of a C in [BIO 137 and (MAT 110 or MAT 146 or MAT 150)] or consent of the instructor. Lecture: 2.0 credit (30 contact hours).
Components: Lecture
Attributes: Technical

PSG 110(3) Course ID: 005276
Polysomnography Level I
Provides the knowledge necessary for entry-level personnel in the basics of polysomnographic technology. Includes instrumentation setup and calibration, recording and monitoring techniques, therapeutic interventions and patient-technologist interactions related to polysomnography. Lecture: 3 credits (45 contact hours). Pre-requisite: (BIO 137 and (MT 110 or MT 145 or MT 150)) with a grade of C or better) or consent of the instructor. Lecture: 2.0 credit (30 contact hours).
Components: Lecture
Attributes: Technical

PSG 111(1) Course ID: 005277
Polysomnography Lab I
Provides practical experience on the equipment used during a standard sleep study. The set-up, calibration, attachment, artifact recognition and troubleshooting of electroencephalographic (EEG), electro-cardiographic (ECG), electromyographic (EMG), pulse oximetry (SpO2), body position, airflow, chest and abdominal movement detection equipment as well as the application of positive airway pressure and oxygen used in therapeutic interventions will be included. Laboratory exercises to develop effective patient-technologist interactions will also be included. Laboratory: 1 credit (60 contact hours). Pre-requisite: (BIO 137 and (MT 110 or MT 145 or MT 150) with a grade of C or better) or consent of the instructor. Components: Laboratory
Attributes: Technical
PSJ 110(3) Course ID: 005067
Jewelry/Metals I
Introduces the tools, techniques, and materials of the professional jeweler/metal smith with an emphasis on the design and production of jewelry projects in precious metals, the basic development of jewelry bench skills, and the discussion of business practices. Laboratory: 3.0 credits (90 contact hours).

Components: Laboratory Attributes: Technical

PSJ 115(3) Course ID: 005068
Jewelry/Metals II
Continues PSJ 110 and a further introduction to the tools, techniques, and materials of the professional jeweler/metal smith. Emphasizes working more 3-dimensionally and with greater complexity through the design and completion of jewelry projects. Pre-requisite: PSJ 110 or Consent of Instructor. Lab: 3.0 credits (90 contact hours).

Components: Laboratory Attributes: Technical

PSG 118(3) Course ID: 005069
Ancient Techniques
Introduces the history, methods and techniques of metalsmithing from antiquity through the 14th century. Emphasizes metalsmithing traditions and classic techniques through the design and completion of jewelry projects and assignments incorporating ancient methods. Pre-requisite: PSG 110 or Consent of Instructor. Lab: 3.0 credits (90 contact hours).

Components: Laboratory Attributes: Technical

PSJ 117(2) Course ID: 005070
Metal Casting/Finishing Techniques
Provides the intermediate level jewelry/metal smithing student with experiences in the design, modeling, and studio production of three-dimensional objects by the direct melt and waste mold methods of casting precious metal. Pre-requisite: PSJ 110 or Consent of Instructor. Lab: 2.0 credits (60 contact hours).

Components: Laboratory Attributes: Technical

PSJ 210(3) Course ID: 005071
Jewelry/Metals III
Provides an in-depth investigation into tools, techniques, and materials of the professional jeweler/metal smith 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
Hollowware and Metal Forming
Covers design and technical processes creating functional hollowware. Emphasizes dimensional forming of sheet metal through raising, sinking, planishing and anticlastic forming. Pre-requisite: PSJ 115 or Consent of Instructor. Lab: 3.0 credits (90 contact hours).

Components: Laboratory

PSJ 212(2) Course ID: 005073
Metallurgy of Precious Metals
Covers properties and characteristics of precious metals and their alloys. Emphasizes the science of metallurgy and its practical application for the professional jeweler/metalsmith. Pre-requisite: (PSJ 115 and PSJ 116) or Consent of Instructor. Lab: 2.0 credits (60 contact hours).

Components: Laboratory

PSJ 215(3) Course ID: 005074
Jewelry/Metals IV
Includes an in-depth investigation on production methods and techniques of the professional jeweler/metalsmith. Pre-requisite: (PSJ 210 and PSJ 212) or Consent of Instructor. Lab: 3.0 credits (90 contact hours).

Components: Laboratory

PSJ 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

PSG 130(3) Course ID: 005279
Polysomnography Level II
Addresses all of the aspects of sleep scoring and event recognition, instrumentation setup and calibration, recording and monitoring techniques, documentation, professional issues, therapeutic interventions, and patient-technologist interactions related to polysomnography. Pre-requisite: PSG 110 with a grade of C or better, or consent of the instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

PSG 131(1) Course ID: 005280
Polysomnography Lab II
Provides laboratory training in advanced aspects of polysomnographic technology. Students will become familiar with the skills and apply the knowledge needed to evaluate sleep recordings. It covers sleep stage scoring, event recognition, report generation, and higher level therapeutic interventions. Includes procedure and scoring for specialized testing such as the multiple sleep latency test (MSLT) and maintenance of wakefulness test (MWT). Laboratory: 1 credit (60 contact hours). Pre-requisite: PSG 111 with a grade of C or better, or consent of the instructor.

Components: Laboratory Attributes: Technical

PSG 133(3) Course ID: 007064
Pathologies of Sleep and Related Disorders
Develops knowledge of pathophysiology of sleep disorders as well as the effect of co-morbidities on sleep. Presents content on pathologies and related applications for various age groups to include pharmacology, medical emergency recognition and treatment. Pre-requisite: PSG 110 with a grade of C or better or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

PSJ 115(3) Course ID: 005068
Jewelry/Metals II
Continues PSJ 110 and a further introduction to the tools, techniques, and materials of the professional jeweler/metal smith. Emphasizes working more 3-dimensionally and with greater complexity through the design and completion of jewelry projects. Pre-requisite: PSJ 110 or Consent of Instructor. Lab: 3.0 credits (90 contact hours).

Components: Laboratory Attributes: Technical

PSJ 116(2) Course ID: 005069
Ancient Techniques
Introduces the history, methods and techniques of metalsmithing from antiquity through the 14th century. Emphasizes metalsmithing traditions and classic techniques through the design and completion of jewelry projects and assignments incorporating ancient methods. Pre-requisite: PSJ 110 or Consent of Instructor. Lab: 3.0 credits (90 contact hours).

Components: Laboratory Attributes: Technical

PSJ 211(3) Course ID: 005072
Hollowware and Metal Forming
Covers design and technical processes creating functional hollowware. Emphasizes dimensional forming of sheet metal through raising, sinking, planishing and anticlastic forming. Pre-requisite: (PSJ 115 and PSJ 117) or Consent of Instructor. Lab: 3.0 credits (90 contact hours).

Components: Laboratory

PSJ 212(2) Course ID: 005073
Metallurgy of Precious Metals
Covers properties and characteristics of precious metals and their alloys. Emphasizes the science of metallurgy and its practical application for the professional jeweler/metalsmith. Pre-requisite: (PSJ 115 and PSJ 116) or Consent of Instructor. Lab: 2.0 credits (60 contact hours).

Components: Laboratory

PSJ 215(3) Course ID: 005074
Jewelry/Metals IV
Includes an in-depth investigation on production methods and techniques of the professional jeweler/metalsmith. Pre-requisite: (PSJ 210 and PSJ 212) or Consent of Instructor. Lab: 3.0 credits (90 contact hours).

Components: Laboratory

PSJ 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

PSG 115(3) Course ID: 005068
Jewelry/Metals II
Continues PSJ 110 and a further introduction to the tools, techniques, and materials of the professional jeweler/metal smith. Emphasizes working more 3-dimensionally and with greater complexity through the design and completion of jewelry projects. Pre-requisite: PSJ 110 or Consent of Instructor. Lab: 3.0 credits (90 contact hours).

Components: Laboratory Attributes: Technical

PSJ 116(2) Course ID: 005069
Ancient Techniques
Introduces the history, methods and techniques of metalsmithing from antiquity through the 14th century. Emphasizes metalsmithing traditions and classic techniques through the design and completion of jewelry projects and assignments incorporating ancient methods. Pre-requisite: PSJ 110 or Consent of Instructor. Lab: 3.0 credits (90 contact hours).

Components: Laboratory Attributes: Technical

PSJ 211(3) Course ID: 005072
Hollowware and Metal Forming
Covers design and technical processes creating functional hollowware. Emphasizes dimensional forming of sheet metal through raising, sinking, planishing and anticlastic forming. Pre-requisite: (PSJ 115 and PSJ 117) or Consent of Instructor. Lab: 3.0 credits (90 contact hours).

Components: Laboratory

PSJ 212(2) Course ID: 005073
Metallurgy of Precious Metals
Covers properties and characteristics of precious metals and their alloys. Emphasizes the science of metallurgy and its practical application for the professional jeweler/metalsmith. Pre-requisite: (PSJ 115 and PSJ 116) or Consent of Instructor. Lab: 2.0 credits (60 contact hours).

Components: Laboratory

PSJ 215(3) Course ID: 005074
Jewelry/Metals IV
Includes an in-depth investigation on production methods and techniques of the professional jeweler/metalsmith. Pre-requisite: (PSJ 210 and PSJ 212) or Consent of Instructor. Lab: 3.0 credits (90 contact hours).

Components: Laboratory

PSJ 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
PSM 114(2)  Course ID: 007260  Bluegrass & Traditional Band/Ensemble  Pairs two or more instrumentalists in a group/ensemble setting, in order to explore the components and structure of a band under the guidance of a professional band leader. May be repeated with different subtitle for a maximum of 8 credits. Lab: 2.0 credits (60 contact hours).  Components: Laboratory  

PSM 115(2)  Course ID: 005555  Bluegrass & Traditional Band/Ensemble  Pairs two or more instrumentalists in a group/ensemble setting, in order to explore the components and structure of a band under the guidance of a professional band leader. May be repeated with different subtitle for a maximum of 8 credits. Lab: 2.0 credits (60 contact hours).  Components: Laboratory  Attributes: Technical

PSM 116(2)  Course ID: 005528  Bluegrass & Traditional Harmony/Part Singing  Introduces basic bluegrass and traditional harmony/part singing and theory using ear training, number notation and basic chords. Pre-requisite: MUS 174 or Consent of Instructor. Lab: 2.0 credits (60 contact hours).  Components: Laboratory  

PSM 117(1)  Course ID: 007261  Songwriting II  Provides guidance through the process of creating and refining original melodies and lyrics under the direction of a professional songwriter, emphasizing different techniques while overcoming barriers. Pre-requisite: PSM 107 or Consent of Instructor. Lab: 1.0 credit (30 contact hours).  Components: Laboratory  

PSM 118(2)  Course ID: 007262  Bluegrass & Traditional Harmony/Part Singing  Introduces basic bluegrass and traditional harmony/part singing and theory using ear training, number notation and basic chords. Pre-requisite: MUS 174 or Consent of Instructor. Lab: 2.0 credits (60 contact hours).  Components: Laboratory  

PSM 121(3)  Course ID: 005557  Bluegrass & Traditional Music History II: Evolution of Old Time, Folk and Early Bluegrass  Provides an in-depth study of old time, folk and early bluegrass music genres and their 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  

PSM 128(1)  Course ID: 005559  Songwriting I  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 211(2)  Course ID: 007263  Songwriting III  Provides guidance through the process of creating and refining original melodies and lyrics under the direction of a professional songwriter, emphasizing writing for specific media and multi-writer collaboration. Pre-requisite: PSM 117 or Consent of Instructor. Lab: 2.0 credits (60 contact hours).  Components: Laboratory  

PSM 227(2)  Course ID: 007264  Songwriting IV  Provides guidance through the process of creating an effective demo and marketing original songs under the direction of a professional songwriter, emphasizing the completed demo project. Pre-requisite: PSM 217 or Consent of Instructor. Lab: 2.0 credits (60 contact hours).  Components: Laboratory  

PSM 231(3)  Course ID: 005580  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 bandstands. 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 1930 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 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 111(3)  Course ID: 005056  Introduction to Furniture Making  Introduces tools, techniques, and materials of the professional wood worker, focusing on actual studio production and design processes in wood and furniture. Lab: 3.0 credits (90 contact hours).  Components: Laboratory  Attributes: Technical  

PSW 115(3)  Course ID: 005057  Furniture Making II  Focuses on the application of complex joinery, design features, and finishing techniques to a given furniture project. Explores historical perspectives and business related topics. Pre-requisite: PSM 111 or Consent of Instructor. Lab: 3.0 credits (90 contact hours).  Components: Laboratory  Attributes: Technical  

PSW 116(2)  Course ID: 005058  Wood Finishing  Introduces wood finishing and fine furniture making. Pre-requisite: PSM 111 and PSW 115 or Consent of Instructor. Lab: 2.0 credits (60 contact hours).  Components: Laboratory  

PSW 117(3)  Course ID: 005059  Wood Turning for Furniture  Covers basic and advanced turning skills including spindle turning and faceplate work and tool sharpening and usage. Pre-requisite: PSM 111 or Consent of Instructor. Lab: 3.0 credits (90 contact hours).  Components: Laboratory  Attributes: Technical  

PSW 210(3)  Course ID: 005060  Furniture Making III  Focuses on complicated joinery techniques, machine tool operations, advanced finishing applications, and small business considerations. Pre-requisite: PSM 115 and PSW 116 or Consent of Instructor. Lab: 3.0 credits (90 contact hours).  Components: Laboratory  Attributes: Technical  

PSW 211(3)  Course ID: 005061  Wood Bending and veneering  Covers construction and design possibilities through techniques of strip lamination and steam bending to create curved shaped parts in furniture. Includes veneering design and applications. Pre-requisite: PSM 115 and PSW 116 or Consent of Instructor. Lab: 3.0 credits (90 contact hours).  Components: Laboratory  Attributes: Technical  

PSW 212(3)  Course ID: 005063  Chair Design  Focuses on design and construction for good seating requirements based on sound design and structural integrity. Pre-requisite: PSM 117 or Consent of Instructor. Pre-requisite or Co-requisite: PSW 211. Lab: 3.0 credits (90 contact hours).  Components: Laboratory  Attributes: Technical  

PSW 215(3)  Course ID: 005062  Furniture Making IV  Emphasizes special processes of design, production, and cost efficiencies associated with operating a custom furniture studio including marketing and overall business knowledge. Pre-requisite: (PSW 210 and PSW 212) or Consent of Instructor. Lab: 3.0 credits (90 contact hours).  Components: Laboratory  Attributes: Technical  

PSW 220(2)  Course ID: 005064  Furniture/Wood Product Development  Includes applications associated with design and construction possibilities with fabricated products. Focuses on C. N. C. machining and CAD design as well as 32-MM and KD (knock down) systems including architectural wood and cabinetry design. Pre-requisite: (PSW 210 and PSW 211) or Consent of Instructor. Lab: 2.0 credits (60 contact hours).  Components: Laboratory  Attributes: Technical  

PSW 230(6)  Course ID: 005065  Furniture Making V  Focuses on creating a body of work for exhibition and developing a professional portfolio. Pre-requisite: (PSW 212 and PSW 215 and PSW 220) or Consent of Instructor. Lab: 2.0 credits (180 contact hours).  Components: Laboratory  Attributes: Technical
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: ACT, COMPASS, or ASSET scores for college level reading OR completion of Transitional reading course(s). Components: Lecture Attributes: SB - Social Behavior Science, Course Also Offered in Modules

PSY 180(3)  Course ID: 000151  Human Relations  Explores the sociological and psychological forces that affect interpersonal relationships as individuals work and live together. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading or completion of Transitional reading course(s). Components: Lecture Attributes: SB - Social Behavior Science

PSY 181(1)  Course ID: 000312  Leadership Development  Prepares student leaders to lead small peer groups. Emphasizes study skills, oral/written communication skills, various tutoring techniques, and leadership skills. Pre-requisite: ACT, COMPASS, or ASSET scores for college reading and writing or completion of Transitional reading course(s); GEN 100 and/or consent of instructor. Laboratory: 1.0 credit (30 contact hours).

Components: Laboratory Attributes: Other

PSY 185(3)  Course ID: 000602  Human Potential  Introduces the principles of relating to self and others and focuses upon self-growth. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: SB - Social Behavior Science

PSY 186(1)  Course ID: 000604  Directed Undergraduate Reading in Psychology  Explores in-depth a specific topic related to the student's personal or career interests in psychology under the direction of a faculty member. Requires development of a psychology literature review. Research 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 195(1)  Course ID: 005749  Orientation to Psychology  Orients students who plan to major in psychology at a four-year institution to the educational issues and potential career and employment options. Discusses career paths and employment opportunities, professional resources and issues, and educational planning. Pre-requisite: Declared major in Psychology, or consent of instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture 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: Lecture Attributes: Other

PSY 213(1)  Course ID: 002255  Research Methods  Applies scientific methods to psychological research. Provides practical experience in designing and executing a research project using observational, survey, and/or true experimental design methodologies. Requires application of descriptive and inferential statistics and written report of research project results. Pre-requisite: PSY 110. Lecture/Lab: 4.0 credits (75 contact hours).

Components: Lecture Attributes: Other

PSY 223(3)  Course ID: 000488  Developmental Psychology  Introduces the principles of developmental psychology as seen in human growth over the entire lifespan, focusing primarily on infancy through adolescence. Emphasizes theory and data relating to developmental aspects of cognition, language, and personality. Lecture: 3 credits (45 contact hours). Pre-requisite: PSY 100 or PSY 110.

Components: Lecture Attributes: Other

PSY 230(3)  Course ID: 000387  Psychosocial Aspects of Death and Dying  Examines the biophysical, psychological, sociological, and cultural aspects of death and dying in the evolving global world. Examines 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: SB - Social Behavior Science, Course Also Offered in Modules

PSY 298(3)  Course ID: 004818  Psychology of Aging  Provides an overview of the demographics of aging, theories of aging and research methods used to study adult development. Examines the biological, psychological and social impact of aging, longevity work, retirement, death and bereavement. Pre-requisite: PSY 110 or consent of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Cultural Studies, SB - Social Behavior Science

PSY 299(1 - 3)  Course ID: 000534  Special Introductory Topics in Psychology  Introduces specialized topics in the field of psychology to meet current trends and investigations of contemporary issues in the discipline. May be repeated to a maximum of six credits under different subtitles. Pre-requisite: PSY 110 or consent of instructor. Lecture: 1.0 - 3.0 credits (15 - 45 contact hours).

Components: Lecture Attributes: Other

PSY 101(0.6)  Course ID: 006215  Foundations of Psychology  Introduces the history, methods, and content of modern psychology to include the systems of psychology, psychological research, and physiological psychology. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading OR completion of Transitional reading course(s). Lecture: 0.6 credits (9.0 contact hours).

Components: Lecture

PSY 102(0.6)  Course ID: 006216  Senses, Perception and Emotion  Addresses the history, methods, and content of modern psychology to include physiological psychology and psychological processes. Pre-requisite: PSY 1101. Lecture: 0.6 credit (9.0 contact hours).

Components: Lecture

PSY 1103(0.6)  Course ID: 006217  Learning, Memory, Intelligence  Addresses the history, methods, and content of modern psychology to include psychological psychology and physiological psychology. Pre-requisite: PSY 1102. Lecture: 0.6 credit (9.0 contact hours).

Components: Lecture

PSY 1104(0.6)  Course ID: 006218  Personality & Social Aspects  Addresses the history, methods, and content of modern psychology to include abnormal and social psychology. Pre-requisite: PSY 1103. Lecture: 0.6 credit (9.0 contact hours).

Components: Lecture

PSY 1105(0.6)  Course ID: 006219  Psychological Disorders  Addresses the history, methods, and content of modern psychology to include abnormal psychology and psychological processes. Pre-requisite: PSY 1104. Lecture: 0.6 credits (9.0 contact hours).

Components: Lecture

PSY 2231(0.6)  Course ID: 006379  Foundations of Development  Introduces the principles of developmental psychology with emphasis on theory and data relating to the physical, cognitive, and psycho-social developmental aspects. Examines prenatal development through the birth process. Pre-requisite: PSY 110. Lecture: 0.6 credit (9 contact hours).

Components: Lecture

PSY 2232(0.6)  Course ID: 006380  Infancy through Early Childhood  Emphasizes theory and data relating to the physical, cognitive, and psycho-social developmental aspects of infancy, toddlerhood, and early childhood. Pre-requisite: PSY 2231. Lecture: 0.6 credit (9 contact hours).

Components: Lecture

PSY 2233(0.6)  Course ID: 006381  Middle Childhood & Adolescence  Emphasizes theory and data relating to the physical, cognitive, and psycho-social developmental aspects of middle childhood and adolescence. Pre-requisite: PSY 2232. Lecture: 0.6 credit (9 contact hours).

Components: Lecture

PSY 2234(0.6)  Course ID: 006382  Emerging and Middle Adulthood  Emphasizes theory and data relating to the physical, cognitive, and psycho-social developmental aspects of emerging and middle adulthood. Pre-requisite: PSY 2233. Lecture: 0.6 credit (9 contact hours).

Components: Lecture

PSY 2235(0.6)  Course ID: 006383  Late Adulthood; Death & Dying  Emphasizes theory and data relating to the physical, cognitive, and psycho-social developmental aspects of late adulthood. Examines issues related to death and bereavement. Pre-requisite: PSY 2234. Lecture: 0.6 credit (9 contact hours).

Components: Lecture
Course Descriptions

PTA 101(5)  
Course ID: 016102  
Orientation to Physical Therapy Practice  
Includes orientation to the profession of physical therapy, legal aspects of physical therapy practice, interdisciplinary team, cultural diversity, medical terminology, research and evidence-based practice, and introductory patient-care skills such as communication, aseptic techniques, body mechanics, safety procedures, wheelchair management, patient transfers, patient positioning and draping, and vital signs, identification and fitting of ambulation aids, basic gait training, patient and consumer education. Pre-requisite: Admission to the PTA Program and completion of BIO 137 with a grade of C or better. Lecture: 2.0 credits (30 contact hours). Lab: 3.0 credits (90 contact hours).  
Components: Laboratory, Lecture  
Attributes: Technical

PTA 120(2)  
Course ID: 006723  
Basic Skills for the PTA  
Introduces basic concepts of health and disease and introductory patient care skills. Includes orientation to the profession of physical therapy, legal aspects of physical therapy practice, and introductory patient-care skills such as aseptic technique; body mechanics; safety procedures; wheelchair management; patient transfers; seating and positioning; 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 150, PTA 1502, PTA 121, PTA 170. Lecture: 2 credits (30 contact hours).  
Components: Lecture

PTA 121(2)  
Course ID: 006724  
Basic Skills for the PTA Lab  
Develops introductory patient-care skills such as communication; safety procedures; aseptic technique; body mechanics; wheelchair management; patient transfers; seating and positioning; 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)  
Course ID: 007370  
Neuroanatomy for the PTA  
Encompasses the neuroanatomy of the central and peripheral nervous systems and applies these concepts to common neurologic pathologies found in rehabilitation. Pre-requisite: BIO 137 and admission to the Physical Therapist Assistant Program. Lecture: 1.0 credit (15 contact hours).  
Components: Lecture

PTA 150(6)  
Course ID: 004174  
Functional Anatomy and Kinesiology  
Emphasizes the structure and function of the musculoskeletal system, the relationship with biomechanical principles, basic physical principles, and the mechanical aspects of human motion. Includes muscle testing, flexibility testing, goniometry, and aspects of normal gait and posture. Pre-requisite: Admission to the PTA Program and completion of BIO 137 & BIO 139 with a grade of C or better. Co-requisite: PTA 180 and PTA 170. Pre-requisite or Co-requisite: PTA 100 with a C or better. Lecture: 3.0 credits (45 contact hours). Lab: 3.0 credits (90 contact hours).  
Components: Laboratory, Lecture  
Attributes: Course Also Offered in Modules, Technical

PTA 160(3)  
Course ID: 004173  
Medical and Surgical Conditions in Physical Therapy  
Includes the study of health and disease of all age groups with an emphasis on the etiology, pathology, prevention, data collection, and selected physical therapy interventions and surgical conditions encountered in physical therapy. Pre-requisite: Admission to the PTA Program and completion of BIO 137 and BIO 139 with a grade C or better. Co-requisite: PTA 150 and PTA 170. Pre-requisite or Co-requisite: PTA 100 with a C or better. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

PTA 170(5)  
Course ID: 004013  
Clinical Practicum I  
Includes clinical observation and practice of selected physical therapy interventions and data collection with the application of knowledge from previous/concurrent PTA courses and general education coursework. Pre-requisite: Option for Option 2: Admission to the PTA Program; Completion of BIO 137 & BIO 139 with a C or better. Co-requisite: [Option 1: PTA 150 and PTA 160] OR [Option 2: PTA 1501, PTA 1502, PTA 120, and PTA 121]. Pre-requisite or Co-requisite: Option 1: PTA 100 with a C or better. Practicum: 1 credit (90 contact hours).  
Components: Practicum  
Attributes: Technical

PTA 200(5)  
Course ID: 004017  
Modalities & Procedures in Physical Therapy  
Includes the basic physical science principles of selected physical therapy interventions, data collection, and selected physiotherapy interventions including wound therapy, compression therapy, safety procedures, gait training, traction, massage, superficial heat and cold, deep heat modalities, electrotherapy, ultraviolet radiation, hydrotherapy, and documentation. Pre-requisite: PTA 100, PTA 150, PTA 160, PTA 170. Co-requisite: PTA 220, PTA 240. Lecture: 2 credits (30 contact hours). Laboratory: 3 credits (90 contact hours).  
Components: Laboratory, Lecture  
Attributes: Course Also Offered in Modules, Technical

PTA 202(2)  
Course ID: 006725  
Therapeutic Modalities in Physical Therapy  
Includes the basic physical science, data collection, and the principles of selected physical therapy interventions including, massage, superficial heat and cold, sound agents, electromagnetic radiation, electrotherapy, biofeedback, traction, and compression therapy. Pre-requisite: Admission to the PTA Program; Completion of PTA 1501, PTA 1502, PTA 121, PTA 170 with a C or better. Co-requisite: PTA 222, PTA 223, PTA 232, PTA 233, PTA 203, PTA 240. Student cannot progress to PTA 240 without a grade of C or better in all other co-requisite courses. Lecture: 2.0 credits (30 contact hours).  
Components: Lecture  
Attributes: Technical

PTA 203(2)  
Course ID: 006726  
Therapeutic Modalities in Physical Therapy Lab  
Develops skills in data collection, documentation, and the application of selected physical therapy interventions including, massage, superficial heat and cold, sound agents, electrotherapy, biofeedback, traction, and compression therapy. Lab experiences will reflect concepts taught in the paired lecture course. Pre-requisite: Admission to the PTA Program; Completion of PTA 1501, PTA 1502, PTA 121, PTA 170 with a C or better. Co-requisite: PTA 222, PTA 223, PTA 232, PTA 233, PTA 203, PTA 240. Student cannot progress to PTA 240 without a grade of C or better in all other co-requisite courses. Lab: 2.0 credits (60 contact hours).  
Components: Laboratory  
Attributes: Technical

PTA 220(5)  
Course ID: 004016  
Physical Therapy Principles & Procedures  
Focuses on the application and practice of physical therapy interventions for patients of all age groups with disabilities resulting from the following: brain injury, spinal cord injury, and genetic/congenital disorders. Includes balance disorders, normal growth and development, and the rationale and techniques of neurovascular re-education. Pre-requisite: Admission to the PTA Program; Completion of PTA 1501, PTA 1502, PTA 121 and PTA 170 with a C or better. Co-requisite: PTA 222, PTA 223, PTA 232, PTA 233, PTA 202 and PTA 240. Students cannot progress to PTA 240 without a grade of C or better in all other co-requisite courses. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

PTA 223(2)  
Course ID: 006728  
Pathology & Rehabilitation of Orthopedic Conditions  
Focuses on rehabilitation, anatomy, progression, prevention, data collection, and selected physical therapy interventions for management of patients with disabilities resulting from the following: brain injury, spinal cord injury, and genetic/congenital disorders. Includes balance disorders, normal growth and development, and the rationale and techniques of neuromuscular re-education. Pre-requisite: Admission to the PTA Program; Completion of PTA 1501, PTA 1502, PTA 121 and PTA 170 with a C or better. Co-requisite: PTA 222, PTA 223, PTA 232, PTA 233, PTA 202 and PTA 240. Students cannot progress to PTA 240 without a grade of C or better in all other co-requisite courses. Lecture: 2 credits (60 contact hours).  
Components: Laboratory  
Attributes: Technical

PTA 233(2)  
Course ID: 006730  
Pathology & Rehabilitation of Neurological & Pediatric Conditions  
Develops skills in the application of selected physical therapy interventions for patients of all age groups with disabilities resulting from the following: brain injury, spinal cord injury, and genetic/congenital, and balance disorders. Includes techniques of neuromuscular re-education. Pre-requisite: Admission to the PTA Program; Completion of PTA 1501, PTA 1502, PTA 121 and PTA 170 with a C or better. Co-requisite: PTA 222, PTA 223, PTA 232, PTA 233, PTA 202 and PTA 240. Students cannot progress to PTA 240 without a grade of C or better in all other co-requisite courses. Lab: 2 credits (60 contact hours).  
Components: Laboratory  
Attributes: Technical
Clinical Practicum II
Includes clinical observation and practice of selected physical therapy interventions and data collection with the application of knowledge from previous/concurrent PTA courses and general education coursework. This course will entail four consecutive weeks of full-time clinical experience. In order to participate in this clinical experience, the student must be earning a grade of C or better in all co-requisite courses.
Pre-requisite: [Option 1: Admission to the PTA Program and completion of PTA 100, PTA 150, PTA 160, and all general education courses required for completion of the Physical Therapist Assistant Program with a grade of C or better. Completion of PTA 170 with a grade of P or OR [Option 2: Admission to the PTA Program; Completion of PTA 1501, PTA 1502, PTA 120, PTA 121, and PTA 170 with a C or better. Co-requisite: [Option 1: PTA 200 and PTA 220] OR [Option 2: PTA 222, PTA 223, PTA 232, PTA 233, PTA 202, and PTA 203. Students cannot progress to PTA 240 without a grade of C or better in all co-requisite courses.]} Practicum: 2.0 credits
Components: Practicum
Attributes: Technical

Seminar in Physical Therapy
Prattopts topics to assist the student in the transition to physical therapist assistant including trends, specialized practice, patient services, and the employment process. Utilizes case studies to assist students to integrate theory and practice. Pre-requisite: [Option 1: Admission to the Physical Therapist Assistant Program and completion of PTA 200 and PTA 220 with a grade of C or better. Completion of PTA 240 with a grade of P] OR [Option 2: PTA 222, PTA 223, PTA 232, PTA 233, PTA 202, and PTA 203 with a C or better. Completion of PTA 240 with a grade of P. Co-requisite: [Option 2: PTA 254, PTA 255, and PTA 280. Students cannot progress to PTA 280 without a grade of C or better in all co-requisite courses.]} Co-requisite: [Option 1: PTA 250 and PTA 280 (if taken as a pre-requisite, a grade of C or greater is required.).] Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical

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: [Option 1: Admission to the Physical Therapist Assistant Program and completion of PTA 200 and PTA 220 with a grade of C or better. Completion of PTA 240 with a grade of P] OR [Option 2: PTA 222, PTA 223, PTA 232, PTA 233, PTA 202, and PTA 203. Completion of PTA 240 with a grade of P. Co-requisite: [Option 2: PTA 254, PTA 255, and PTA 280. Students cannot progress to PTA 280 without a grade of C or better in all co-requisite courses.]} Pre-requisite or Co-requisite: [Option 1: PTA 250 and PTA 280 (if taken as a pre-requisite, a grade of C or greater is required.]. Practicum: 5 credits (400 contact hours).
Components: Practicum
Attributes: Technical

Pathology & Rehabilitation of Special Populations & Conditions Lab
Develops skills in the application of selected physical therapy interventions for patients with the following conditions: respiratory system, cardiovascular system, metabolic, and rheumatologic pathologies; psychiatric, infectious diseases, oncology; thermal injuries, integumentary disorders; and wounds. Includes therapeutic exercise and wound care. Pre-requisite: PTA 222, PTA 223, PTA 232, PTA 233, PTA 202, PTA 203 with a C or better. Completion of PTA 240 with a grade of P. Co-requisite: PTA 255, PTA 260, and PTA 280. Students cannot progress to PTA 280 without a grade of C or better in all other co-requisite courses. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical

Pathology & Rehabilitation of Special Populations & Conditions
Emphasizes the etiology, pathology, prevention, data collection, and selected physical therapy interventions for management of patients with the following conditions: respiratory system, cardiovascular system, metabolic, and rheumatologic pathologies; psychiatric disorders; infectious diseases; oncology; thermal injuries; integumentary disorders; and wounds. Includes therapeutic exercise and wound care. Pre-requisite: PTA 222, PTA 223, PTA 232, PTA 233, PTA 202, PTA 203 with a C or better. Completion of PTA 240 with a grade of P. Co-requisite: PTA 255, PTA 260, and PTA 280. Students cannot progress to PTA 280 without a grade of C or better in all other co-requisite courses. Lecture: 1 credit (30 contact hours).
Components: Laboratory
Attributes: Technical

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: Admission to the PTA Program; Completion of BIO 137 & BIO 139 with a C or better. Co-requisite: [Option 1: PTA 160 and PTA 170 OR [Option 2: PTA 120, PTA 121, PTA 1502, and PTA 170]. Pre-requisite or Co-requisite: PTA 100 with a C or better Lab: 3 credits (90 contact hours).
Components: Laboratory

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 and posture. Pre-requisite: Admission to the PTA Program; Completion of BIO 137 & BIO 139 with a C or better. Co-requisite: [Option 1: PTA 160 and PTA 170 OR [Option 2: PTA 120, PTA 121, PTA 1501, and PTA 170]. Pre-requisite or Co-requisite: PTA 100 with a grade of C or better. Lecture: 3 credits (45 contact hours).
Components: Lecture

Quality Management Systems
QMS 101(3) Course ID: 004464
Introduction to Quality Systems
Students are introduced to fundamental concepts, principles, and practices used to improve quality in organizations. The need for organizational change is reviewed and paradigms of quality are introduced. An overview of areas of change, methods of quality planning, and methods for implementing quality policies are provided. Students will practice problem solving techniques, make decisions based on data, work in teams, troubleshoot, and demonstrate knowledge of implementing continuous improvement processes. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

QMS 201(3) Course ID: 004465
Customer Service Improvement Skills
Students will develop cognitive processes and behavioral skills needed to improve personal and work group effectiveness. Techniques are discussed and demonstrated in assessing internal and external customer needs and develop plans for delivery of quality customer service. Topics include customer’s point of view, benchmarking quality customer service processes, developing partnerships with customers, measuring customer satisfaction, self-evaluation, personal transaction statements, time management, communication and listening techniques, coaching, mentoring, group problem solving, and decision making techniques. Lecture: 3 credits (45 contact hours). Pre-requisite: QMS 101 or Consent of Instructor.
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

QMS 202(3) Course ID: 000869
Performance Management
Students are introduced to a systematic, data-oriented approach to managing people for maximizing performance and quality. Data are used to measure and evaluate effectiveness of performance. Organizational and individual behavior will be studied in the context of increasing performance and quality. Lecture: 3 credits (45 contact hours). "M"
Components: Lecture

QMS 210(3) Course ID: 004283
Lean Processes
Introduces the concepts and skills of lean processing for manufacturing and service settings. Covers organizational readiness, SS, value stream mapping, kaizen, and visual workplace. Examines the implementation of processing. Pre-requisite: QMS 101 or Consent of Instructor and MA 109 or MT 150. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

QMS 212(3) Course ID: 004284
Project Management
Provides insight into concepts and skills required to design the infrastructure for the successful planning, scheduling, and launching of a project. Promotes skills necessary to improve coordination of organizational resources, create effective teams, operate efficiently in a rapidly changing world, and minimize internal problems of system start-ups. Teaches techniques to gain organizational acceptance for projects. Pre-requisite: QMS 101 or Consent of instructor. Lecture: 3 Credits (45 contact hours).
Components: Lecture
Attributes: Technical

QMS 220(3) Course ID: 004466
Quality Audits
Involves an in-depth examination of the function of planning, organizing, and conducting quality audits. Emphasizes planning, implementing, and reporting results of quality audits and taking corrective action. Pre-requisite: QMS 101 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

QMS 240(3) Course ID: 004467
Statistics for Quality I
Introduces methods of organizing information about processes. Examines presentation, description, and analysis of data. Emphasizes handling and interpreting numerical information, including histograms and control charts. Presents and applies concepts of probability to control charts to promote process understanding to improve quality of products and service. Investigates sampling principles. Uses computer generated analyses. Pre-requisite: MA 169 or MT 150. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

QMS Quality Management Systems

Critical Thinking for Quality

Customer Service Improvement Skills

Performance Management

Lean Processes

Project Management

Quality Audits

Statistics for Quality I

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QMS 242(3) Course ID: 004468
Statistics for Quality II
Builds upon the foundation of QMS 240 techniques of inferential statistics. Confidence interval estimation, hypothesis testing, regression analysis, ANOVA, and non-parametric tests are developed. Gauging Studies and SPC techniques for short production runs are included. Lecture: 3 credits (45 contact hours), Pre-requisite: QMS 240.
Components: Lecture
Attributes: Technical
QMS 251(3) Course ID: 006668
Strategic Quality Planning
Introduces generic concepts of planning as a proactive catalyst for organizational and quality improvement. Examines the process of envisioning, environmental scanning, mission formulation, and benchmarking. Promotes action planning and leadership for its implementation. Pre-requisite: QMS 101 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical
QMS 262(4) Course ID: 00694
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 optimize process factor settings. Computer software is utilized throughout the course. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (30 contact hours), Pre-requisite: QMS 242 or Consent of Instructor.
Components: Laboratory, Lecture
QMS 299(1-6) Instructor Consent Required
Selected Topics in Quality Management Systems:
(Topic) Quality issues selected are considered in this course. Topics vary from semester to semester. This course may be repeated with different topics for a maximum of 6 credit hours. Lecture: 1-3 credits (15-90 contact hours), Pre-requisite: Consent of Instructor.
Components: Lecture
QMS 101(0.6) Course ID: 005165
Understanding a Quality Focused Organization
Past quality initiatives and progressive quality trends. Lecture: 0.6 credits (9 contact hours)
Components: Lecture
QMS 102(0.6) Course ID: 005166
Quality Tools of the Trade
Quality improvement tools and techniques and their integration into an organization. Pre-requisite: QMS 101 or consent of instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
QMS 103(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 102 or consent of instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
QMS 104(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 103 or consent of instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
QMS 105(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 104 or consent of instructor. Lecture: 0.6 credit (9 contact hours).
Components: Lecture
QMS 211(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 212(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 211 or consent of instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture
QMS 2013(1) Course ID: 006201
Analyzing the Health of the Customer Service Relationship
Includes how to measure customer satisfaction, using decision making techniques. Pre-requisite: QMS 202 or consent of instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture
QMS 2021(0.6) Course ID: 005170
Introduction to Performance Management
Emphasis on performance management and the ABC model of behavior change. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
QMS 2022(0.6) Course ID: 005171
ABC Analysis and Delivering Reinforcers
Principles of ABC analysis with emphasis on reinforcers and techniques in delivering reinforcers. Pre-requisite: QMS 201 or consent or instructor. Lecture: 0.6 credits (9 Contact hours).
Components: Lecture
QMS 2023(0.6) Course ID: 005172
Reinforcement Schedules and Unwanted Behavior
A variety of reinforcement schedules will be introduced and a number of procedures will be analyzed in dealing with unwanted behavior. Pre-requisite: QMS 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
RAE 140(4) Course ID: 004228
Elementary Modern Standard Arabic
Introduces students to the standard written language of the Arab World. Provides initial emphasis upon the phonology and script, followed by gradual coverage of the grammar, with exercises in reading, writing, pronunciation, and vocabulary building. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Other
RAE 150(4) Course ID: 004857
Elementary Chinese I
Introduces basic modes of communication in Chinese. Stressing speaking, listening, reading and writing as target skills. Emphasizes everyday language which the students will learn by applying essential grammatical structures to vocabulary. Presents an overview of the cultures of China. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Foreign Language, Cultural Studies
RAE 151(4) Course ID: 004858
Elementary Chinese II
Continues the study of basic Chinese through grammar, reading, and oral practice. Stressing speaking and listening as the target skills; reading and writing remain centered on intensive and repetitive practice with the pinyin character system. Emphasizes everyday language. Presents an overview of the cultures of China. Pre-requisite: RAE 150 or consent of Instructor. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Foreign Language, Cultural Studies
RCP Respiratory Care Practitioner
RCP 110(3) Course ID: 003786
Cardiopulmonary Anatomy and Physiology
Provides an in-depth analysis of the respiratory and circulatory systems with emphasis on the interaction of systems in gas exchange and acid-base balance as well as the structure and function of the chest cage, mechanisms of breathing and control of respiration. Lecture: 3 credits (45 contact hours). Pre-requisite: BIO 137 with a grade of C or better. Co-requisite: BIO 137.
Components: Lecture
Attributes: Technical
RCP 120(4) Course ID: 003378
Theory and Principles of Respiratory Care
Presents the principles and techniques of therapeutic procedures used in respiratory care, including an emphasis on medical asepsis, safe handling and administration of medical gases, uses of humidity, aerosol therapy, lung inflation techniques, bronchial hygiene therapy and airway care. Pre-requisite or Co-requisite: (BIO 110 and MAT146 or MAT150 or equivalent) with a grade of C or better if taken as pre-requisite). Lecture: 3 credits (45 contact hours). Laboratory: 1 credit (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
RCP 121(1) Course ID: 004832
Respiratory Care Practice I
Emphasizes the health care team and the practice and performance of techniques of basic respiratory care including airway management and bronchial hygiene. Pre-requisite or Co-requisite: RCP 122 with a grade of C or better. Valid Health Care Provider CPR card. Clinical: 1 credit (60 contact hours).
Components: Clinical
Attributes: Technical
RCP 122(4) Course ID: 004831
Fundamentals of Respiratory Care
Introduces respiratory care including chest physical assessment, medical gas therapy, humidity and aerosol therapy, bronchial hygiene, airway management, medical asepsis and development of the respiratory care plan. Pre-requisite: [(MAT 110 or MAT 146 or MAT 150) BIO 137 and BIO 139] with a grade of C or better) or consent of instructor. Lecture: 3 credits (45 contact hours). Laboratory: 1 credit (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
RCP 125(4) | Course ID: 003788
Cardiopulmonary Evaluation
Examines cardiopulmonary assessment with in-depth coverage of invasive and non-invasive arterial blood gas interpretation, electrocardiography and assessment of chest and neck imaging. Pre-requisite: (RCP 110 and BIO 137 and (MT 110 or MT 145 or MT 150) or equivalent) with a grade of C or better. Pre-requisite or Co-requisite: RCP 110. Lecture: 3 credits (45 contact hours), Laboratory: 1 credit (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

RCP 130(3) | Course ID: 003789
Pharmacology
Provides an in-depth study of pharmacological agents, their use in the practice of respiratory care for patients with cardiovascular or pulmonary impairment as well as accuracy in drug calculations and delivery. Lecture: 3 credits (45 contact hours). Pre-requisite: (RCP 110 and (MT 110 or MT 145 or MT 150) with a grade of C or better). Pre-requisite or Co-requisite: RCP 110 and (MT 110 or MT 145 or MT 150).
Components: Lecture
Attributes: Technical

RCP 140(2) | Course ID: 004835
Cardiopulmonary Assessment
Emphasizes blood gas analysis, pulmonary function studies, electrocardiography and chest radiography. Pre-requisite: [RCP 110 and RCP 122 and RCP 130] with a grade of C or better or consent of instructor. Lecture: 1.5 credits (22.5 contact hours), Laboratory: 0.5 credit (15 contact hours).
Components: Clinical
Attributes: Technical

RCP 150(2) | Course ID: 003790
Clinical Practice I
Provides an opportunity for observation and/or performance of techniques for chest physical assessment, medical gas administration, humidity and aerosol therapy and bronchial hygiene in the assigned clinical setting. Pre-requisite or Co-requisite: RCP 120 with a grade of C or better; Valid Health Care Provider CPR card. Clinical: 2 credits (120 contact hours).
Components: Clinical
Attributes: Technical

RCP 175(3) | Course ID: 003781
Clinical Practice II
Provides an opportunity to participate in the health care team while practicing techniques of respiratory care including airway management and bronchial hygiene Pre-requisite: [(RCP 110 and RCP 122 and RCP 130)] with a grade of C or better or consent of instructor. Pre-requisite or Co-requisite: RCP 140 (If taken as a pre-requisite, a grade of C or better is required.) Clinical: 3 credits (180 contact hours).
Components: Clinical
Attributes: Technical

RCP 176(2) | Course ID: 004834
Respiratory Care Practice II
Emphasizes participation in the health care team while practicing techniques of basic respiratory care including airway management and bronchial hygiene. Pre-requisite: [(RCP 110 and RCP 122 and RCP 130)] with a grade of C or better or consent of instructor. Pre-requisite or Co-requisite: RCP 140 (If taken as a pre-requisite, a grade of C or better is required.) Clinical: 2 credits (120 contact hours).
Components: Clinical
Attributes: Technical

RCP 180(3) | Course ID: 003792
Ventilatory Support
Covers the technological and physiological aspects of mechanical ventilation including the theory of operation, classification, and management of the patient ventilator system. Pre-requisite: RCP 120 and RCP 150 with a grade of C or better. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

RCP 185(2) | Course ID: 004837
Introduction to Mechanical Ventilation
Introduces the technological aspects of mechanical ventilation including the theory of operation, classification and patient-ventilator system checks. Pre-requisite: [(RCP 140 and RCP 176)] with a grade of C or better or consent of instructor. Lecture: 1.5 credits (22.5 contact hours). Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

RCP 180(2) | Course ID: 003793
Advanced Ventilatory Support
Addresses advanced concepts in ventilatory support, including physiologic effects, indications, monitoring and management of the patient-ventilator system. Pre-requisite: RCP 180 with a C or better. Lecture: 1.5 credits (22.5 contact hours), Laboratory: 0.5 credits (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

RCP 195(4) | Course ID: 004838
Patient-Ventilator System Management
Addresses advanced concepts in ventilatory support including monitoring and management of the patient-ventilator system. Pre-requisite: [(RCP 185 and RCP 201)] with a grade of C or better or consent of instructor. Lecture: 2 credits (45 contact hours), Laboratory: 1 credit (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

RCP 200(3) | Course ID: 003794
Clinical Practice III
Provides practice in adult mechanical ventilation procedures and airway management in the critical care setting and performance of other respiratory care skills. Pre-requisite: RCP 175 with a grade of C or better. Clinical: 3 credits (180 contact hours).
Components: Clinical
Attributes: Technical

RCP 201(2) | Course ID: 004836
Respiratory Care Practice III
Provides practice in adult mechanical ventilation procedures and airway management in the critical care setting in addition to continued performance of the basic respiratory care skills. Pre-requisite: [(RCP 140 and RCP 176)] with a grade of C or better or Consent of Instructor. Clinical: 2 credits (120 contact hours).
Components: Clinical
Attributes: Technical

RCP 204(3) | Course ID: 003795
Emergency & Special Procedures
Prepares students to participate in advanced emergency life support and special procedures. Pre-requisite or Co-requisite: [(RCP 130 and BIO 139)] with a grade of C or better. Lecture: 2.5 credits (37.5 contact hours), Laboratory: 0.5 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

RCP 210(3) | Course ID: 003796
Cardiopulmonary Pathophysiology
Addresses the etiology, diagnosis, clinical manifestations and management of cardiopulmonary disorders as related to respiratory care including the fundamental microbiological principles and their relation to health and disease. Pre-requisite: [(RCP 110 or (RCP 201 and RCP 185)] with a grade of C or better or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

RCP 212(3) | Course ID: 003797
Neonatal/Pediatric Respiratory Care
Provides a study of the special needs of the neonatal and pediatric patient with focus on fetal cardiopulmonary development, evaluation, assessment and treatment of cardiopulmonary conditions and diseases of the neonatal and pediatric patient, as well as equipment unique to this population. 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: 2.75 credits (41.25 contact hours), Laboratory: 0.25 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 (22.5 contact hours), Laboratory: 0.5 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

RCP 250(3) | Course ID: 003801
Clinical Practice V
Prepares students to participate in effective and efficient planning, managing and delivering respiratory care to diverse client populations in various settings. Pre-requisite: RCP 225 with a grade of C or better. Clinical: 3 credits (180 contact hours).
Components: Clinical
Attributes: Technical
RDG 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 200 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 260(1)  Course ID: 004846  Respiratory Care Seminar  Analyzes material previously studied in the program and prepares students for the National Board for Respiratory Care examination. Addresses job seeking skills. Pre-requisite: [RCP 200 and RCP 210 and RCP 212 and RCP 226] with a grade of C or better or Consent of Instructor. Lecture: 1 credit (15 contact hours).

Components: Lecture  Attributes: Technical

**RDG 185**  Course ID: 000301  Designed to improve critical reading, thinking, and writing at the college level by identifying the components of expository, persuasive, argumentative, and research text. Includes the author’s use of tone, purpose, biased language and writing patterns. Apply strategies to college level text. Pre-requisite: KCTCS Placement Policy. Lecture: 3.0 credits (45 contact hours).

Components: Lecture  Attributes: Course Also Offered in Modules

**RDG 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  Constructs 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: 0.75 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: 0.75 credits (11.25 contact hours).

Components: Lecture  Attributes: Remedial - Reading

**RDG 301(1)**  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 completion of RDG 200. Lecture: .75 credits (11.25 contact hours).

Components: Lecture  Attributes: Remedial - Reading

**RDG 302(0.75)**  Course ID: 006742  Text Structures and Supports  Analyzes text structures, paragraphs, longer passages, and arguments for central ideas, supporting examples, reasons, and evidence to construct meaning from texts. Pre-requisite: As determined by KCTCS Placement Policy, or completion of RDG 200. Lecture: .75 credits (11.25 contact hours).

Components: Lecture  Attributes: Remedial - Reading

**RDG 303(0.75)**  Course ID: 006743  Logic and Evidence  Analyzes text for logical reasoning and valid supports to quickly detect key information in texts. Pre-requisite: As determined by KCTCS Placement Policy, or completion of RDG 200. Lecture: .75 credits (11.25 contact hours).

Components: Lecture  Attributes: Remedial - Reading

**RDG 304(0.75)**  Course ID: 006744  Words and Visual Elements  Constructs meaning from word parts, context clues, connotation, and denotation for accurate comprehension of text. Evaluate word combinations to determine the author’s view, tone, and purpose for writing the texts. Infer meaning from visual elements such as diagrams, charts, and photos. Pre-requisite: As determined by KCTCS Placement Policy, or completion of RDG 200. Lecture: .75 credits (11.25 contact hours).

Components: Lecture  Attributes: Remedial - Reading

**REA 120(3)**  Course ID: 000365  Real Estate Marketing  Includes marketing and selling of real estate properties. Emphasizes qualifying prospects, preparing for property showings, negotiating the sale, developing a five-year goal plan, and managing time. Utilizes computer applications. Lecture: 3.0 credits (45 contact hours).

Components: Lecture  Attributes: Technical

**REA 121(3)**  Course ID: 000778  Appraising  Addresses appraising residential real estate for loans, estates, condemnations, and listings, and the factors that contribute to the value of real estate. Includes three methods of estimating value with emphasis given to the market data approach. Lecture: 3.0 credits (45 contact hours).

Components: Lecture  Attributes: Technical

**REA 122(3)**  Course ID: 000575  Construction and Blueprints  Includes the basic concepts of construction, design, and blueprint reading. Lecture: 3.0 credits (45 contact hours).

Components: Lecture  Attributes: Technical
REA 200(3)  Course ID: 000805
Real Estate Principles II
Continues Real Estate Principles I with emphasis on license law, finance, property management, marketing, land planning and development, brokerage management, fair housing, and appraising. Pre-requisite: REA 100. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

REA 201(3)  Course ID: 000915
Property Management
Examines the basics of managing income-producing real property. Includes management plans, tenant selection, marketing and advertising, accounting methods, net operating income statements, maintenance, and the Landlord Tenant Act. Pre-requisite: REA 100. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

REA 202(2)  Course ID: 000875
Real Estate Investments I
Introduces various types of real estate investments. Includes a comparison of investments in real estate with other types of investments. Covers basic fundamentals of investment analysis and terminology. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

REA 203(3)  Course ID: 000527
Commercial and Industrial Property
Covers classifications of commercial and industrial properties. Includes investment, environment, financing, taxes, depreciation, ownership, cash flow, and discount analysis. Integrates computer applications. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

REA 204(3)  Course ID: 000825
Land Planning and Development
Includes the specialized field of land planning and development with emphasis on new home construction. Includes market research, site selection and analysis, regulations, financing, earthwork, streets, and landscaping. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

REA 205(3)  Course ID: 000620
Farm Brokerage
Includes farm brokerage and specific subjects relating to the sale of farm property. Covers listing, prospecting, showing, financing, negotiating, and closing the farm sale as well as the duties of the farm manager. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

REA 212(3)  Course ID: 000194
Real Estate Investments II
Includes an analysis of operations and cash flow with detailed instruction on the use and calculation of internal rate of return, financial management rate of return, operational and feasibility analysis, and model investment projections. Pre-requisite: REA 202. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

REA 220(3)  Course ID: 000886
Real Estate Brokerage Management
Includes basic real estate principles and theories as they apply to real estate brokerage management. Includes legal and work environment; brokerage management concepts; employment agreements; personnel selection, compensation, and management; policy manuals; listing and marketing management; and financial control. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

REA 221(1)  Course ID: 004772
Basic Income Approach to Property Valuation
Provides students with a foundation in the concepts and procedures necessary in the appraisal of real estate income property. Explores how Gross Potential Income is obtained by market analysis and research, how and where to obtain all operating expenses being generated by an income-producing property, how to develop a reliable Capitalization Rate, and how to utilize Direct Capitalization Methods. Pre-requisite: REA 121 or Appraiser’s license. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
Attributes: Technical

REA 222(1)  Course ID: 004773
Uniform Standards of Professional Appraisal
Provides an understanding and appreciation of the Uniform Standards of Professional Appraisal Practice (USPAP) and how these standards set the minimum foundation on which both the development of an appraisal and the reporting of that appraisal must adhere and develop. Meets the pre-licensing and continuing education requirements of the Kentucky Real Estate Appraisers Board and the Appraisal Institute. Pre-requisite: REA 121 or Appraiser’s license. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
Attributes: Technical

REA 225(3)  Course ID: 000432
Real Estate Finance
Examines all aspects of real estate finance including financial instruments, financial institutions, buyer qualifications, and mortgage markets. Includes governmental influence, risk analysis, and financing of income-producing properties. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

REA 230(3)  Course ID: 000391
Real Estate Law
Examines the laws and regulations pertaining to real estate and related environmental issues. Includes ownership rights, title examination, planning and zoning, contracts of sale, Fair Housing regulations, agency issues, court systems and recent court decisions. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

REA 299(1 - 3)  Course ID: 000541
Selected Topics in Real Estate: (Topic)
Includes topics to expand course offerings as new technology and information are developed, as well as to address local real estate needs. Covers various topics from semester to semester at the discretion of the instructor. (May be repeated to a maximum of six credit hours.) Pre-requisite: Consent of instructor. Lecture: 1-3 credits (15 contact hours).

Components: Lecture

REL 101(3)  Course ID: 000916
Introduction to Religious Studies
Introduces students to the study of religion, emphasizing the varieties, differences, and similarities of religious experience and expression. Examines the interaction between religious experience and expression and social and cultural contexts through study of selected examples. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

REL 102(3)  Course ID: 005523
Philosophy of Religion
Introduces students to the study of religion, emphasizing the varieties, differences, and similarities of religious experience and expression. Examines the interaction between religious experience and expression within its social and cultural contexts. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities, SB - Social Behavior Science

REL 120(3)  Course ID: 005282
Introduction to the Old Testament
Introduces books of the Hebrew Bible (Old Testament) using knowledge of literary forms as well as historical and cultural backgrounds to aid in the interpretation of the religious and philosophical meanings of the text. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Other

REL 121(3)  Course ID: 005283
Introduction to the New Testament
Introduces New Testament using knowledge of literary forms as well as historical and cultural backgrounds to aid in the interpretation of the religious and philosophical meanings of the text. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: AH - Arts and Humanities

REL 130(3)  Course ID: 000360
Introduction to Comparative Religion
Introduces students to a comparative analysis of world religions, emphasizing beliefs, rituals, artistic expressions, and cultural and social organization. Includes both Eastern and Western religions. (Same as ANT 130). Lecture: 3 credits (45 contact hours).

Components: Lecture
Course Equivalences: ANT 130
Attributes: AH - Arts and Humanities, SB - Social Behavior Science, Course Also Offered in Modules

REL 135(3)  Course ID: 007063
Introduction to Comparative Christianity
Provides an overview of the history of Christianity and compares the major Christian faiths and movements, their formation, and the political and social influences that caused their development. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

REL 150(3)  Course ID: 007409
Comparative Ethics of Major World Religions
Examines central theological teachings, modes of ethical reasoning, key ethical virtues and norms of major religious traditions from both Eastern and Western Religions. Considers the lives, sacred stories, dogma and texts of central religious figures as part of the context for moral thinking in a global setting. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Other

REL 240(3)  Course ID: 006945
Life and Teaching of Jesus
Investigates the life and teachings of Jesus of Nazareth through a critical analysis of the ancient sources and modern scholarly reconstructions. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Other

REL 241(3)  Course ID: 006946
Life and Letters of Paul
Presents the person and thought of the Apostle Paul in social, cultural, political, philosophical, and theological context. Investigates Paul’s ethics and his views as preserved in the Christian New Testament. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

REL 298(3)  Course ID: 006968
Special Topics in Religion: Topic
Examines special topics in Religion. Includes but not limited to individual religious figures, movements, sacred writings, religious traditions and selected eras. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Other

REL 1301(1)  Course ID: 007323
Introduction to Religion
Introduces students to the relationship between religion, society, and the individual. Explores basic precepts of world religions through their socio-cultural development. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

REL 1302(1)  Course ID: 007324
Major Eastern Religions
Identifies belief systems and ritual expressions of major Eastern religions. Analyzes the impact on the individual and society. Pre-requisite: REL 1301. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
REL 1303(1) Course ID: 007325
Major Western Religions
Identifies belief systems and ritual expressions of major Western religions. Analyzes the impact on the individual and society. Pre-requisite: REL 1301. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

RES Respiratory Care
RES 299(1 - 6) Course ID: 003802
Selected Topics in Respiratory Care: (Topic)
A special project or experience in Respiratory Care will be selected to enhance core material in the Respiratory Care Program. It provides the student an opportunity for independent-study and specialized instruction as approved by the instructor. This course may be repeated to a maximum of 6 hours. Lecture: variable; Laboratory: variable. Co-pre-requisite: Consent of the Instructor. Components: Laboratory, Lecture

SCI Science
SCI 295(3) Course ID: 005237
Scientific Investigations
Real-time, hands-on research projects are carried out using the scientific method. Results of research projects may be presented at the Conference for Student Research, or other scientific meetings. Students prepare research projects for inclusion in a Handbook of Procedures Using the Scientific Method. Pre-requisite: 1. Mathematics, Reading, and English assessment placement scores above developmental levels or completion of requisite developmental courses. 2. Completion of 3 credit hours of general education science area in which the research project will be carried out with grade of B or higher. 3. Consent of Instructor. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (60 contact hours). Components: Lecture Attributes: Technical

SED Special Education
SED 101(3) Course ID: 000923
Sign Language I
Includes a functional-notational approach to a beginning competency in Sign Language. Incorporates syntax, grammar, non-manual markers (behaviors) of sign language, and cultural information. (After an initial orientation period, no verbal communication will be used in the classroom.). Lecture: 3 credits (45 contact hours). Components: Lecture Attributes: Foreign Language, Cultural Studies

SET Small Engine Repair
SET 100(3) Course ID: 002002
Introduction to Small Engine Repair
This course introduces the student to small engines and their various applications. Also included are the identification and demonstration of hand tools, special tools, and measuring tools. It covers the selection and use of shop manuals and applying safety procedures when working with small engines. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

SET 101(3) Course ID: 002003
Basic Small Engine Theory
This course introduces the student to the principles of construction and operation of internal combustion engines including the definitions of the following trade terms: valve overlap, reed value, two-stroke cycle engine and four-stroke cycle engine. Co-requisite: SET 100. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

SET 111(1) Course ID: 002004
Basic Small Engine Lab
This course provides applications of the theory presented in SET 110. It includes hands-on experience, step-by-step procedures for disassembling engines, identification of engine components, inspection of parts, performing precision measurements on crankshaft, cylinder bore and valves, and the reassembly of the engines. Co-requisite: SET 110. Laboratory: 1 credit (45 contact hours).
Components: Laboratory Attributes: Technical

SET 116(3) Course ID: 002005
Introduction to Marine Technology
This course introduces the student to outboard and inboard motors and boats, safety practices and the operation of two-cycle and four-cycle motors. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

SET 117(2) Course ID: 002006
Marine Electrical and Fuel Systems
This course presents electrical theory and applications for the marine technician including the marine battery, starter systems, alternator charging systems, and fuel systems. Laboratory: 2 credits (90 contact hours).
Components: Laboratory Attributes: Technical

SET 118(3) Course ID: 002007
Powerhead Overhaul
This course presents instruction in overhauling two-cycle engines and repairing and/or replacing ignition systems. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

SET 118(1) Course ID: 002008
Powerhead Overhaul Lab
This course presents hands-on experience in overhauling two-cycle motors, turning-up motors and repairing and/or replacing ignition systems. Co-requisite: SET 118. Laboratory: 1 credit (45 contact hours).
Components: Laboratory Attributes: Technical

SET 120(3) Course ID: 002009
Mid-Section, Lower Unit and Trim/Tilt
This course presents the theory and application necessary to repair and/or replace parts in the mid-section, lower unit, and trim/tilt systems in marine applications. Lecture: 3 credits (45 contact hours).
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SET 121(2) Course ID: 002010
Mid-Section, Lower Unit and Trim/Tilt Lab
This course presents hands-on instruction in the theory necessary to repair and/or replace parts in the mid-section, lower units, and trim/tilt systems in marine applications. Co-requisite: SET 120. Laboratory: 2 credits (90 contact hours).

Components: Laboratory Attributes: Technical

SET 122(3) Course ID: 002011
Four-Cycle Engine/Stern Drive
This course presents the theory and application of repair and overhaul methods for the four-cycle engines, and how to make repairs of various stern drive systems. Prerequisite: None. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Technical

SET 123(1) Course ID: 002012
Four-Cycle Engine/Stern Drive Lab
This course presents hands-on training in the theory and application of repair and overhaul methods for the four-cycle engines, and how to make repairs of various stern drive systems. Co-requisite: SET 122. Laboratory: 1 credit (45 contact hours).

Components: Laboratory Attributes: Technical

SET 200(3) Course ID: 002013
Electrical Systems
This course presents electrical systems and their application. Basic electrical theory, including electrical pressure, current, resistance and power measured in volts, amperes, and ohms is also presented. Ohm’s law will be discussed with its application to electrical circuits. Basic circuits (series, parallel, and combination of series and parallel) will be discussed. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Technical

SET 201(1) Course ID: 002014
Electrical Systems Lab
This course presents hands-on training in electrical systems and their application. Basic electrical theory, including electrical pressure, current, resistance and power measured in volts, amperes, and ohms is presented. Ohm’s law will be discussed with its application to electrical circuits. Basic circuits (series, parallel, and combination of series and parallel) will be discussed. Co-requisite: SET 200. Laboratory: 1 credit (45 contact hours).

Components: Laboratory Attributes: Technical

SET 210(3) Course ID: 002015
Ignition/Charging Systems
This course presents ignition/charging systems theory, the principle of operation of a generator/alternator system, and component identification and application. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Technical

SET 211(1) Course ID: 002016
Ignition/Charging Systems Lab
This course presents hands-on experience with ignition/charging systems, the principle of operation of a generator/alternator system, and component identification and application. Co-requisite: SET 210. Laboratory: 1 credit (45 contact hours).

Components: Laboratory Attributes: Technical

SET 220(3) Course ID: 002017
Fuel Systems
This course introduces fuel systems used on two-cycle and four-cycle engines: the basic types, components, the types of carburetors, the types of fuel filters, and the types of fuel pumps and air filters. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Technical

SET 221(1) Course ID: 002018
Fuel Systems Lab
This course provides hands-on experience with fuel systems. The student will diagnose carburetor problems, rebuild diaphragm-type and float type carburetors, test carburetor and related needed adjustments, and adjust the governor according to manufacturers’ specifications on two-cycle and four-cycle engines. Co-requisite: SET 220. Laboratory: 1 credit (45 contact hours).

Components: Laboratory Attributes: Technical

SET 223(2) Course ID: 002021
Carburators and Fuel Systems
The student will be able to identify parts of a motorcycle carburetor and discuss the components and operations of various carburetor circuits. The student will also be able to remove, clean, and install a carburetor and remove, clean and install a fuel valve. Laboratory: 2 credits (90 contact hours).

Components: Laboratory Attributes: Technical

SET 223(3) Course ID: 002020
Motorcycle Chassis Systems
After completion of this course, the student will be able to identify front fork components and service procedures for the steering assembly. The student will be able to identify the service requirements for final drives and the front fork. Instruction will be given in the inspection of brake systems, safe handling of brake fluid, replacing brake shoes and pads, and bleeding hydraulic brake systems. Laboratory: 3 credits (135 contact hours).

Components: Laboratory Attributes: Technical

SET 233(2) Course ID: 002021
Carburators and Fuel Systems
The student will be able to identify parts of a motorcycle carburetor and discuss the components and operations of various carburetor circuits. The student will also be able to remove, clean, and install a carburetor and remove, clean and install a fuel valve. Laboratory: 2 credits (90 contact hours).

Components: Laboratory Attributes: Technical

SET 235(1) Course ID: 002022
Clutches and Starter Systems
Upon completion of this course the student will be able to discuss starter systems found on motorcycles and have a working knowledge of servicing kick and electric starters. The student will also be able to identify parts of a clutch, discuss guidelines for clutch service and be able to remove, disassemble, inspect and reassemble a motorcycle clutch. Laboratory: 1 credit (45 contact hours).

Components: Laboratory Attributes: Technical

SET 237(2) Course ID: 002023
Engine Tune-Up
After completion of this course the student will be able to perform motorcycle engine tune-ups including: ignition systems, replacing points and condensers, adjusting and verifying timing and service guidelines. Laboratory: 2 credits (90 contact hours).

Components: Laboratory Attributes: Technical

SET 239(1) Course ID: 002024
Tools and Measurements
After completing this course the student will be able to list and demonstrate the ability to use the tools of the motorcycle technician, including hand tools, power tools, measuring instruments and specialty tools. Laboratory: 1 credit (45 contact hours).

Components: Laboratory Attributes: Technical

SET 240(3) Course ID: 002025
Four Stroke Cycle Engine
This course presents theory, repair and overhaul methods of four-cycle engines. The student will learn to inspect engines for problems, follow service manuals for measuring cylinder bore, piston fit, ring clearance, rod clearance, crankshaft clearance and valve train components. The student will use the following special tools: cylinder hone, valve guide reamer, valve seat cutter, and valve grinder. Safety practices will be observed while using the equipment. Co-requisite: SET 240. Laboratory: 1 credit (45 contact hours).

Components: Laboratory Attributes: Technical

SET 250(3) Course ID: 002027
Two Stroke Cycle Engine
This course presents theory, repair and overhaul methods of two-stroke cycle engines. Students learn to inspect engines for problems, follow a service manual for measuring cylinder bore, piston fit, ring clearance, rod clearance, crankshaft clearance and valve training components. This course introduces students to the following special tools: cylinder hone, valve guide reamer, valve seat cutter, and valve grinder. Safety practices will be observed while using equipment. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Technical

SET 251(1) Course ID: 002028
Two Stroke Cycle Engine Lab
Students repair and overhaul two-cycle engines. Students disassemble, inspect, and service cylinder, piston rings and connecting rod, crankshaft and crankcase assembly, and demonstrate effective safety practices while using special equipment. Students also reassemble and test engines and components to standards set by manufacturer. Co-requisite: SET 250. Laboratory: 1 credit (45 contact hours).

Components: Laboratory Attributes: Technical

SET 255(2) Course ID: 002029
Chassis Systems
This class presents hands-on application of the theory, repair, and overhaul methods of manual and hydrostatic transmissions. It includes how to inspect, diagnose, and repair manual and hydraulic steering systems and deck assemblies. The student will also learn how to perform preventative maintenance, adjust wheel bearings, check steering alignment and remove and replace tires. This course will introduce the student to special tools, fire changers, and the safety practices associated with the use of this equipment. Laboratory: 2 credits (90 contact hours).

Components: Laboratory Attributes: Technical

SET 257(1) Course ID: 002030
Welding for Small Engines
This class introduces students to the art and science of welding. Students learn to prepare the equipment and to perform basic welding operations. Laboratory: 1 credit (45 contact hours).

Components: Laboratory Attributes: Technical

SET 258(2) Course ID: 002031
Portable Two Cycle Equipment Lab
This class will enable the student to identify the external parts of the equipment, operate equipment, handle and mix fuel, and transport and handle trimmers and saws. Instruction will be given to identify and diagnose related problems in chainsaws, trimmers and other two-stroke cycle equipment. Laboratory: 2 credits (90 contact hours).

Components: Laboratory Attributes: Technical

SET 298(2) Course ID: 002032
Practicum
Practicum provides supervised on-the-job work experience related to the student’s education objectives. Students participating in practicum do not receive compensation. Pre-requisite: Permission of Instructor. Practicum: 2 credits (150 contact hours).

Components: Practicum
Safety and First Aid

SFA 100(1)
Course ID: 002034

SFA 101(3)
Course ID: 004735

OSHA, Health, & Environmental Safety

The basics of OSHA compliance in addition to covering the principles of industrial health and safety, environmental regulations, and industrial requirements with a focus on personal safety and health. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

Surveys

SMT 110(3)
Course ID: 002035

Principles of Surveying

Provides a study of field and office procedures for measuring distances, elevations, and horizontal and vertical angles. Covers Polaris and solar observations, state plane coordinates, control surveys, and public land surveys. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

SMT 130(3)
Course ID: 006733

Land Surveying Graphics

Covers graphical communication in surveying and mapping, fundamentals of projection, map projection theory, 3-D viewing, spatial relationships and viewpoints, plats, profiles, cross-sections, sketches for field notes and presentations in technical reports, map accuracy standards, plotting data from field notes and data collection, contour theory, and computations related to survey drafting. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

SMT 160(3)
Course ID: 002038

Construction Surveying

Provides a study of field and office procedures for the layout of construction sites. Includes theory of construction surveys for route locations, plant site, earthwork calculations, circular curves, lines, and grades. Pre-requisite: SMT 110, or Instructor Consent. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

SMT 210(3)
Course ID: 006734

Advanced Surveying Measurement

Examines the nature of measurements, statistical analysis of random errors in measurements, propagation of errors, survey standards and design specifications, development of coordinate geometry and trigonometric solutions of plane surveying problems, analysis of errors and mistakes in indirect measurement. Pre-requisite: SMT 110. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

SMT 220(3)
Course ID: 004438

Surveying Lab

Investigates field procedures for measuring distances, elevations, horizontal and vertical angles, state plane coordinates and control surveys as they pertain to boundary location, route location, construction and mine surveys. Co-requisite: SMT 160. Laboratory: 3 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

SMT 230(3)
Course ID: 006735

Land Boundary Location

Explores the role of the surveyor in retracing land boundaries, methods of boundary establishment, classification and analysis of boundary evidence, preparing deed descriptions and survey plats, preservation of survey evidence, surveyor as expert witness, liability, and professionalism in surveying. Pre-requisite: SMT 110. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

SMT 250(3)
Course ID: 006736

Mine Surveying

Introduces the theory and practice of mine surveying and use of survey instruments, for the location of drill holes, bench surveys, layout of blasting patterns, haul road layout, transfer of control from surface to underground, alignment of underground development, recording of survey information, control systems, location and selection of stations, bore hole surveys, and subsidence surveys. Pre-requisite: SMT 130 or Instructor Consent. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

SMT 270(3)
Course ID: 002041

Professional Ethics & Conduct for Land Surveyors

Explores the professional and ethical conduct of the Land Surveyor in areas of building a business, managing employees, communications, project management, and self-management. Pre-requisite: SMT 230, or Instructor Consent. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

SMT 280(4)
Course ID: 004436

Introduction to GIS and GPS

This course provides an overview of the principles and practices of Geographic Information Systems (GIS) and Global Positioning Systems (GPS). The GIS portion of the course will deal with issues of spatial data models, database design, introductory and intermediate GIS operations, and case studies of real world GIS applications. The GPS portion of the course focuses on GPS technology, software applications. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (45 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

SMT 290(3)
Course ID: 004435

Boundary Law

This course is the survey of property law, explaining the creation, description, and maintenance of property boundaries, easements and right-of-ways. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

SMT 292(1 - 6)
Course ID: 004471

Instructor Consent Required Special Topics

Various topics will be addressed. Laboratory: 1 - 6 credits (45 - 270 contact hours). Pre-requisite: Permission of Instructor.

Components: Laboratory
Attributes: Technical

Soc Sociology

SOC 101(3)
Course ID: 000920

Introduction to Sociology

Introduces concepts and methods of sociology including investigation of socialization, group processes, social inequality, social institutions, and social change. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SB - Social Behavior Science

SOC 152(3)
Course ID: 000404

Modern Social Problems

Examines selected social problems of the day from a sociological perspective. Topics may include family, poverty, education, crime, race, housing, population, health care, industrial development, and power. Pre-requisite: SOC 101 or SOC 151, or Consent of Instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SB - Social Behavior Science

SOC 220(3)
Course ID: 000890

The Community

Examines social organization and process in modern communities, both rural and urban; social techniques of community improvement. Pre-requisite: Three hours of sociology or Consent of Instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SB - Social Behavior Science

SOC 235(3)
Course ID: 002258

Inequality in Society

Analyzes the nature, development, and persistence of inequality in various societies. Diverse dimensions of inequality are viewed as the basis for a number of specific social problems in Western and non-Western societies. Social origins of inequality are emphasized; Policy implications are addressed. Pre-requisite: Three hours of sociology or Consent of Instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SB - Social Behavior Science

SOC 249(3)
Course ID: 002259

Mass Media and Mass Culture

Examines the interplay between the technology and content of the mass communications media and culture. Pre-requisite: COM 101 or SOC 101 or its equivalent. (Same as COM 249). Lecture: 3 credits (45 contact hours).

Components: Lecture
Course Equivalents: COM 249
Attributes: SB - Social Behavior Science

SOC 260(3)
Course ID: 000712

Population, Resources and Change

Examines the relationship between human social and cultural systems and their environment. Perception, definition and policy responses to environmental, resource and population issues are explored. Pre-requisite: SOC 101 or Consent of Instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SB - Social Behavior Science

SOC 293(3)
Course ID: 002260

Special Introductory Topics in Sociology

An introductory study of a selected topic in sociology. Topics may include, but are not limited to, industrial sociology, sociology of aging, gender issues, criminology, social inequalities, sociology of families, and rural sociology. Pre-requisite: SOC 101 or RSO 102. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Other

SOC 293(3)
Course ID: 000516

Deviant Behavior


Components: Lecture
Attributes: University Course (Western Kentucky University)
SPA Spanish Language and Literature

SPA 101(4) Course ID: 000922
Elementary Spanish I (spoken approach)
Introduces basic modes of communication in Spanish. Stresses speaking, listening, reading and writing as target skills. Emphasizes everyday language which the students will learn by applying essential grammatical structures to vocabulary. Provides instructional assignments and self-correctional exercises that will be practiced in the classroom. Presents an overview of the culture of various Spanish-speaking countries.
Components: Lecture
Attributes: Foreign Language, Cultural Studies, Course Also Offered in Modules

SPA 102(4) Course ID: 000799
Elementary Spanish II (spoken approach)
Continues to highlight the basic modes of communication in Spanish, to include present and past tense. Stresses speaking, listening, reading and writing as target skills.
Components: Lecture
Attributes: Foreign Language, Cultural Studies, Course Also Offered in Modules

SPA 110(3) Course ID: 003884
Basic Conversational Spanish
Introduces pronunciation, practical structures, and basic vocabulary designed to enable students to communicate using simple Spanish in everyday situations in Spanish-speaking countries and areas of the United States. Cannot be used for major or minor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other

SPA 115(3) Course ID: 002261
Hispanic Culture: (Country or Region)
Introduces the basic cultural patterns of a Spanish-speaking country or region through in-class experience and/or travel. May be taken up to two times with focus on different country or region. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science

SPA 151(3) Course ID: 005762
Spanish for Health Professionals
The course will teach Spanish terminology and basic grammar related to medical patients, including vocabulary for diagnosis and treatment. Pre-requisite: Prior college or high school Spanish or other experience with the Spanish language roughly equivalent to one semester of college study. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: University Course (University of Kentucky)

SPA 201(3) Course ID: 000917
Intermediate Spanish I
Focuses on intermediate level speaking, listening, reading, and writing skills with an emphasis on more advanced grammatical structures; emphasizes speaking the language to expand vocabulary; examines current issues, cultural nuances, and dominant Hispanic themes.
Components: Lecture
Attributes: Foreign Language, Cultural Studies

SPA 202(3) Course ID: 002262
Intermediate Spanish II
Continues intermediate level speaking, listening, reading, and writing skills from SPA 201 with an emphasis on more advanced grammatical structures; focuses on speaking the language to expand vocabulary; examines current issues, cultural nuances, and dominant Hispanic themes.
Components: Lecture
Attributes: Foreign Language, Cultural Studies

SPA 211(3) Course ID: 004678
Spanish Conversation
Sections limited to no more than 15 students each. Oral-aural practice in spoken language. Special emphasis placed on the acquisition of idioms and fundamental conversational vocabulary. Pre-requisite: SPA 202 or equivalent or consent from the department. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

SPA 1011(0.8)
Spanish Greetings & Farewells
Highlights greetings and farewells in simple conversations; introduces the present tense of the verb ser (to be); explores the geography, culture, history and political issues of Spanish speaking countries with focus on Hispanics in the United States. Lecture: 0.8 credit (12 contact hours).
Components: Lecture

SPA 1012(0.8)
Spanish for School Life
Introduces basic modes of communication to discuss school life and everyday activities; focuses on asking questions and describing people and things. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

SPA 1013(0.8)
Spanish for Family and Friends
Features descriptions of family and friends; focuses on using possessive and descriptive adjectives; introduces the present tense of -er and -ir verbs; uses the verbs tener and venir to express needs and state of mind; explores the geography, culture, history and political issues of Spanish speaking countries with focus on Chile. Pre-requisite: SPA 1011. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

SPA 1014(0.8)
Spanish for Pastime Activities
Introduces past time and explores the geography, culture, history and political issues of Spanish speaking countries with focus on Mexico. Pre-requisite: SPA 1013. Lecture: 0.8 credit (12 contact hours).
Components: Lecture

SPA 1015(0.8)
Spanish for Travel
Introduces conversational Spanish and explores the geography, culture, history and political issues of Spanish speaking countries with focus on Guadalajara. Pre-requisite: SPA 1014. Lecture: 0.8 credit (12 contact hours).
Components: Lecture

SPA 1021(0.8)
Spanish for Shopping
Introduces conversational Spanish and explores the geography, culture, history and political issues of Spanish speaking countries with focus on Peru. Pre-requisite: SPA 1021. Lecture: 0.8 credit (12 contact hours).
Components: Lecture

SPA 1022(0.8)
Spanish for Daily Routines
Introduces conversational Spanish and explores the geography, culture, history and political issues of Spanish speaking countries with focus on Haiti. Pre-requisite: SPA 1022. Lecture: 0.8 credit (12 contact hours).
Components: Lecture

SPA 1023(0.8)
Spanish for Restaurant Settings
Introduces conversational Spanish and explores the geography, culture, history and political issues of Spanish speaking countries with focus on Chile. Pre-requisite: SPA 1022. Lecture: 0.8 credit (12 contact hours).
Components: Lecture

STA Statistics

STA 111(3) Course ID: 007218
Sport Statistics
Introduces students to concepts within the sports world where math and statistics skills are applied. Includes analysis of sports formulas, processes, and calculations. Assumes math and statistics skills and familiarity with the sports world. Assumes students will have a general knowledge and interest in sports. Pre-requisite or Co-requisite: MAT 065. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

STA 210(3)
Statistics: A Force in Human Judgment
Examines the interaction of the science and art of statistics with our everyday lives emphasizing examples from the social and behavioral sciences. The student will not be required to learn mathematical formulas. Topics include the nature of statistics, uses and misuses of statistics, the scope and limitations of statistics, criteria by which published statistics may be judged, interpretation of probability and the art of decision making. Pre-requisite: Completion of the mathematics basic skills requirement.
Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

STA 211(3) Course ID: 005196
Statistics: A Force in Human Judgement
Examines the interaction of the science and art of statistics in everyday life emphasizing examples from the social and behavioral sciences including the nature, scope, limitations, and interpretation of statistics. Pre-requisite: MAT 145 or MAT 150 or equivalent. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

STA 215(3) Course ID: 006938
Introduction to Statistical Reasoning
Introduction to descriptive statistics, normal distributions, linear correlation and regression, sampling, experiments, chance phenomena, one- and two-sample estimation and hypothesis testing, chi-square tests, and use of statistical software. Pre-requisites: Completion of all developmental requirements (reading, writing, and mathematics). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: University Course (Eastern Kentucky University)
SUR 100(12) Course ID: 002046
Surgical Technology Fundamentals Theory
Provides an overview of the history of surgery and the role of the surgical technologist, including professional responsibilities, developing a professional resume, legal and ethical considerations, interpersonal relationships and communication skills. Incorporates safety, hazards preparation, aseptic technique and duties of the scrubbed and the circulating surgical technologist during a surgical procedure. Provides information for the performance and completion of surgical procedures including general surgery, ob/gyn with attendant specialty equipment, abdominal incisions, wound closures, and standard precaution skills. Pre-requisite: Minimum C grade in (BIO 135 or BIO 137 and BIO 139]) and (AHS 115 or CLA 131 or MIT 103) and (BIO 225 or BIO 226 or BIO 227 or BIO 118); Current CPR certification for Healthcare Professionals. Co-requisite: SUR 101 and SUR 125 and SUR 130. Lecture: 12 credits (180 contact hours).
Components: Lecture
Attributes: Technical

SUR 101(2) Course ID: 002047
Surgical Technology Fundamentals Lab
Provides opportunity for demonstration of skills required to prepare the patient, operating room, basic equipment, and supplies; and to function as a member of an operating room team. Incorporates OSHA safety standards, aseptic technique, and duties of both the scrubbed and circulating technologist during a surgical procedure. Pre-requisite: Minimum "C" grade in (BIO 135 or BIO 137 and BIO 139]) and (AHS 115 or CLA 131 or OST 103) and (BIO 225 or BIO 226 or BIO 227 or BIO 118), Current CPR certification for Healthcare Professionals. Co-requisite: SUR 130. Pre-requisite or Co-requisite: SUR 100 or (SUR 109 and SUR 110). If pre-requisite, the student must achieve a grade of "C" or greater. Laboratory: 1.0 credit (90 contact hours).
Components: Laboratory
Attributes: Technical

SUR 109(3) Course ID: 005375
Introduction to Surgical Technology
Provides a brief overview of the history of surgery and an in-depth introduction of the role and responsibilities of the surgical technologists, an integral health care professional in the delivery of perioperative patient care and surgical services; including professional responsibilities, developing a professional resume, legal and ethical considerations, interpersonal relationships and communication skills. Introduces the basics of biomedical science and identifying information resources. Introduces all-hazards preparation for the surgical technologist, basic principles of aseptic technique, sterilization, surgical scrub, gown and gloving and basic instruments used in surgery along with correlating the impact of microbiology in relationship to the practice of sterile technique and infection control in the operative setting. Lecture: 3.5 credits (45 contact hours).
Components: Lecture

SUR 110(9) Course ID: 005470
Surgical Technology Fundamentals
Incorporates safety, aseptic technique and duties of the scrubbed and the circulating surgical technologist during a surgical procedure; Provides in-depth information for the successful preparation, performance, and completion of basic surgical procedures; Addresses specialty areas of general surgery, ob/gyn with attendant specialty equipment; Introduces the theory of abdominal incisions, wound closures, and standard precaution skills in each clinical assignment; Includes biomedical sciences of electricity, physics, and robotics as they pertain to surgical technology. Pre-requisite: Admission to Surgical Technology program, current CPR or BLS certification, SUR 109, AHS 115 or consent. Lecture: 9 credits (135 contact hours).
Components: Lecture
Attributes: Technical

SUR 125(2 - 3) Course ID: 002049
Surgical Technology Skills Practicum I
Provides experience in a healthcare setting performing the duties of a scrubbed and/or circulating technologist during an assigned surgical procedure with an emphasis on OSHA standards. Pre-requisite: Minimum C grade in SUR 101. Current CPR certification for Healthcare Professionals. Co-requisite: SUR 100 or (SUR 109 and 110). Pre-requisite or Co-requisite: SUR 130. Clinical: 2.0 - 3.0 credits (120 - 180 contact hours).
Components: Clinical
Attributes: Technical

SUR 130(2) Course ID: 002050
Principles of Surgical Pharmacology
Introduces the fundamental principles of the clinical use of drugs. Emphasizes the role and responsibility of the surgical technologist related to drugs, a review of basic mathematical skills, a thorough knowledge of the systems of measurement, and conversion and application of skills to perform dosage calculations. Presents information related to medicines in common use in the surgical setting. Pre-requisite: Minimum "C" grade in (BIO 135 or BIO 137 and BIO 139]) and (AHS 115 or CLA 131 or OST 103) and (BIO 225 or BIO 226 or BIO 227 or BIO 118); Current CPR certification for Healthcare Professionals. Co-requisite: SUR 100 - SUR 101. Co-requisite or Pre-requisite: SUR 125. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

SUR 200(9) Course ID: 002051
Surgical Technology Advanced Theory
Focuses on the relevant anatomy, indications for surgery, patient preparation, special equipment and supplies, purpose, expected outcomes, and possible complications of specialty areas following OSHA standards. Pre-requisite: Minimum grade of "C" in (SUR 100 or (SUR 109 and SUR 110)]) and SUR 125 and SUR 130. Co-requisite: SUR 201. Lecture: 9.0 credits (135 contact hours).
Components: Lecture
Attributes: Technical

SUR 201(6 - 7) Course ID: 002052
Surgical Technology Skills Practicum II
Provides an advanced experience in a healthcare setting performing the duties of a scrubbed and/or circulating technologist during an assigned surgical procedure with an emphasis on OSHA standards. Pre-requisite: Minimum grade of "C" in (SUR 100 or (SUR 109 and 110) and SUR 125 and SUR 130). Co-requisite: SUR 200. Clinical: 6.0 - 7.0 credits (360-420 contact hours).
Components: Clinical
Attributes: 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: Minimum grade of "C" in SUR 200 and SUR 201. Practicum: 2.0 credits (120 contact hours).
Components: Practicum
Attributes: Technical

SUR 280(5) Course ID: 004246
Department Consent Required
Surgical Anatomy
Provides accurate information about the structure and function of the human body. Intended for students who are pursuing a career as a Surgical First Assistant. Pre-requisite: Surgical Technology 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, cardiology, wound healing, nutrition perioperatively, fluid and electrolyte balance, and techniques in maintaining homeostasis. Pre-requisite: Program admission and student must be a certified Surgical Technologist or an RN with operating room experience. Student must provide current documentation of certification. Pre-requisite: SUR 280 & SUR 284 & SUR 295. Co-requisite: SUR 296. Lecture: 3 credits (45 contact hours).
Components: Lecture  Attributes: Technical

SUR 284(3)  Course ID: 004248  Principles of Surgical Assisting
Introduces the student to the theory involved in surgical assisting; Incorporates anatomy, surgical techniques, aseptic techniques, draping, positioning, suturing, safety, and duties of the surgical team. Pre-requisite: Program admission. Student must be a certified Surgical Technologist or an RN with operating room experience OR consent. Co-requisite: SUR 280 & SUR 295. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture  Attributes: Technical

SUR 295(1)  Course ID: 004250  Surgical First Assistant Clinical
Includes the performance of entry level duties of a surgical assistant in a clinical setting under the supervision of a qualified preceptor. Follows the Commission on Accreditation of Allied Health programs Surgical Assistant Core Curriculum related to the nature of the cases and the duties involved. Pre-requisite: Program admission. Co-requisite: SUR 280 and SUR 284. Clinical: 1 credit hour (45 contact hours).
Components: Clinical  Attributes: Technical

SUR 296(3)  Course ID: 006666  Surgical First Assistant Practicum
Involves advanced training in the preoperative, operative, and postoperative phases of surgery. Exposes student to wide variety of surgical procedures. Emphasizes surgical anatomy, along with critical thinking skills, in every surgical procedure under the supervision of a surgeon who is responsible for overseeing the clinical educational experience of the student. Pre-requisite: SUR 280, SUR 284 and SUR 295. Co-requisite: SUR 292. Practicum: 3.0 credits (270 contact hours).
Components: Practicum  Attributes: Technical

SUR 297(1)  Course ID: 016240  Surgical First Assistant Practicum II
Involves advanced training in the preoperative, operative, and postoperative phases of surgery. Exposes student to wide variety of surgical procedures. Emphasis on advanced anatomical knowledge that is applied towards the surgical diagnosis, along with critical thinking skills, in every surgical procedure under the supervision of a surgeon who is responsible for overseeing the clinical educational experience of the student. Pre-requisite: SUR 280, SUR 284, SUR 295, SUR 282, SUR 296. Practicum: 1 credit (90 contact hours)
Components: Practicum  Attributes: Technical

SUS 101(3)  Course ID: 016179  Introduction to Sustainability
Introduces the concept of sustainability and its varied interpretations; the core concepts in the study of sustainability. Provides an overview and perspective of issues in sustainability from multiple disciplines and viewpoints. Pre-requisite: Current KCTCS placement scores for College level reading and writing. Lecture: 3 credits (45 contact hours).
Components: Lecture  Attributes: Other

SUS 102(3)  Course ID: 016180  Sustainable Built Environment
Introduces the ideas of sustainability in the built environment, our history of construction and expansion, and buildings and how they interact with the natural environment. Explores issues from the perspective of sustainable planning, design, and construction issues across disciplines. Pre-requisite: Current KCTCS placement scores for College level reading and writing. Lecture: 3 credits (45 contact hours).
Components: Lecture  Attributes: Other

SUS 201(3)  Course ID: 016181  Sustainable Societies
Examines sustainability concepts, values, and institutional contexts as they are manifested in societal frameworks in the U.S., and globally. Includes topics such as urban agriculture, individual or community based environmental conservation efforts, corporate sustainability programs, as well as cultural and societal implications of resource allocations as they pertain to equity and social justice. Pre-requisite: Current KCTCS placement scores for College level reading and writing. Lecture: 3 credits (45 contact hours).
Components: Lecture  Attributes: Other

SUS 202(3)  Course ID: 016182  Sustainable Urban Systems
Investigates the physical and social urban infrastructure networks as they relate to sustainability. Examines the institutions, as well as the formal and informal rules, that use, manage, or govern urban physical and social infrastructures. Considers the role of private groups, non-profits, and other organizations and the networks and systems of support that exists for environmental and sustainable-oriented activity. Pre-requisite: SUS101 Intro. To Sustainability & SUS201 Sustainable Societies. Lecture: 3 credits (45 contact hours).
Components: Lecture  Attributes: Other

SWK 124(3)  Course ID: 000584  Introduction to Social Services
Introduces social welfare concepts and philosophies. Examines the profession of social work and its philosophy and value commitments within social welfare. Covers public and private service delivery systems. (Required of social work majors and recommended it be taken the first year.) Lecture: 2.0 credits; Lab: 2.0 credits.
Components: Laboratory, Lecture  Attributes: Technical

SWK 180(3)  Course ID: 000154  Introduction to Gerontology
The major biological, psychological, and sociological issues facing America's aging population are examined. Attention is also focused on the resources available to meet needs of older Americans. Lecture: 3 credits (45 contact hours).
Components: Lecture  Attributes: Technical

SWK 220(3)  Course ID: 000587  Cultural Diversity in Human Services
Explores current and historical cultural diversity in human services as it applies to clients from various cultural groups. Focuses on cultural self-awareness and cultural competence as it pertains to human services professionals and client helper relationships. Draws attention to dominant and minority cultural norms, attitudes and belief systems including the culture of poverty. Lecture: 3 credits (45 contact hours).
Components: Lecture  Course Equivalents: HMS 220  Attributes: Technical

SWK 222(3)  Course ID: 000484  Development of Social Welfare
Includes cultural traditions, value orientations, and political and economic forces which have contributed to the emergence of present social welfare policies and systems in the United States. (Required of social work majors and open to all others.) Lecture: 3.0 credits (45 contact hours).
Components: Lecture  Attributes: Technical

SWK 253(3)  Course ID: 005584  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: HMS 211  Attributes: Technical

SWK 260(3)  Course ID: 000586  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: HMS 212  Attributes: Technical

SWK 269(3)  Course ID: 000304  Juvenile Delinquency
The history, nature, and extent of juvenile delinquency are studied including an examination of trends and methods of treatment in contemporary society. Lecture: 3 credits (45 contact hours).
Components: Lecture  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

PSY 100 or PY 110 or permission from instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture  Attributes: Technical

SWK 218(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
Includes a review of grammar, usage, mechanics, technical reports, and proposals. Covers professional use of social media, websites, and other electronic resources.

Component: Lecture
Attributes: Other

THA 127(3) Acting Techniques
Uses movement exercises, sensory work, theatre games and basic stage combat exercises to heighten physical awareness, release personal blocks, and discover the experience of being truthful with fellow actors. Continues with students moving on to individual work to establish physical techniques they will use when working on a production. Provides an exploration of physical and emotional awareness and development of a more creative use of their imaginations. Lecture: 1.0 credit hour (15 contact hours); Lab: 2.0 credit hours (30 contact hours).

Pre-requisite: THA 126.
Components: Laboratory, Lecture
Attributes: Other

THA 141(3) Costuming & Make-up for the Stage
Develops an understanding of the basic elements of costume and make-up design and application. Lecture: 2.0 credits (30 contact hours); Lab: 1.0 credit (15 contact hours).

Components: Laboratory, Lecture
Attributes: Other, Pilot Course

THA 150(3) Fundamentals of Production
Includes a comprehensive study of the basic organizational structure, processes and techniques involved in theatre design, technology and management. Lecture: 3.0 credits (45 contact hours).

Attributes: Other, Pilot Course

THA 190(1) Instructor Consent Required Production Practicum
Provides study and practice of production techniques through rehearsal and performance. Practicum: 1.0 credit (45 contact hours).

Components: Practicum
Attributes: Technical

THA 191(1) Instructor Consent Required Performance Practicum
Provides study and practice of acting and directing through rehearsal and performance. Practicum: 1.0 credit (45 contact hours).

Components: Practicum
Attributes: Other

THA 212(1) Production Practicum
Provides study and practice of production techniques through rehearsal and performance. Practicum: 1.0 credit (45 contact hours).

Components: Practicum
Attributes: Other

THA 227(3) 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 228(3) 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); Laboratory: 1.0 credit hour (15 contact hours).

Components: Laboratory, Lecture
Attributes: Other

THA 250(3) 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 (30 contact hours).

Components: Laboratory, Lecture Attributes: Pilot Course, Technical

THA 260(3) Stagecraft
Provides a study of theory, principles and techniques of scenic design and construction. Includes assignments in practical applications. Lecture: 2.0 credit hours (30 contact hours); Laboratory: 0.5 credit hour (7.5 contact hours).

Components: Laboratory, Lecture Attributes: Technical

Course Descriptions

TA Theatre

TA 195(1 - 3) Instructor Consent Required
Special Projects in Theatre Arts (Project Title)
Projects in Theatre Arts that are not otherwise covered by or extend beyond the scope of TA 190, TA 191 or other theatre arts course offerings. Projects may include, but are not limited to, practical application of techniques in special circumstances; special theatre hours; research projects that will be used as the basis of a practical application project; or theatrical workshop projects designed to cover a special area of practice. Projects will be selected by the instructor and may be repeated with different titles for up to six credit hours. Lecture: 1-3 credits (15-45 contact hours); Laboratory: 1-3 credits (60-180 contact hours).

Pre-requisite: Consent of Instructor.
Components: Laboratory, Lecture
Attributes: Other

TA 264(3) Makeup for the Theatre
Theory and practice in the principles, materials and application of makeup. Lecture, two hours; laboratory, two hours. Pre-requisite: TA 150 or consent of instructor.
Components: Laboratory, Lecture
Attributes: Other

TEC Technical Communication

TEC 10(3) Developmental Writing for the Workplace
This course is designed to allow students to survey grammar and punctuation skills, which are essential to writing. Emphasis is on clarity and exactness as required to communicate effectively in today’s workplace. Pre-requisite: None
Components: Lecture
Attributes: Remedial - English

TEC 200(3) Technical Communications
Focuses on written and oral communications in a technical environment, including a review of grammar, usage, mechanics, and punctuation. Emphasizes preparing business communications such as letters and application materials, creating technical reports and sets of instructions, creating proposals or presentation materials, and developing appropriate technical communication styles for various audiences. Covers professional use of email, social media, websites, and other electronic resources.
Pre-requisite: Placement in college level writing or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other

TEC 200(1) Technical Communication Basics
Covers basic principles of technical communication, including definition of technical communication, audience analysis and adaptation, technical communication style, research strategies, creation of visual aids, appropriate use of social media, websites, and other electronic resources. Includes a review of grammar, usage, mechanics and punctuation. Pre-requisites: Placement in college level writing or Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

TEC 200(2) Communication Applications
Emphasizes preparing business communications in a technical environment such as sets of instructions, technical reports, and proposals. Covers professional use of email. Includes a review of grammar, usage, mechanics, and punctuation. Pre-requisite: TEC 2001. Lecture: 1 credit (15 contact hours).

Components: Lecture

Course ID: 004554
Course ID: 002268
Course ID: 002071
Course ID: 002073
Course ID: 016244
Course ID: 016245
Course ID: 000031
Course ID: 000825
Course ID: 006781
Course ID: 002265
Course ID: 000874
Course ID: 000974
Course ID: 002264
Course ID: 002674
Course ID: 000031

UPH Upholstery

UPH 100(3) Introduction to Upholstery
This course introduces the student to the variety of careers in the upholstery business and provides an overview of the industry including furniture manufacturing, furniture reupholstery and repair and employment opportunities. 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: CSS Permit.
Components: Laboratory, Lecture
Attributes: Technical

UPH 101(1) Introduction to Upholstery Lab
This course provides practical experience in the use of tools, equipment, and techniques of the upholstery industry. Laboratory: 1 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

UPH 110(3) Upholstery Fabrics and Materials
This course introduces the student to various materials used in upholstering, the techniques for using each material, selection of upholstery fabrics and details concerning the usage of each fabric.
Components: Lecture
Attributes: Technical

UPH 111(1) Upholstery Fabrics and Materials Lab
This course provides practical experience in the use of upholstery fabrics, material and equipment. Laboratory: 1 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

UPH 120(1) Furniture Preparation
This course introduces the student to the various techniques used in the stripping and repair of furniture frames and to the installation of webbing and springs. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical

UPH 121(2) Furniture Preparation Lab
This course provides practical experience in the use of various techniques used in the stripping and repairing of furniture frames and to the installation of webbing and springs. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical
VCA 240(3) Course ID: 002123
Package Design
Explores the development of brand identity as it relates to packaging. Introduces concepts, theories, terminology, design, and production of hard and soft wall three-dimensional packaging and product labels. Emphasizes creative problem solving and legal requirements for the packaging industry. Students must receive a letter grade of "C" or better. Pre-requisite: VCC 125 and VCC 110. Lecture: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCA 250(3) Course ID: 004553
Advertising Design
Explores and reviews the role of advertising in the marketing mix, and the function of major media forms. Uses a creative brief process to research, create, and design promotional concepts that meet assignment specifications. Explores legal strategies involved in advertising. Students must receive a letter grade of "C" or better. Pre-requisite: VCC 125 and VCC 110. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCA 251(3) Course ID: 005384
Digital Filmmaking III
Provides training in single-person video production within an emphasis on Electronic News Gathering style of video. Covers news, interviews, TV commercials, and documentaries. Pre-requisite: VCA 152 with a grade of C or better or Consent of Instructor. Pre-requisite or Co-requisite: VCA 160 with a grade of C or better or Consent of Instructor. Lecture: 2 credits (30 contact hours), Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

VCA 252(3) Course ID: 005385
Digital Filmmaking IV
Provides training in multi-person video production with an emphasis on Film-Style video production, storytelling, TV commercials, and documentaries. Pre-requisite: VCA 251 with a grade of C or better or Consent of Instructor. Lecture: 2.0 credits (30 contact hours), Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

VCA 255(3) Course ID: 002120
Corporate Design
Creates and develops a total corporate identity emphasizing relationships between adequate research and development of appropriate concepts for a company image. Students must receive a letter grade of "C" or better. Pre-requisite: VCC 125 and VCC 110. Lecture: 1.0 credit (15 contact hours), Lab: 2.0 credits (75 contact hours/37.5:1 ratio).
Components: Lecture Attributes: Technical

VCA 260(4) Course ID: 000208
Commercial Photography III
Continues Commercial Photography II. Applies principles and techniques with emphasis on digital 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 270(4) Course ID: 000214
Advertising Design III
Emphasizes computer design and layout based on extensive use of the industry standard page layout and drawing programs; and critical thinking for problem solving, preparation, and production of electronic artwork. Pre-requisite: VCA 171 with a grade of C or greater or Consent of Instructor. Lecture: 2 credits (30 contact hours), Laboratory: 2 credits (60 contact hours/30:1 ratio).
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 280(3) Course ID: 002126
Instructor Consent Required
Professional Portfolio Development
Introduces students to proper assembly of a professional portfolio and presentation skills. Students will refine work created in previous classes, identify strengths and weaknesses in their work, create a self-promotional package, attend mock interviews and participate in portfolio exhibit. Students must receive a letter grade of "C" to successfully complete this course. Pre-requisite: Permission of Instructor. Lecture: 1.0 credit (15 contact hours), Lab: 2.0 credits (75 contact hours/37.5:1 ratio).
Components: Laboratory, Lecture Attributes: Technical

VCA 290(2 - 6) Course ID: 000205
Practicum
Incorporates and applies skills and techniques previously learned in the classroom and commercial art laboratory. Provides practical experience in a variety of commercial art establishments in the community. Prerequisite: VCA 280, VCA 261 or VCA 271 with a grade of C or greater or Consent of Instructor. Lecture: 1 credits (15 contact hours), Lab/Practicum: 3 credits (150 contact hours/50:1 ratio).
Components: Laboratory, Lecture Attributes: Technical

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: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

VCC 105(3) Course ID: 004458
Fundamentals of Typography
Explores the use of type as a major element of design. Students become skilled in selecting appropriate type styles and fonts for a variety of media. Provides experience in using type as a creative tool to produce interesting, type-only designs. Introduces the elements and principles of design. Students must receive a letter grade of "C" or better. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

VCC 110(3) Course ID: 002111
Graphic Design Concepts
Explores in detail the elements and principles of design to develop excellent skills in producing creative ideas and effective designs for various media forms. Provides an opportunity to apply concepts in the process of design. Emphasis on the importance of project planning and research. Students must receive a letter grade of "C" or better. Pre-requisite or Co-requisite: VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCC 115(3) Course ID: 005141
Strategic Concepts
Introduces advertising, promotion, creative and marketing concepts related to the visual communication field. Topics also include legal issues, media strategy, and consumer behavior. Students must receive a letter grade of "C" or better. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

VCC 125(3) Course ID: 006859
Introduction to Computer Graphics
Introduces students to computer applications that are specific to the visual communication industry. Develops primary skills using software applications for page layout, illustration and digital imaging. Students must complete with a letter grade of "C" or better. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCC 150(3) Course ID: 004475
Mac Basics
Provides an introduction to Apple/Mac computer technology. Emphasizes industry specific needs, including hardware and software. Presents basic uses of the Internet, email, file management and computer ethics. This course fulfills the computer/digital literacy requirement. Students must receive a letter grade of "C" or better. Basic keyboarding recommended. Pre-requisite: RDG 020. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Digital Literacy

VCC 166(3) Course ID: 001510
Photoshop Basics
Develops skills to digitally manipulate, enhance, and create composite photographs. Introduces raster graphics and their use in the visual communication industry. Creation and manipulation of graphics from simple to increasingly complex images and designs will be the focus of this course. Students must receive a letter grade of "C" or better. Pre-requisite: Digital Literacy. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCC 200(3) Course ID: 002124
Computer Illustration
Develops skills in computer illustration and drawing using industry standard software. Introduces vector graphics and their uses in the visual communication industry. Creation of vector graphics from simple to increasingly complex designs will be the focus of this course. Students must receive a letter grade of "C" or better. Pre-requisite: Digital Literacy. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCC 205(3) Course ID: 004454
Introduction to HTML
Introduces the creation of Web sites using hypertext markup language (HTML) and cascading style sheets (CSS). Students must receive a letter grade of "C" or better. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical
VCC 210(3) Course ID: 002125
Advanced Computer Illustration
Provides students with advanced knowledge and skills in computer illustration. Creation of vector graphics and complex designs will be the focus of this course. Students must receive a letter grade of “C” or better. Pre-requisite or Co-requisite: VCC 200. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

VCC 212(3) Course ID: 005589
Vinyl Graphics and Applications
Introduces concepts, vocabulary, and processes used in relation to the design and production of graphics for the sign industry. Provides knowledge in the operation of wide format printers and vinyl cutter/plotters to create special graphics used for indoor and outdoor advertising. Covers the procedures used to prepare vinyl graphics and substrates for different applications. Students must receive a letter grade of “C” or better. Pre-requisite or Co-requisite: VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

VCC 214(3) Course ID: 005731
Dye-Sublimation Process
Provides knowledge in the dye-sublimation process and special inks. Students gain skills to produce designs used on various promotional materials and the operation of heat transfer equipment, software packages and dye-sublimation printers. Students must receive a letter grade of “C” or better. Pre-requisite or Co-requisite: VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

VCC 216(3) Course ID: 006860
Pad Printing
Introduces students to the technology of pad printing. Includes the set-up and operation of pad printing equipment, including registration, creating molds, artwork preparation, plate preparation, and using inks and substrates to produce quality promotional products to specification. Students must complete with a letter grade of “C” or better. Pre-requisite or Co-requisite: VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

VCC 218(3) Course ID: 006861
Digital Printing
Provides basic knowledge of the steps and procedures used to prepare files for digital printing. Provides instruction on basic set-up and operation of a variety of digital printing equipment available in the lab. Provides basic knowledge used to troubleshoot, correct, and prepare digital files for printing. Provides students with the basic skills to produce and utilize PDF documents. Provides knowledge in the importance imposition and page-layout of various publications. Develops skills in the ability to design digital printed materials from start to finish to customer specifications including the set-up and operation of finishing and binding equipment. Students must receive a letter grade of “C” or better. Pre-requisite: VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

VCC 220(3) Instructor Consent Required
InDesign Basics
Develops skills in page design and layout using Adobe InDesign software. Students will understand apply concepts and mechanics of page layout to produce various publications using graphic design concepts learned. Students must receive a letter grade of “C” or better. Pre-requisite: Digital Literacy. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

VCC 230(3) Instructor Consent Required
Advanced InDesign
Provides advanced skills in page design and layout using Adobe InDesign software. Design and creation of a variety of complex and multi-page documents will be the focus of this course. Students must receive a letter grade of “C” or better. Pre-requisite: VCC 220. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

VCC 260(3) Course ID: 001509
Publication Design
Provides advanced knowledge of designing publications for the print media using a combination of Adobe InDesign, Photoshop and Illustrator. Creation of a variety of complex and multi-page documents will be the focus of this course. Students must receive a letter grade of “C” or better. Pre-requisite: VCC 110 and VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

VCC 266(3) Course ID: 005142
Advanced Photoshop
Develops advanced skills to digitally manipulate, enhance, and create composite photographs. Applies advanced principles, concepts, and techniques for graphic design and digital photography. Creation and manipulation of graphics for complex images and designs will be the focus of this course. Students must receive a letter grade of “C” or better. Pre-requisite: VCC 160. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

VCC 270(3) Acrobat Basics
Provides students with the basic skills using Adobe Acrobat to produce and utilize PDF documents. Students must receive a letter grade of “C” or better. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

VCC 297(3) Instructor Consent Required
Internship
Provides supervised on-the-job work experience related to the students educational objectives. Students participating in Internships do not receive compensation for their work. Co-Op/Internship: 3 credits (180 contact hours). Pre-requisite: Permission of Instructor.
Components: Co-Op
Attributes: Technical

VCC 298(3) Instructor Consent Required
Practicum
Provides supervised on-the-job work experience related to the student’s educational objectives. Student participating in the Practicum do not receive compensation. Practicum/ Internship: 3 credits (180 contact hours). Pre-requisite: Permission of Instructor.
Components: Practicum
Attributes: Technical

VCM 110(3) Fundamentals of Animation
Explores the fundamentals of 2-D animation through history, theory and practical application. Covers the basic concepts of animation, including: character design and development, character environment, and storyboarding. Students must receive a letter grade of “C” or better. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

VCM 115(3) 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) Foundations of Video Production
Introduces students to the basics of video production and animation. Includes screenwriting, storyboards, and planning a video production and animation project. Familiarizes students with video, lighting, and sound equipment. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

VCM 140(3) Digital Video
Presents techniques for digital audio and video acquisition, equipment, and editing software. Emphasis on planning and creating storyboards for digital video production from conception to final product. Students must receive a letter grade of “C” or better. Pre-requisite or Co-requisite: VCM 125. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

VCM 210(3) Course ID: 004344
3-D Animation
Introduces the principles of animation. Uses commercial 3-D animation packages and storyboards to produce 3-D models and animations. Students must receive a letter grade of “C” or better. Pre-requisite or Co-requisite: VCM 115. Lecture: 1.0 credit (15 contact hours), Lab: 2.0 credits (75 contact hours).
Components: Lecture
Attributes: Technical

VCM 215(3) Course ID: 005143
After Effects
Introduces basic compositing techniques and motion graphics using Adobe After Effects. Emphasizes an understanding of pre-production for After Effects, green screen, lighting, key-framing, creating mattes, animating text, syncing to audio and exporting movies. Students must receive a letter grade of “C” or better. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

VCM 220(3) Course ID: 001767
Webpage Design
Introduces students to principles and elements used in web design. Explores basic web design tools such as mark-up languages, cascading style sheet, and web authoring software. Identifies fundamentals including website layout, navigation, font usage, color schemes, and site structure to create visually-pleasing websites. Students must receive a letter grade of “C” or better. Lecture: 1.0 credit (15 contact hours), Lab: 2.0 credits (75 contact hours/37.5:1 ratio).
Components: Laboratory, Lecture
Attributes: Technical

VCM 225(3) Course ID: 005732
Advanced 3-D Animation
Familiarizes students with advanced techniques of computer animation. Covers the production of 3-D animations using advanced lighting and rendering tools, inverse kinematics, and dynamic scene elements. Students must receive a letter grade of “C” or better. Pre-requisite or Co-requisite: VCM 210. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

VCM Visual Communications Multimedia

VCM 110(3) Fundamentals of Animation
Explores the fundamentals of 2-D animation through history, theory and practical application. Covers the basic concepts of animation, including: character design and development, character environment, and storyboarding. Students must receive a letter grade of “C” or better. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
Advanced Webpage Design
Introduces aesthetic, navigational, accessibility, usability, and interactivity issues for web designers. Pre-requisite: VCM 220 with a grade of C or better or Consent of Instructor. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (75 contact hours).

Course Attributes: Technical
Components: Lecture, Laboratory

Advanced Digital Video
Emphasizes planning and creation of digital video projects through a non-linear editing environment. The focus of this course. 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).

Course Attributes: Technical
Components: Laboratory, Lecture

BIO 113. Lecture/Lab: 5.0 credits (135 contact hours).

VCM 240(3) Course ID: 004456
Advanced Digital Video
Emphasizes planning and creation of digital video projects through a non-linear editing environment. The focus of this course. Deploys audio/video content through various delivery systems. Students must receive a letter grade of "C" or better. Pre-requisite: VCM 140. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (75 contact hours/37.5:1 ratio).

Course Attributes: Technical
Components: Laboratory, Lecture

VCM 250(3) Course ID: 005795
Screen Printing
Includes how to identify and perform the proper methods of the operations of a screen printing process, including registration, placement, screen preparation, artwork preparation, and using inks and substrates to produce quality screen printed products to specification. Students must receive a letter grade of "C" or better. Pre-requisite: VCC 125 or VCC 166. Lecture/Lab: 3.0 credits (90 contact hours).

Course Attributes: Technical
Components: Lecture, Laboratory

VCP 255(3) Course ID: 001508 Instructor Consent Required
Special Topics Lab
This course provides the student with additional hands-on experience. Topic will be specified by instructor. Laboratory: 3 credits (45 contact hours). Course may be scheduled a maximum of three times, with a total of 9 credit hours/135 clock hours. Pre-requisite: Permission of Instructor.

Course Attributes: Technical
Components: Laboratory

VCP 285(3) Course ID: 004536 Instructor Consent Required
Electronic Prepress
This is a capstone course designed to address the multiple applications of a Digital Production Artist in Visual Communication. Pre-requisite: Permission of Instructor. Laboratory: 3 credits (90 contact hours/30:1 ratio).

Course Attributes: Technical
Components: Laboratory

VET 110(5) Course ID: 007425
Introduction to Veterinary Technology
Introduces students to veterinary medicine and technology through the lecture component covering hospital operation, professional standards, and ethics. The course introduces the study of breeds and strains of domesticated animals and the basic concepts of animal behavior. Studies the nature and form of medicines and the calculation of dose and dosages. The lab component teaches and reinforces restraint techniques; lab procedures, equipment identification, medical terminology, and medication administration; and small animal nutrition. Co-requisite: AGR 240; BIO 112; BIO113. Lecture/Lab: 5.0 credits (135 contact hours).

Course Attributes: Technical
Components: Lecture, Laboratory

VET 112(4) Course ID: 007426
Veterinary Microbiology
Examines the characteristics of microorganisms and their relationships to animal health and diseases. Introduces fundamental microbiological principles and laboratory techniques. Pre-requisite: BIO 112, BIO 113, and VET 110. Lecture/Lab: 4.0 credits (90 contact hours).

Course Attributes: Technical
Components: Lecture

VET 114(5) Course ID: 007427
Animal Anatomy and Physiology
Provides a functional integration of basic science and clinical information as it relates to animals in an integrated lecture and laboratory approach, employing the organ system approach, using domestic and laboratory animals as models to discuss anatomy and physiology. Utilizes preserved animal specimens, fresh and preserved, as well as skeletons and models, in the laboratory to reinforce course concepts. Pre-requisite: VET 110. Co-requisite: VET 112. Lecture/Lab: 5.0 credits (135 contact hours).

Course Attributes: Technical
Components: Lecture

VET 120(2) Course ID: 007428
Clinical Practicum I
Provides practical experience in veterinary clinics and/or related facilities; students complete an average of approximately 12 hours of clinical practicum per week. Pre-requisite: VET 110, 112, and 114. Co-requisite: VET 130. Clinical: 2.0 credits (96 contact hours).

Course Attributes: Technical
Components: Clinical

VET 130(5) Course ID: 007429
Veterinary Lab Procedures I
Introduces the student to essential nursing skills, covers surgical nursing concepts, small and large animal medical nursing, aseptic technique, and surgical instrumentation. The lab component prepares the student to assist the veterinarian in performing surgery by introducing anesthesia and operation of the anesthesia machine and nursing procedures during the surgical process. Introduces radiographic procedures and covers dental prophylaxis, recognition of dental abnormalities, and charting. Pre-requisite: VET 110, 112, and 114. Co-requisite: VET 120. Lecture/Lab: 5.0 credits (135 contact hours).

Course Attributes: Technical
Components: Lecture

VET 201(3) Course ID: 007430
Pharmacology
Introduces the major drug classifications, covers the use and control of drugs, measurements and conversion factors, and methods of drug action and interaction used in small and large animal practice. Pre-requisite: VET 120 and VET 130. Co-requisite: VET 220 and VET 230. Lecture: 3.0 credits (45 contact hours).

Course Attributes: Technical
Components: Lecture

VET 220(5) Course ID: 007431
Parasitology and Clinical Lab
Covers the study of internal and external parasites of companion, exotic, and farm animals. Life cycles, diagnostic protocol, control, and treatment of the most common parasites will be discussed. Familiarizes students with laboratory techniques performed in veterinary hospitals and clinics. Examination and testing of blood, feces, urine, and exudates are performed for diagnostic and prognostic purposes. Development of skills necessary to maintain a safe laboratory working environment, institute quality control programs, collect, process, store, and transport clinical biological specimens. Pre-requisite: VET 120 and VET 130. Co-requisite: VET 210 and VET 230. Lecture/Lab: 5.0 credits (135 contact hours).

Course Attributes: Technical
Components: Lecture

VET 230(5) Course ID: 007432
Veterinary Lab Procedures II
Covers development, treatment, prevention, and control of infectious and non-infectious diseases. Develops skills in surgical nursing, anesthesia monitoring, critical care, emergency medicine, and radiographic techniques. Pre-requisite: VET 120 and VET 130. Co-requisite: VET 210 and VET 220. Lecture/Lab: 5.0 credits (135 contact hours).

Course Attributes: Technical
Components: Lecture

VET 240(5) Course ID: 007433
Veterinary Lab Procedures III
Emphasizes lab animal care, advanced radiographic techniques, ultrasound, and clinical pathology, this course as a continuation of VET 230. Refine skills introduced in previous courses. Uses field trips to veterinary and research facilities when appropriate. Pre-requisite: VET 210, VET 220, and VET 230. Co-requisite: AGR 280 and VET 250. Lecture/Lab: 5.0 credits (135 contact hours).

Course Attributes: Technical
Components: Lecture

VET 250(5) Course ID: 007434
Clinical Practicum II
Provides practical experience in veterinary hospitals, clinics, and/or related facilities; students complete an average of 16 hours per week. Pre-requisite: VET 210, VET 220, and VET 230. Co-requisite: VET 240. Clinical: 5.0 credits (240 contact hours).

Course Attributes: Technical
Components: Clinical

VMI 200(4) Course ID: 005199
Sectional Anatomy & Pathology I
The anatomy of the human body will be examined through cross-sectional images from cadavers and CT/MR images. Emphasis will be placed on identifying anatomical landmarks and describing relative anatomical location within appropriate medical terminology. Topics include: head, neck, spine, thorax, abdomen, pelvis, and upper and lower extremities. Some pathology will be introduced. Lecture: 3 credits (45 contact hours). Laboratory: 1 credit (30 contact hours). Pre-requisite: BIO 137 and BIO 139. Components: Laboratory, Lecture

Course Attributes: Technical

VMI 201(4) Course ID: 005200
Sectional Anatomy & Pathology II
Continuation of Sectional Anatomy and Pathology I with an emphasis on pathology. Topics include oncology, orthopedics, angiography, and endoscopy. Case studies utilized to demonstrate anatomical location and identification of normal/pathologic tissue. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (30 contact hours). Pre-requisite: VMI 200.

Components: Laboratory, Lecture

Course Attributes: Technical

VMI 210(4) Course ID: 005201
Volumetric Medical Imaging I
Software-based course designed to introduce radiological computer post-processing. Mastery of basic functions enable students to perform reconstruction, segmentation, annotation and analysis of images. Data management and communication will be emphasized throughout the course. Lecture: 1 credit (15 contact hours); Laboratory: 3 credits (90 contact hours). Pre-requisite: VMI 200 or concurrent. Components: Laboratory, Lecture

Course Attributes: Technical

VMI 211(4) Course ID: 005202
Volumetric Medical Imaging II
Continuation of Volumetric Medical Imaging I focusing on case studies and standard protocols. Students will complete an assigned case study and present it in class. Competency in advanced topics will include axial manipulations, animations and monitoring pathology. Health Insurance Portability and Accountability Act (HIPAA) compliance issues will be addressed. Lecture: 1 credit (15 contact hours); Laboratory: 3 credits (90 contact hours). Pre-requisite: VMI 201 or concurrent. Components: Laboratory, Lecture

Course Attributes: Technical
WLD 100(2) Course ID: 004575
Oxy-Fuel Systems
A working knowledge of oxy-fuel identification, set-up, inspection, and maintenance; consumable identification, selection and care; principles of operation; and effects of variables for manual and mechanized oxy-fuel cutting, welding, braze principles and practices, and metallurgy. Shop safety and equipment use are also covered. Lecture: 2 credits (30 contact hours). Co-requisite: WLD 101 or Consent of Instructor.
Components: Lecture Attributes: Technical

WLD 101(2) Course ID: 004576
Oxy-Fuel Systems Lab
Manipulative skills necessary to weld and cut plate and pipe in all positions, as well as braze, brazing, welding, and gouging. Lab: 2 credits (60 contact hours/30:1 ratio). Co-requisite: WLD 100 or Consent of Instructor.
Components: Laboratory Attributes: Technical

WLD 110(2) Course ID: 004605
Cutting Processes
A working knowledge of various cutting processes used by the welding industry. Will include, but is not limited to, safety, theory of operation, setup and operating techniques, troubleshooting and making minor equipment repairs, terms and definitions, identification, evaluation, repair and prevention of discontinuities of cut surfaces. Includes oxy-fuel cutting, plasma arc cutting, exothermic cutting, air carbon arc cutting, shielded metal arc cutting, and mechanical cutting process. Lecture: 2 credits (30 contact hours). Co-requisite: WLD 111 or Consent of Instructor.
Components: Lecture Attributes: Technical

WLD 111(3) Course ID: 004577
Cutting Processes Lab
Designed to provide the student with practical experience to become proficient in the use of various metal cutting processes. Safety, setup, and operating techniques are employed. Students will troubleshoot and make minor repairs to equipment. Students will also learn to identify, repair, and prevent reoccurrence of cut surface discontinuities. Processes shall include, but not limited to: OFC, PAC, AAC, and mechanical methods. Various materials will be used where appropriate. Lab: 3 credits (90 contact hours/30:1 ratio). Co-requisite: WLD 110 or Consent of Instructor.
Components: Laboratory Attributes: Technical

WLD 120(2) Course ID: 004600
Shielded Metal Arc Welding
Teaches students the identification, inspection, and maintenance of SMAW electrodes; principles of SMAW; the effects of variables on the SMAW process to weld plate and pipe; and metallurgy. Lecture: 2 credits (30 contact hours). Co-requisite: WLD 121 or Consent of Instructor.
Components: Lecture Attributes: Technical

WLD 121(3) Course ID: 004578
Shielded Metal Arc Welding Fillet Lab
Provides laboratory experiences in which the student acquires the manipulative skills to perform fillet welds in all positions. Lab: 3 credits (90 contact hours/30:1 ratio). Co-requisite: WLD 120 or Consent of Instructor.
Components: Laboratory Attributes: Technical

WLD 123(3) Course ID: 004599
Shielded Metal Arc Welding Groove with Backing Lab
Provides experiences in which students acquire the manipulative skills to do groove welds in all positions with backing. Laboratory: 3 credits (90 contact hours/30:1 ratio). Pre-requisite: WLD 120 and 121 or Consent of Instructor.
Components: Laboratory Attributes: Technical

WLD 130(2) Course ID: 004579
Gas Tungsten Arc Welding
Identification, inspection, and maintenance of GTAW machines; identification, selection and storage of GTAW electrodes; principles of GTAW; the effects of variables on the GTAW process; and metallurgy. This course also teaches the theory and application of Plasma Arc Cutting. Co-requisite: WLD 131 or Consent of Instructor. Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Technical

WLD 131(3) Course ID: 004580
Gas Tungsten Arc Welding Fillet Lab
Teaches the necessary manipulative skills needed to apply the Gas Tungsten Arc on various joint designs on plate with both ferrous and non-ferrous metals. Plasma Arc cutting included. Co-requisite: WLD 130 or Consent of Instructor. Laboratory: 3 credits (90 contact hours/30:1 ratio).
Components: Laboratory Attributes: Technical

WLD 133(3) Course ID: 004581
Gas Tungsten Arc Welding Groove Lab
Teaches the method of operation and application of the gas tungsten arc welding process for welding groove welds in both ferrous and non-ferrous plate in all positions. Pre-requisite: WLD 130 or Consent of Instructor. Laboratory: 3 credits (90 contact hours/30:1 ratio).
Components: Laboratory Attributes: Technical

WLD 140(2) Course ID: 004582
Gas Metal Arc Welding
Identification, inspection, and maintenance of GMAW machines; identification, selection, and storage of GMAW electrodes; principles of GMAW; and the effects of variables on the GMAW process. Theory and applications of related processes such as FCAW and SAW and metallurgy are also included. Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Technical

WLD 141(3) Course ID: 004583
Gas Metal Arc Welding Fillet Lab
Teaches the practical application and manipulative skills of Gas Metal Arc Welding and the proper safety situations needed in this process. Both ferrous and non-ferrous metals will be covered, as well as various joint designs on plate in all positions. Co-requisite: WLD 140 or Consent of Instructor. Laboratory: 3 credits (90 contact hours/30:1 ratio).
Components: Laboratory Attributes: Technical

WLD 143(3) Course ID: 004584
Gas Metal Arc Welding Groove Lab
Teaches the method of operation and application of the gas metal arc welding process for welding groove welds in both ferrous and non-ferrous plate in all positions using both short circuiting and spray transfer where appropriate. Pre-requisite: WLD 140 or Consent of Instructor. Laboratory: 3 credits (90 contact hours/30:1 ratio).
Components: Laboratory Attributes: Technical

WLD 145(1) Course ID: 004586
Gas Metal Arc Welding Aluminum Lab
Teaches welding aluminum using the GMAW process. Fillets and groove welds are made in all positions in both plate and pipe. Short Circuiting and Spray transfers are used where appropriate. Pre-requisite: WLD 140 or Consent of Instructor. Laboratory: 1 credit (30 contact hours/30:1 ratio).
Components: Laboratory Attributes: Technical

WLD 147(1) Course ID: 004585
Flux Cored Arc Welding Lab
Acquaints the student with the method of operation and application of the flux cored welding system. Pre-requisite: WLD 140 or Consent of Instructor. Laboratory: 1 credit (30 contact hours/30:1 ratio).
Components: Laboratory Attributes: Technical

WLD 152(5) Course ID: 004441
Basic Welding B
An introduction to common cutting and welding processes used in industry. Theory, setup, operation, and related safety are applied. Lecture: 1 credit (15 contact hours). Laboratory: 1 credit (30 contact hours/30:1 ratio).
Components: Laboratory, Lecture Attributes: Technical

WLD 161(1) Course ID: 004602
Submerged Arc Welding Lab
Designed to provide the student with a working knowledge of SAW set-up, maintenance, and consumable identification. Includes practice in basic SAW principles and techniques related to the field of study. Laboratory: 1 credit (30 contact hours/30:1 ratio). Pre-requisite: WLD 140 or Consent of Instructor.
Components: Laboratory Attributes: Technical

WLD 170(2) Course ID: 004587
Blueprint Reading for Welding
Provides a study of occupationally specific prints for welders. Advanced study of multi-view drawings, assembly drawings, datum dimensions, numerical control drawings, sheet metal prints, castings and forgings, instrumentation and control charts and diagrams, working drawings, geometric dimensioning and tolerancing and use of reference materials and books are included. Occupational specifics including welding drawings, symbols, joint types, grooves, pipe welding symbols, testing symbols and specification interpretations are stressed. Lecture: 2 credits (30 contact hours). Co-requisite: WLD 171 or Consent of Instructor.
Components: Lecture Attributes: Technical
WLD 171(3)  Course ID: 004588  
Blueprint Reading for Welding Lab  
Provides students with practice fabricating from a blueprint. Students will read and fabricate from detail prints, control distortion during fabrication, and follow the proper sequence in welding a fabricated part. Students will use welding symbols and study weld sizes and strengths. Lab: 3 credits (90 contact hours/30:1 ratio). Co-requisite: WLD 170 or Consent of Instructor.  
Components: Laboratory  
Attributes: Technical

WLD 198(1 - 6)  Course ID: 004573  Instructor  
Consent Required  
Special Topics in Welding  
Various Welding Technology topics, issues and trends will be addressed. Topics may vary from semester to semester at the discretion of the instructor; course may be repeated with different topics to a maximum of six credit hours.  
Lecture: Various. Laboratory: Varies. Pre-requisite: Consent of instructor.  
Components: Lecture  
Attributes: Technical

WLD 220(2)  Course ID: 004589  
Welding Certification  
Provides the student with a working knowledge of certification encountered in welding. The student will start with developing a WPS, qualify the WPS, and qualify personnel. Documents used in welding certification are developed and used. Co-requisite: WLD 221 or Consent of Instructor.  
Lecture: 2 credits (30 contact hours).  
Components: Lecture  
Attributes: Technical

WLD 221(3)  Course ID: 004590  
Welding Certification Lab  
Provides students an opportunity to test on all types of welding for certification standards. Laboratory: 3 credits (90 contact hours/30:1 ratio). Co-requisite: WLD 220 or Consent of Instructor.  
Components: Laboratory  
Attributes: Technical

WLD 225(3)  Course ID: 004591  
Shielded Metal Arc Welding Open Groove Lab  
Designed to build upon SMAW Plate Lab I & II. Offers the student the opportunity to advance skills in the practical aspects of vee-butt plate welding using SMAW. Lab: 3 credits (90 contact hours/30:1 ratio). 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 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 240(2)  Course ID: 004596  
Materials Technology  
Provides the student with a working knowledge of materials used in welding. This class includes materials identification and classification. Metallurgy is included with a detailed analysis of physical, mechanical, and chemical properties. Introduces the student to the application of metallurgy to welding including preheat, interpass temperature, and post-weld heat treatment and their effects on welding and welding’s effect on them. Lecture: 2 credits (30 contact hours)  
Components: Lecture  
Attributes: Technical

WLD 245(3)  Course ID: 004604  
Gas Metal Arc Welding Pipe Lab A  
Acquaints the student with the operation and application of the Gas Metal Arc System for welding 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)  Course ID: 004608  
Welding Automation Lab  
Provides the student a working knowledge and hands-on experience using automatic welding equipment such as robotic welding systems, bug-o systems, and automated GTA welding systems. Lab: 1 contact (30 contact hours/30:1 ratio).  
Components: Laboratory  
Attributes: Technical

WLD 253(1)  Course ID: 004607  
Pipe Fitting and Template Development Lab  
Provides experiences in pipe template development and job knowledge and experience with the techniques and tools used to field layout, cut, and fit the various pipe joints that are used in pipe trades. Lab: 1 credit (30 contact hours/30:1 ratio).  
Components: Laboratory  
Attributes: Technical

WLD 298(1 - 6)  Course ID: 004443  Instructor Consent Required  
Welding Practicum  
Provides on-the-job work experience related to the student’s educational objectives. Students participating in the Practicum do not receive compensation. Laboratory: 1-6 credits (30-180 contact hours/30:1 ratio). Pre-requisite: Consent of Instructor.  
Components: Practicum  
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.  
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 Wood Manufacturing Technology  
Course Descriptions
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

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

Millwork Technology
Design of moulding, doors, and door frames; windows; stairs; and mantels are the focus of this course. Emphasis will be placed on construction principles, joinery, and fasteners for millwork assemblies. Each student will build one or more millwork items. Pre-requisite: WMT 110 and WMT 120. Lecture: 4 credits (120 contact hours).
Components: Lecture

Moulder/Grinder Operation
This course is an introduction to the setup, operation, and maintenance of moulding and grinding equipment. The student will use tools, measuring devices and visual inspection techniques to insure quality to customer specifications. Students will set up and operate a moulder or plane, shape and groove woodstock. Students will read work tickets and examine the pattern shape to determine moulder setup procedure and type of woodstock to be cut. Pre-requisite: Permission of the Instructor. Lecture: 2 credits (60 contact hours).
Components: Lecture

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

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: Technical

Applied Experiences in Zoo Technology
Provides experience working in a fully accredited zooological park and exposure to zookeeping with many facets of animal husbandry. Practicum: 3 - 6 credits (180-360 contact hours).
Components: Practicum
Attributes: Technical
Appendix A

Determination of Residency Status for Admission and Tuition Purposes

13 KAR 2.045.
RELATES TO: KRS Chapter 138, 164.020, 164.030, 164A.330(6)
STATUTORY AUTHORITY: KRS 164.020(8)
NECESSITY, FUNCTION, AND CONFORMITY: KRS 164.020(8) requires the Council on Postsecondary Education to determine tuition and approve the minimum qualifications for admission to a state postsecondary education institution and authorizes the Council to set different tuition amounts for residents of Kentucky and for nonresidents. This administrative regulation establishes the procedure and guidelines for determining the residency status of a student who is seeking admission to, or who is enrolled at, a state-supported postsecondary education institution.

Section 1 Definitions
(1) "Academic term" means a division of the school year during which a course of studies is offered, and includes a semester, quarter, or single consolidated summer term as defined by the institution.
(2) "Continuous enrollment" means enrollment in a state-supported postsecondary education institution at the same degree level for consecutive terms, excluding summer term, since the beginning of the period for which continuous enrollment is claimed unless a sequence of continuous enrollment is broken due to extenuating circumstances beyond the student’s control, including serious personal illness or injury, or illness or death of a parent.
(3) "Degree level" means enrollment in a course or program that could result in the award of a:
(a) Certificate, diploma, or other program award at an institution;
(b) Baccalaureate degree or lower, including enrollment in a course by a nondegree-seeking postbaccalaureate student;
(c) Graduate degree or graduate certification other than a first-professional degree in law, medicine, dentistry, or "Pharm. D."
(d) Professional degree in law, medicine, dentistry, or "Pharm. D."
(4) "Dependent person" means a person who cannot demonstrate financial independence from parents or persons other than a spouse and who does not meet the criteria for independence established in Section 5 of this administrative regulation.
(5) "Determination of residency status" means the decision of a postsecondary education institution that may include a formal hearing that results in the classification of a person as a Kentucky resident or as a nonresident for admission and tuition assessment purposes.
(6) "Domicile" means a person’s true, fixed, and permanent home and is the place where the person intends to remain indefinitely, and to which the person expects to return if absent without intending to establish a new domicile elsewhere.
(7) "Full-time employment" means continuous employment for at least forty-eight (48) weeks at an average of at least thirty (30) hours per week.
(8) "Independent person" means a person who demonstrates financial independence from parents or persons other than a spouse and who meets the criteria for independence established in Section 5 of this administrative regulation.
(9) "Institution" means an entity defined by KRS 164.001(12) if the type of institution is not expressly stated and includes the Kentucky Virtual University, the Council on Postsecondary Education, and the Kentucky Higher Education Assistance Authority.
(10) "Kentucky resident" means a person determined by an institution for tuition purpose to be domiciled in and a resident of Kentucky as determined by this administrative regulation.
(11) "Nonresident" means a person who:
(a) Is domiciled outside by Kentucky;
(b) Currently maintains legal residence outside Kentucky; or
(c) Is not a Kentucky resident as determined by this administrative regulation.
(12) "Parent" means one (1) of the following:
(a) A person’s father or mother; or
(b) A court-appointed legal guardian if:
1. The guardianship is recognized by an appropriate court within the United States;
2. There was a relinquishment of the rights of the parents; and
3. The guardianship was not established primarily to confer Kentucky residency on the person.
(13) "Preponderance of the evidence" means the greater weight of evidence or evidence that is more credible and convincing to the mind.

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 a reasonable cost to a qualified individual who is domiciled in Kentucky and who is a resident of Kentucky.
(2) The Council on Postsecondary Education may require a student who is not domiciled in nor a resident of Kentucky to meet higher admission standards and to pay a higher level of tuition than resident students.

Section 3 Determination of Residency Status; General Rules
(1) A determination of residency shall include:
(a) An initial determination of residency status by an institution during the admission process or upon enrollment in an institution for a specific academic term or for admission into a specific academic program;
(b) A reconsideration of a determination of residency status by an institution based upon a changed circumstance; or
(c) A formal hearing conducted by an institution upon request of a student after other administrative procedures have been completed.
(2) An initial determination of residency status shall be based upon:
(a) The facts in existence when the credentials established by an institution for admission for a specific academic term have been received and during the period of review by the institution;
(b) Information derived from admissions materials;
(c) If applicable, other materials required by an institution and consistent with this administrative regulation; and
(d) Other information available to the institution from any source.
(3) An individual seeking a determination of Kentucky residency status shall demonstrate that status by a preponderance of the evidence.
(4) A determination of residency status shall be based upon verifiable circumstances or actions.
(5) Evidence and information cited as the basis for Kentucky domicile and residency shall accompany the application for a determination of residency status.
(6) A student classified as a nonresident shall retain that status until the student is officially reclassified by an institution.
(7) A student may apply for a review of a determination of residency status once for each academic term.
(8) If an institution has information that a student’s residency status may be incorrect, the institution shall review and determine the student’s correct residency status.
(9) If the Council on Postsecondary Education has information that an institution’s determination of residency status for a student may be incorrect, it may require the institution to review the circumstances and report the results of that review.
(10) An institution shall impose a penalty or sanction against a student who gives incorrect or misleading information to an institutional official, including payment of nonresident tuition for each academic term for which resident tuition was assessed based on an improper determination of residency status. The penalty or sanction may also include:

(a) Student discipline by the institution through a policy written and disseminated to students; or
(b) Criminal prosecution.

Section 4 Presumptions Regarding Residency Status

(1) In making a determination of residency status, it shall be presumed that a person is a nonresident if:

(a) A person is, or seeks to be, an undergraduate student and admissions records show the student to be a graduate of an out-of-state high school within five (5) years prior to a request for a determination of residency status;
(b) A person’s admissions records indicate the student’s residence to be outside of Kentucky at the time of application for admission;
(c) A person moves to Kentucky primarily for the purpose of enrollment in an institution;
(d) A person moves to Kentucky and within twelve (12) months enrolls at an institution more than half time;
(e) A person has a continuous absence of one (1) year from Kentucky; or
(f) A person attended an out-of-state higher education institution during the past academic year and paid in-state tuition at that institution.

(2) A presumption arising from subsection (1) of this section shall only be overcome by preponderance of evidence sufficient to demonstrate that a person is domiciled in and is a resident of Kentucky.

Section 5 Determination of Whether a Student is Dependent or Independent.

(1) In a determination of residency status, an institution shall first determine whether a student is dependent or independent. This provision is predicated on the assumption that a dependent person lacks the financial ability to live independently of the person upon whom the student is dependent and therefore lacks the ability to form the requisite intent to establish domicile. A determination that a student is independent shall be one (1) step in the overall determination of whether a student is or is not a resident of Kentucky.

(2) In determining the dependent or independent status of a person, the following information shall be considered as well as other relevant information available at the time the determination is made:

(a) Whether the person has been claimed as a dependent on the federal or state tax returns of a parent or other person for the year preceding the date of application for a determination of residency status; or
(b) Whether the person is no longer claimed by a parent or other person as a dependent or as an exemption for federal and state tax purposes; and
(c) Whether the person has financial earnings and resources independent of a person other than an independent spouse necessary to provide for the student’s own sustenance.

(3) An individual who enrolls at an institution immediately following graduation from high school and remains enrolled shall be presumed to be a dependent person unless the contrary is evident from the information submitted.

(4) Domicile may be inferred from the student’s permanent address, parent’s mailing address, or location of high school of graduation.

(5) Marriage to an independent person domiciled in and who is a resident of Kentucky shall be a factor considered by an institution in determining whether a student is dependent or independent.

(6) Financial assistance from or a loan made by a parent or family member other than an independent spouse, if used for sustenance of the student:
(a) Shall not be considered in establishing a student as independent; and
(b) Shall be a factor in establishing that a student is dependent.

Section 6 Effect of a Determination of Dependent Status on a Determination of Residency Status

(1) The effect of a determination that a person is dependent shall be:

(a) The domicile and residency of a dependent person shall be the same as either parent. The domicile and residency of the parent shall be determined in the same manner as the domicile and residency of an independent person; and
(b) The domicile and residency of a dependent person whose parents are divorced, separated, or otherwise living apart shall be Kentucky if either parent is domiciled in and is a resident of Kentucky regardless of which parent has legal custody or is entitled to claim that person as a dependent pursuant to federal or Kentucky income tax provisions.

(2) If the parent or parents of a dependent person are Kentucky residents and are domiciled in Kentucky but subsequently move from the state:

(a) The dependent person shall be considered a resident of Kentucky while in continuous enrollment at the degree level in which currently enrolled; and
(b) The dependent person’s residency status shall be reassured if continuous enrollment is broken or the current degree level is completed.

Section 7 Member of Armed Forces of the United States, Spouse and Dependents; Effect on a Determination of Residency Status

(1) A member, spouse, or dependent of a member whose domicile and residency was Kentucky at the time of induction into the Armed Forces of the United States, and who maintains Kentucky as home of record and permanent address, shall be entitled to Kentucky residency status.

(a) During the member’s time of active service; and
(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)(a) Membership in the National Guard or civilian employment at a military base alone shall not qualify a person for Kentucky residency status under the provisions of subsections (1) and (2) of this section. If a member of the Kentucky National Guard is on active duty status for a period of not less than thirty (30) days, the member shall be considered a Kentucky resident, as shall the spouse of a dependent child of the member.

(4) A person’s residency status established pursuant to this section shall be reassessed if the qualifying condition is terminated.

Section 8 Status of Nonresident Aliens; Visas and Immigration

(1)(a) A person holding a permanent residency visa or classified as a political refugee shall establish domicile and residency in the same manner as another person.

(b) Time spent in Kentucky and progress made in fulfilling the conditions of domicile and residency prior to obtaining permanent residency status shall be considered in establishing Kentucky domicile and residency.

(2) A person holding a nonimmigrant visa with designation A, E, G, H-1, H-4 if accompanying a person with an H-1 visa, I, K, L, N, R, shall establish domicile and residency the same as another person.

(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.

(c) A dependent person holding a visa described in subsection (2) of this section or paragraph (a) of this subsection, if a parent is a citizen of the United States and is a resident of and domiciled in Kentucky, shall be a resident of Kentucky for the purposes of this administrative regulation.

(4) A person shall be a Kentucky resident for the purpose of this administrative regulation if the person graduated from a Kentucky high school and:

(a) Is an undocumented alien;
(b) Holds a visa listed in subsections (2) or (3)(a) of this section; or
(c) Is a dependent of a person who holds a visa listed in subsections (2) or (3)(a) of this section.

(5)(a) Except as provided in paragraph (b) of this subsection, a person who has petitioned the federal government to reclassify visa status shall continue to be ineligible until the petition has been decided by the federal government.

(b) A person who has petitioned the federal government to reclassify his or her visa status based on marriage to a Kentucky resident and who can demonstrate that the petition has been filed and acknowledged by the federal government, may establish Kentucky domicile and residency at that time.

Section 9 Beneficiaries of a Kentucky Educational Savings Plan Trust

A beneficiary of a Kentucky Educational Savings Plan Trust shall be granted residency status if the beneficiary meets the requirements of KRS 164A.330(6).
Appendix

Section 10 Criteria Used in a Determination of Residency Status

(1) A determination of Kentucky domicile and residency shall be based upon verifiable circumstances or actions.

(b) A single fact shall not be paramount, and each situation shall be evaluated to identify those facts essential to the determination of domicile and residency.

(c) A person shall not be determined to be a Kentucky resident by the performance of an act that is incidental to fulfilling an educational purpose or by an act performed as a matter of convenience.

(d) Mere physical presence in Kentucky, including living with a relative or friend, shall not be sufficient evidence of domicile and residency.

(e) A student or prospective student shall respond to all requests for information regarding domicile or residency requested by an institution.

(2) The following facts, although not conclusive, shall have probative value in their entirety and shall be individually weighted, appropriate to the facts and circumstances in each determination of residency:

(a) Acceptance of an offer of full-time employment or transfer to an employer in Kentucky or contiguous area while maintaining residence and domicile in Kentucky;

(b) Continuous physical presence in Kentucky while 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 in order to provide basic sustenance.

(3) Except as provided in subsection (4) of this section, the following facts, because of the ease and convenience in completing them, shall have limited probative value in a determination that a person is domiciled in and is a resident of Kentucky:

(a) Kentucky automobile registration;

(b) Kentucky driver’s license;

(c) Registration as a Kentucky voter;

(d) Long-term lease of at least twelve (12) consecutive months of noncollege housing; and

(e) Continued presence in Kentucky during academic breaks.

(4) The absence of a fact contained in subsection (3) of this section shall have significant probative value in determining that a student is not domiciled in or is not a resident of Kentucky.

Section 11 Effect of a Change in Circumstances on Residency Status

(1) If a person becomes independent or if the residency status of a parent or parents of a dependent person changes, an institution shall reassess residency either upon a request by the student or a review initiated by the institution.

(2) Upon transfer to a Kentucky institution, a student’s residency status shall be assessed by the receiving institution.

(3) A reconsideration of a determination of residency status for a dependent person shall be subject to the provisions for continuous enrollment, if applicable.

Section 12 Student Responsibilities

(1) A student shall report under the proper residency classification, which includes the following actions:

(a) Raising a question concerning residency classification;

(b) Making application for change of residency classification with the designated office or person at the institution;

(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) A student failing 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 determination has been made.

(b) Notification shall be made by registered mail, return receipt requested.

(c) Notification shall be made within ten (10) calendar days after the deadline for receipt of materials has passed.

(4) A formal hearing conducted by an institution and the final recommended order shall be a final administrative action with no appeal to the Council on Postsecondary Education.

(b) A formal administrative hearing conducted by the Council on Postsecondary Education for residency determinations related to eligibility for the Academic Common Market and Regional Contract Programs shall be conducted pursuant to the provisions of KRS Chapter 13B and 13 KAR 2:070. The recommended order issued by the President of the Council shall be a final administrative action.

(5) A student shall not be entitled to appeal a determination of residency status if the determination made by an institution is because a student has failed to meet published deadlines for the submission of information as set forth in subsection (3) of this section. A student may request a review of a determination of residency status in a subsequent academic term.

Section 13 Institutional Responsibilities Each institution shall:

(1) Provide for an administrative appeals process that includes a residency appeals officer to consider student appeals of an initial residency determination and which shall include a provision of fourteen (14) days for the student to appeal the residency appeals officer’s determination;

(2) Establish a residency review committee to consider appeals of residency determinations by the residency appeals officer. The residency review committee shall make a determination of student residency status and notify the student in writing within forty-five (45) days after receipt of the student appeal;

(3) Establish a formal hearing process as described in Section 14 of this administrative regulation; and

(4) Establish written policies and procedures for administering the responsibilities established in subsections (1), (2), and (3) of this section and that are:

(a) Approved by the institution’s governing board;

(b) Made available to all students; and

(c) Filed with the council.

Section 14 Formal Institutional Hearing

(1) A student who appeals a determination of residency by a residency review committee shall be granted a formal hearing by an institution if the request is made by a student in writing within fourteen (14) calendar days after notification of a determination by a residency review committee.

(2) If a request for a formal hearing is received, an institution shall appoint a hearing officer to conduct a formal hearing. The hearing officer shall:

(a) Be a person not involved in determinations of residency at an institution except for formal hearings; and

(b) Not be an employee in the same organizational unit as the residency appeals officer.

(3) An institution shall have written procedures for the conduct of a formal hearing that have been adopted by the board of trustees or regents, as appropriate, and that provide for:

(a) A hearing officer to make a recommendation on a residency appeal;

(b) Guarantees of due process to a student that include:

1. The right of a student to be represented by legal counsel; and

2. The right of a student to present information and to present testimony and information in support of a claim of Kentucky residency; and

(c) A recommendation to be issued by the hearing officer.

(4) An institution’s formal hearing procedures shall be filed with the Council on Postsecondary Education and shall be available to a student requesting a formal hearing.

Section 15 Cost of Formal Hearings

(1) An institution shall pay the cost for all residency determinations including the cost of a formal hearing.

(2) A student shall pay for the cost of all legal representation in support of the student’s claim of residency.

(17 Ky.R. 2537; eff. 4-5-1991; Am. 22 Ky.R. 1656; 1988; eff. 5-16-1996; 23 Ky.R. 3301; 3797; 4099; eff. 6-16-1997; 24 Ky.R. 2136; 2705; 25 Ky.R. 51; eff. 7-13-1998; 25 Ky.R. 2177; 2577; 2827, eff. 6-7-1999; 749; 1238, eff. 11-12-2002; 36 Ky.R. 1083; 1951; 2033-M; eff. 4-2-2010.)
## Math Course Transitions
### Crosswalk – Mathematics

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<td>MA 121</td>
<td>Mathematics for Business</td>
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<td>MA 215</td>
<td>Mathematics for Middle &amp; Elementary Teachers II</td>
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<td>STA 200</td>
<td>Statistics: A Force in Human Judgment</td>
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<td>STA 291</td>
<td>Statistical Methods</td>
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<td>MT 100</td>
<td>College Algebra Workshop</td>
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<td>MT 105</td>
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<td>MT 110</td>
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<td>MT 1101</td>
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<td>MT 1103</td>
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<td>MT 1104</td>
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<td>Instructor Consent Required AAS Mathematics: (Topic)</td>
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<td>MT 150</td>
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<td>MT 160</td>
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<td>Finite Mathematics and its Applications</td>
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<td>MT 170</td>
<td>Brief Calculus with Applications</td>
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<td>MT 175</td>
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<td>MT 185</td>
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<td>MT 275</td>
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<td>MT 285</td>
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<td>STA 210</td>
<td>Statistics: A Force in Human Judgment</td>
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<tr>
<td>STA 291</td>
<td>Statistical Methods</td>
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</table>
Historical Mathematics Course Transitions

Below is a table clarifying the math course transition that took place Fall 2004. Courses with the MT prefix that are below the 100-level are transitional courses. MT courses between 100 and 139 are specifically designed for occupational/technical programs. Courses numbered 140 and above are designed as transfer courses.

<table>
<thead>
<tr>
<th>New Course</th>
<th>Credit</th>
<th>Prereq. Course</th>
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<tr>
<td>MT 050 Dev. Math Workshop</td>
<td>1-2</td>
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<tr>
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<td>MAH 060, MTH 100</td>
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<td>MT 065 Basic Algebra w/ Measurement</td>
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<td>MT 055</td>
<td>MAH 070, MTH 110,</td>
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<td>MT 075 Pre-College Geometry</td>
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<td>MT 105 Business Math.</td>
<td>3</td>
<td>MT 065</td>
<td>MAH 121</td>
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<tr>
<td>MT 110 Applied Math.</td>
<td>3</td>
<td>MT 065</td>
<td>MAH 151</td>
</tr>
<tr>
<td>MT 115 Technical Math.</td>
<td>3</td>
<td>MT 065</td>
<td>MAH 125, MTH 120, MTH 130, MTH 150</td>
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<tr>
<td>MT 120 Intermediate Algebra w/ Applications</td>
<td>3</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>MT 065</td>
<td>MAH 080</td>
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<td>MT 125 Technical Algebra &amp; Trigonometry</td>
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<td>MTH 170, MTH 175, MTH 101</td>
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<td>MT 107</td>
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<td>MT 109</td>
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Mathematics Crosswalk of Courses for Purpose of Pre-requisites

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<td>MA 162 – Finite Mathematics and Its Applications</td>
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<td>MA 123 – Elementary Calculus</td>
<td>3</td>
<td>MT 170 – Brief Calculus with Applications</td>
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<tr>
<td>MA 113 – Calculus I</td>
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<td>MA 114 – Calculus II</td>
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<td>MA 213 – Calculus III</td>
<td>4</td>
<td>MT 275 – Calculus III</td>
</tr>
<tr>
<td>MA 214 – Calculus IV</td>
<td>3</td>
<td>MT 285 – Differential Equations</td>
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Appendix
## Biology Crosswalk

This table includes changes made to Biology courses effective Fall 2010.

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<thead>
<tr>
<th>New Course #</th>
<th>Old Course #</th>
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<td>BIO 026</td>
<td>BSL 025</td>
<td>Orientation to College Biology</td>
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<tr>
<td>BIO 112</td>
<td>BIO 103</td>
<td>Basic Ideas of Biology</td>
</tr>
<tr>
<td>BIO 113</td>
<td>BIO 111</td>
<td>Introduction to Biology Lab</td>
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<tr>
<td>BIO 114</td>
<td>BSL 102</td>
<td>Biology I</td>
</tr>
<tr>
<td>BIO 115</td>
<td>BSL 100</td>
<td>Biology Laboratory I</td>
</tr>
<tr>
<td>BIO 116</td>
<td>BSL 103</td>
<td>Biology II</td>
</tr>
<tr>
<td>BIO 117</td>
<td>BSL 101</td>
<td>Biology Laboratory II</td>
</tr>
<tr>
<td>BIO 118</td>
<td>-----------</td>
<td>Microbes and Society</td>
</tr>
<tr>
<td>BIO 220</td>
<td>BIO 204</td>
<td>The Genetic Perspective</td>
</tr>
<tr>
<td>Dropped</td>
<td>BSL 214</td>
<td>Medical Microbiology</td>
</tr>
<tr>
<td>Dropped</td>
<td>BSL 244</td>
<td>Principles of Environmental Science</td>
</tr>
<tr>
<td>Dropped</td>
<td>PGY 206</td>
<td>Elementary Physiology</td>
</tr>
<tr>
<td>BIO 120</td>
<td>BIO 102</td>
<td>Human Ecology</td>
</tr>
<tr>
<td>BIO 121</td>
<td>-</td>
<td>Introduction to Ecology Laboratory</td>
</tr>
<tr>
<td>BIO 122</td>
<td>BSL 116</td>
<td>Introduction to Conservation Ecology</td>
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<td>BIO 124</td>
<td>BSL 120</td>
<td>Principles of Ecology</td>
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<td>BIO 130</td>
<td>BSL 109</td>
<td>Aspects of Human Biology</td>
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<tr>
<td>BIO 135</td>
<td>BSL 107</td>
<td>Basic Anatomy and Physiology w/ Lab</td>
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<tr>
<td>BIO 137</td>
<td>BSL 110</td>
<td>Human Anatomy and Physiology I</td>
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<tr>
<td>BIO 139</td>
<td>BSL 111</td>
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<td>BIO 140</td>
<td>BIO 106/BSL 140</td>
<td>Botany</td>
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<tr>
<td>BIO 141</td>
<td>BIO 106/BSL 140 and BIO 107</td>
<td>Botany with Laboratory</td>
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<td>BIO 142</td>
<td>BIO 104/BSL 160</td>
<td>Zoology</td>
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<td>BIO 143</td>
<td>BIO 104/BSL 160 and BIO 105</td>
<td>Zoology with Laboratory</td>
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<td>BIO 150</td>
<td>BIO 150</td>
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<td>BIO 151</td>
<td>BIO 151</td>
<td>Principles of Biology Laboratory I</td>
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<td>BIO 152</td>
<td>BIO 152</td>
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<tr>
<td>BIO 153</td>
<td>BIO 153</td>
<td>Principles of Biology Laboratory II</td>
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<td>BIO 220</td>
<td>BIO 204</td>
<td>The Genetic Perspective</td>
</tr>
<tr>
<td>Dropped</td>
<td>BSL 214</td>
<td>Medical Microbiology</td>
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<td>Dropped</td>
<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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<tr>
<td>BIO 224</td>
<td>BSL 215</td>
<td>Introduction to Molecular and Cell Biology</td>
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<td>BIO 225</td>
<td>BSL 212</td>
<td>Medical Microbiology w/ Lab</td>
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<td>BIO 226</td>
<td>BIO 208</td>
<td>Principles of Microbiology</td>
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<td>BIO 227</td>
<td>BIO 208/209</td>
<td>Principles of Microbiology with Laboratory</td>
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<td>BIO 295</td>
<td>BSL 295</td>
<td>Independent Investigation in Biology</td>
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<tr>
<td>BIO 299</td>
<td>BSL 299</td>
<td>Selected Topics in Biology: Topic</td>
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## Crosswalk for Chemistry Courses

<table>
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<tr>
<th>Approved Course Prefix/Number</th>
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<th>Old Course Prefix/Number</th>
<th>“OLD” Course Title</th>
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<tr>
<td>CHE 120</td>
<td>The Joy of Chemistry*</td>
<td>CHM 101</td>
<td>Chemistry: A Cultural Approach</td>
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<tr>
<td>CHE 125</td>
<td>The Joy of Chemistry Laboratory*</td>
<td>NEW</td>
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</tr>
<tr>
<td>CHE 130</td>
<td>Introductory General and Biological Chemistry*</td>
<td>CHM 100</td>
<td>Introductory General and Biological Chemistry</td>
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<td>CHE 140</td>
<td>Introductory General Chemistry*</td>
<td>CHE 104</td>
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<td>CHE 145</td>
<td>Introductory General Chemistry Laboratory*</td>
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<td>Introductory General Chemistry Laboratory</td>
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<td>CHE 150</td>
<td>Introduction to Organic and Biological Chemistry*</td>
<td>CHE 106</td>
<td>Introduction to Inorganic, Organic, and Biochemistry</td>
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<td>CHE 155</td>
<td>Introduction to Organic and Biological Chemistry Laboratory*</td>
<td>NEW</td>
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<tr>
<td>CHE 160</td>
<td>Preparation for General College Chemistry</td>
<td>CHM 102</td>
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<td>CHE 170</td>
<td>General College Chemistry I*</td>
<td>CHE 105</td>
<td>General College Chemistry I</td>
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<tr>
<td>CHE 173</td>
<td>General College Chemistry I Workshop</td>
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<td>CHE 175</td>
<td>General College Chemistry Laboratory I*</td>
<td>CHM 105</td>
<td>General Chemistry Laboratory I</td>
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<td>CHE 180</td>
<td>General College Chemistry II*</td>
<td>CHE 107</td>
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<td>CHE 183</td>
<td>General College Chemistry II Workshop</td>
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<td>CHE 185</td>
<td>General College Chemistry Laboratory II*</td>
<td>CHM 107</td>
<td>General Chemistry Laboratory II</td>
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<td>CHE 220</td>
<td>Analytical Chemistry*</td>
<td>CHE 226</td>
<td>Analytical Chemistry</td>
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<td>CHE 270</td>
<td>Organic Chemistry I*</td>
<td>CHE 230</td>
<td>Organic Chemistry I</td>
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<td>CHE 275</td>
<td>Organic Chemistry Laboratory I*</td>
<td>CHE 231</td>
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<td>CHE 285</td>
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<td>Selected Topics in Chemistry: (Topic)</td>
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<td>CHE 295</td>
<td>Selected Topics in Chemistry Laboratory: (Topic)</td>
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<td>CHE 299</td>
<td>Laboratory Research in Chemistry: (Topic)</td>
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*General Education Status
## Crosswalks

### Agricultural Technology: 2011-2012

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<td>AG 125 Introduction to Fertilizers and Soils</td>
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<td>AGR 130 Field Applications in Agriculture</td>
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<td>AGR 140 Issues in Agriculture</td>
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<td>AGR 150 Agriculture Power</td>
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<td>AGR 165 Agriculture Seminar</td>
<td>AG 160 Agriculture Seminar</td>
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<td>AGR 170 Introduction to Equipment, Machines, and Engines</td>
<td>AG 170 Introduction to Equipment, Machines, and Engines</td>
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<tr>
<td>AGR 180 Agriculture Internship I</td>
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<tr>
<td>AGR 220 Computers in the Agriculture Environment</td>
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<tr>
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<tr>
<td>AGR 240 Introduction to Animal Science</td>
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<tr>
<td>AGR 250 Introduction to Plants/Crop Production</td>
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### Art: 2010-2011

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<td>AE 272 Workshop in Art Education</td>
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<tr>
<td>ART 100 Introduction to Art</td>
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<tr>
<td>ART 104 Introduction to African Art</td>
<td>AH 104 Introduction to African Art</td>
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<tr>
<td>ART 105 Ancient through Medieval Art History</td>
<td>AH 105 Ancient through Medieval Art</td>
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<td>ART 106 Renaissance Through Modern Art History</td>
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<td>ART 112 2-Dimensional Design</td>
<td>ART 120 2-Dimensional Design</td>
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<td>ART 113 3-Dimensional Design</td>
<td>ART 130 3-Dimensional Design</td>
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<td>ART 201 Ancient Art History</td>
<td>AH 210 Ancient Art History</td>
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<tr>
<td>ART 202 Medieval Art</td>
<td>AH 211 Medieval Art</td>
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<tr>
<td>ART 203 Renaissance Art</td>
<td>AH 212 Renaissance Art</td>
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<td>ART 204 Modern Art</td>
<td>AH 213 Modern Art</td>
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<td>ART 208</td>
<td>Introduction to Art Education</td>
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<td>ART 211</td>
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<td>ART 221</td>
<td>Painting II</td>
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<td>ART 240</td>
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**New Courses**

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<tbody>
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<td>Introduction to Biotechnology</td>
</tr>
<tr>
<td>BTN 110</td>
<td>Nucleic Acid Methods</td>
</tr>
<tr>
<td>BTN 201</td>
<td>Biotechnology Techniques I</td>
</tr>
<tr>
<td>BTN 202</td>
<td>Biotechnology Techniques II</td>
</tr>
<tr>
<td>BTN 210</td>
<td>Cell Culture and Function</td>
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<td>BTN 220</td>
<td>Immunological Methods</td>
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**Old Courses**

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<td>Biotechnology Techniques I</td>
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<tr>
<td>BTN 202</td>
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<tr>
<td>BTN 210</td>
<td>Cell Culture and Function</td>
</tr>
<tr>
<td>BTN 220</td>
<td>Immunological Methods</td>
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**Biotechnology: 2011-2012**

**Business Administration Systems: 2011-2012**

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<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>BA 160</td>
<td>Introduction to Business</td>
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<tr>
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**Collision Repair Technology : 2011-2012**

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**Computer Aided Drafting & Design : 2011-2012**

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**Computerized Manufacturing and Machining: 2012-2013**

(Previously listed under Machine Tool Technology)

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**Cosmetology: 2011-2012**

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**Criminal Justice: 2011-2012**

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<td>Introduction to Criminalistics</td>
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<td>CRJ 202</td>
<td>Issues and Ethics in Criminal Justice</td>
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<td>Community Corrections: Probation and Parole</td>
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<td>Delinquency and the Juvenile Justice System</td>
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<td>Liability and Legal Issues</td>
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<td>Introduction to Law Enforcement</td>
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<td>CRJ 222</td>
<td>Prison &amp; Jail Administration</td>
</tr>
<tr>
<td>CRJ 230</td>
<td>Criminal Justice Courtroom Procedures</td>
</tr>
<tr>
<td>CRJ 231</td>
<td>Legal Aspects of Corrections</td>
</tr>
<tr>
<td>CRJ 240</td>
<td>Introduction to Corporate &amp; Industrial Security</td>
</tr>
<tr>
<td>CRJ 245</td>
<td>Introduction to Business and Industrial Fraud</td>
</tr>
<tr>
<td>CRJ 279</td>
<td>Terrorism and Political Violence</td>
</tr>
<tr>
<td>CRJ 290</td>
<td>Internship in Criminal Justice</td>
</tr>
<tr>
<td>CRJ 299</td>
<td>Selected Topics in Law Enforcement</td>
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**Dental Assisting/Dental Hygiene: 2011-2012**

<table>
<thead>
<tr>
<th>New Courses</th>
<th>Old Courses</th>
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<tbody>
<tr>
<td>DAH 124</td>
<td>Materials in Dentistry</td>
</tr>
<tr>
<td></td>
<td>DAH 224</td>
</tr>
<tr>
<td></td>
<td>DAH 111</td>
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**Dental Hygiene (BCTC): 2011-2012**

<table>
<thead>
<tr>
<th>New Courses</th>
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</tr>
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<tbody>
<tr>
<td>DHP 120</td>
<td>Dental Hygiene I</td>
</tr>
<tr>
<td></td>
<td>DH 120</td>
</tr>
<tr>
<td>DHP 121</td>
<td>Oral Biology I</td>
</tr>
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<td></td>
<td>DH 121</td>
</tr>
<tr>
<td>DHP 130</td>
<td>Dental Hygiene II</td>
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<td>DH 130</td>
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<td>Code</td>
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<td>------------</td>
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<tr>
<td>DHP 131</td>
<td>Oral Biology II</td>
</tr>
<tr>
<td>DHP 135</td>
<td>Dental Radiology</td>
</tr>
<tr>
<td>DHP 136</td>
<td>Periodontics I</td>
</tr>
<tr>
<td>DHP 220</td>
<td>Dental Hygiene III</td>
</tr>
<tr>
<td>DHP 222</td>
<td>Special Needs Patients</td>
</tr>
<tr>
<td>DHP 224</td>
<td>Dental Materials</td>
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<td>DHP 226</td>
<td>Periodontics II</td>
</tr>
<tr>
<td>DHP 229</td>
<td>Local Anesthesia</td>
</tr>
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<td>DHP 230</td>
<td>Dental Hygiene IV</td>
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<tr>
<td>DHP 235</td>
<td>Principles of Practice</td>
</tr>
<tr>
<td>DHP 238</td>
<td>Community Dental Health</td>
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<td>DHP 299</td>
<td>Independent Study Dental Hygiene</td>
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### Diagnostic Medical Sonography: 2011-2012

<table>
<thead>
<tr>
<th>New Courses</th>
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<tbody>
<tr>
<td>DMS 105  Introduction to Cardiology</td>
<td>SONO 105  Introduction to Cardiology</td>
</tr>
<tr>
<td>DMS 109  Sonography I</td>
<td>SONO 110  Sonography I</td>
</tr>
<tr>
<td>DMS 111  Abdominal Synography</td>
<td>SONO 111  Abdominal Synography</td>
</tr>
<tr>
<td>DMS 115  Sonography II</td>
<td>SONO 115  Sonography II</td>
</tr>
<tr>
<td>DMS 116  OB/GYN Sonography</td>
<td>SONO 116  OB/GYN Sonography</td>
</tr>
<tr>
<td>DMS 117  Vascular Sonography I</td>
<td>SONO 117  Vascular Sonography I</td>
</tr>
<tr>
<td>DMS 118  Vascular Sonography II</td>
<td>SONO 118  Vascular Sonography II</td>
</tr>
<tr>
<td>DMS 119  Ultrasonic Physics and Instrumentation</td>
<td>SONO 120  Ultrasonic Physics and Instrumentation</td>
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<tr>
<td>DMS 121  Sonography Physics and Instrumentation</td>
<td>SONO 121  Sonography Physics and Instrumentation</td>
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<tr>
<td>DMS 126  Clinical Education I</td>
<td>SONO 125  Clinical Education I</td>
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<tr>
<td>DMS 136  Vascular Clinical Education I</td>
<td>SONO 136  Vascular Clinical Education I</td>
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<tr>
<td>DMS 145  Cardiac Sonography I</td>
<td>SONO 145  Cardiac Sonography I</td>
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<tr>
<td>DMS 199  Online Physics Review</td>
<td>SONO 200  Online Physics Review</td>
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<tr>
<td>DMS 201  Online Abdomen Review</td>
<td>SONO 201  Online Abdomen Review</td>
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<tr>
<td>DMS 202  Online OB/GYN Review</td>
<td>SONO 202  Online OB/GYN Review</td>
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<td>SONO 203  Online High Resolution Sonography</td>
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<td>DMS 204  Online Vascular Sonography</td>
<td>SONO 204  Online Vascular Sonography</td>
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<td>DMS 205  Cardiac Sonography II</td>
<td>SONO 205  Cardiac Sonography II</td>
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<tr>
<td>DMS 206</td>
<td>Online Vascular Sonography III</td>
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<td>DMS 215</td>
<td>Cardiac Sonography III</td>
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<td>DMS 217</td>
<td>Basic Cardiac Ultrasound Sonography</td>
</tr>
<tr>
<td>DMS 230</td>
<td>Clinical Education II</td>
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<td>DMS 236</td>
<td>Vascular Clinical Education II</td>
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<tr>
<td>DMS 237</td>
<td>Vascular Clinical Education III</td>
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<td>DMS 240</td>
<td>Clinical Education III</td>
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<tr>
<td>DMS 245</td>
<td>Cardiac Sonography IV</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>
</tr>
<tr>
<td>DMS 280</td>
<td>Basic Vascular Technology</td>
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**Digital Game and Simulation Design: 2012-2013**

*(Previously listed under Digital Game Design)*

<table>
<thead>
<tr>
<th>New Courses</th>
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<tbody>
<tr>
<td>DGD 132</td>
<td>Introduction to 3D Graphics</td>
</tr>
<tr>
<td>DGD 232</td>
<td>3D Character Development</td>
</tr>
<tr>
<td>DGD 234</td>
<td>3D Animation</td>
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<table>
<thead>
<tr>
<th>New Courses</th>
<th>Old Courses</th>
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<tbody>
<tr>
<td>IT 131</td>
<td>Introduction to Digital 3-D Game Graphics</td>
</tr>
<tr>
<td>IT 231</td>
<td>3-D Digital Game Animation</td>
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**Education: 2011-2012**

<table>
<thead>
<tr>
<th>New Courses</th>
<th>Old Courses</th>
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<tbody>
<tr>
<td>EDU 110</td>
<td>Orientation to Education</td>
</tr>
<tr>
<td>EDU 120</td>
<td>Child &amp; Adolescent Development</td>
</tr>
<tr>
<td>EDU 130</td>
<td>Introduction to Special Education</td>
</tr>
<tr>
<td>EDU 140</td>
<td>Introduction to Behavioral Management</td>
</tr>
<tr>
<td>EDU 150</td>
<td>Practical Experiences for the Paraeducator</td>
</tr>
<tr>
<td>EDU 201</td>
<td>Introduction to American Education</td>
</tr>
<tr>
<td>EDU 204</td>
<td>Technology in the Classroom</td>
</tr>
<tr>
<td>EDU 240</td>
<td>Elementary &amp; Middle School Literature</td>
</tr>
<tr>
<td>EDU 270</td>
<td>Elementary School Literature</td>
</tr>
<tr>
<td>EDU 280</td>
<td>Education Externship/Co-op</td>
</tr>
<tr>
<td>EDU 299</td>
<td>Selected Topics in Education</td>
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<table>
<thead>
<tr>
<th>New Courses</th>
<th>Old Courses</th>
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<tbody>
<tr>
<td>ED 101</td>
<td>Orientation to Education</td>
</tr>
<tr>
<td>ED 102</td>
<td>Child &amp; Adolescent Development</td>
</tr>
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<td>ED 103</td>
<td>Introduction to Special Education</td>
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<td>ED 104</td>
<td>Introduction to Behavioral Management</td>
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<tr>
<td>ED 105</td>
<td>Practical Experiences for the Paraeducator</td>
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<td>ED 201</td>
<td>Introduction to American Education</td>
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<tr>
<td>ED 203</td>
<td>Technology in the Classroom</td>
</tr>
<tr>
<td>ED 240</td>
<td>Elementary &amp; Middle School Literature</td>
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<td>ED 270</td>
<td>Elementary School Literature</td>
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<tr>
<td>ED 280</td>
<td>Education Externship/Co-op</td>
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<tr>
<td>ED 299</td>
<td>Selected Topics in Education</td>
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### Education: 2013-2014

<table>
<thead>
<tr>
<th>New Courses</th>
<th>Old Courses</th>
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<tbody>
<tr>
<td>EDM 270  Teaching and Learning in the Middle Grades</td>
<td>MID 270  Teaching and Learning in the Middle Grades</td>
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### Emergency Medical Services – Paramedic: 2013-2014

<table>
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<th>New Courses</th>
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<tbody>
<tr>
<td>Dropped</td>
<td>PAR 110  Introduction to Paramedic Practice</td>
</tr>
<tr>
<td>Dropped</td>
<td>PAR 120  Paramedic Practice II</td>
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<tr>
<td>Dropped</td>
<td>PAR 220  Paramedic Practice III</td>
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<tr>
<td>Dropped</td>
<td>PAR 230  Clinical Practicum I</td>
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<td>PAR 2301 Clinical Practicum I-A</td>
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<tr>
<td>Dropped</td>
<td>PAR 2302 Clinical Practicum I-B</td>
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<td>Dropped</td>
<td>PAR 240  Field Internship I</td>
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<tr>
<td>Dropped</td>
<td>PAR 2401 Field Internship I-A</td>
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<tr>
<td>Dropped</td>
<td>PAR 2402 Field Internship I-B</td>
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<tr>
<td>EMS 200  Introduction to Paramedicine - NEW</td>
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<tr>
<td>EMS 210  Emergency Pharmacology - NEW</td>
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<tr>
<td>EMS 211  Fundamentals Lab - NEW</td>
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</tr>
<tr>
<td>EMS 215  Clinical Experience I - NEW</td>
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<tr>
<td>EMS 220  Cardiovascular Emergencies - NEW</td>
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<tr>
<td>EMS 221  Cardiac and Trauma Lab - NEW</td>
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<tr>
<td>EMS 225  Clinical Experience II - NEW</td>
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<tr>
<td>EMS 230  Traumatic Emergencies - NEW</td>
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</tr>
<tr>
<td>EMS 231  Medical Lab - NEW</td>
<td></td>
</tr>
<tr>
<td>EMS 235  Clinical Experience III - NEW</td>
<td></td>
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<tr>
<td>EMS 240  Medical Emergencies I - NEW</td>
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</tr>
<tr>
<td>EMS 250  Medical Emergencies II - NEW</td>
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<tr>
<td>EMS 260  Special Populations - NEW</td>
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<td>EMS 270  EMS Operations - NEW</td>
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<tr>
<td>EMS 275  Seminar in Advanced Life Support (ALS) - NEW</td>
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<tr>
<td>EMS 285  Field Internship &amp; Summation - NEW</td>
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</table>
### Energy Systems: 2011-2012

<table>
<thead>
<tr>
<th>New Courses</th>
<th>Old Courses</th>
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<tbody>
<tr>
<td><strong>ESP 101</strong></td>
<td><strong>ES 101</strong> Introduction to Energy Systems</td>
</tr>
<tr>
<td><strong>ESP 110</strong> Petroleum Based Fuels</td>
<td><strong>ES 110</strong> Introduction to Petroleum Based Fuels</td>
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<tr>
<td><strong>ESP 120</strong> Power Plant Chemistry</td>
<td><strong>ES 120</strong> Power Plant Chemistry</td>
</tr>
<tr>
<td><strong>ESP 130</strong> Electrical Concepts</td>
<td><strong>ES 130</strong> Electrical Concepts</td>
</tr>
<tr>
<td><strong>ESP 132</strong> Electrical Machinery and Controls</td>
<td><strong>ES 132</strong> Electrical Machinery and Controls</td>
</tr>
<tr>
<td><strong>ESP 211</strong> Power Plant Operations I</td>
<td><strong>ES 211</strong> Power Plant Operations I: Introduction to Power Plant Operations</td>
</tr>
<tr>
<td><strong>ESP 212</strong> Power Plant Operations II</td>
<td><strong>ES 212</strong> Power Plant Operations II: Boilers/Fuel/Air Combustion/Emissions</td>
</tr>
<tr>
<td><strong>ESP 213</strong> Power Plant Operations III</td>
<td><strong>ES 213</strong> Power Plant Operations III: Water/Steam/Turbines/Generators</td>
</tr>
<tr>
<td><strong>ESP 214</strong> Power Plant Operations IV</td>
<td><strong>ES 214</strong> Power Plant Operations IV: Auxiliaries</td>
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<tr>
<td><strong>ESP 220</strong> Power Plant Thermodynamics</td>
<td><strong>ES 220</strong> Power Plant Thermodynamic Applications</td>
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<tr>
<td><strong>ESP 280</strong> Capstone in Energy Systems</td>
<td><strong>ES 280</strong> Capstone in Energy Systems</td>
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### Engineering & Electronics Technology (Previously MIT: Engineering Technology): 2011-2012

<table>
<thead>
<tr>
<th>New Courses</th>
<th>Old Courses</th>
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<tbody>
<tr>
<td><strong>ELT 102</strong> Blueprint Reading</td>
<td><strong>ET 102</strong> Blueprint Reading</td>
</tr>
<tr>
<td><strong>ELT 105</strong> Computer Maintenance Essentials</td>
<td><strong>ENGT 105</strong> Computer Maintenance Essentials</td>
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<tr>
<td><strong>ELT 106</strong> Mechanical Engineering Graphics</td>
<td><strong>ET 106</strong> Mechanical Engineering Graphics II</td>
</tr>
<tr>
<td><strong>ELT 107</strong> Computer Applications for Technicians</td>
<td><strong>ET 107</strong> Computer Applications for Technicians</td>
</tr>
<tr>
<td><strong>ELT 110</strong> Circuits I</td>
<td><strong>ENGT 110</strong> Circuits I</td>
</tr>
<tr>
<td><strong>ELT 114</strong> Circuits II</td>
<td><strong>ENGT 114</strong> Circuits II</td>
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<tr>
<td><strong>ELT 118</strong> Computer Numerical Control</td>
<td><strong>ET 118</strong> Manufacturing III, Computer Numerical Control</td>
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<tr>
<td><strong>ELT 120</strong> Digital I</td>
<td><strong>ENGT 120</strong> Digital I</td>
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<tr>
<td><strong>ELT 122</strong> Mechanical Power Transmissions Systems</td>
<td><strong>ET 122</strong> Mechanical Power Transmissions Systems</td>
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<td><strong>ELT 124</strong> Mechanical Power Transmission Systems Lab</td>
<td><strong>ET 124</strong> Mechanical Power Transmission Systems Lab</td>
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<tr>
<td><strong>ELT 201</strong> Statics and Strength of Materials</td>
<td><strong>ET 201</strong> Statics and Strength of Materials</td>
</tr>
<tr>
<td><strong>ELT 205</strong> Advanced Computer Maintenance</td>
<td><strong>ENGT 205</strong> Advanced Computer Maintenance</td>
</tr>
<tr>
<td><strong>ELT 208</strong> Thermodynamic Applications</td>
<td><strong>ET 210</strong> Thermodynamic Applications</td>
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<tr>
<td><strong>ELT 210</strong> Devices I</td>
<td><strong>ENGT 210</strong> Devices I</td>
</tr>
<tr>
<td><strong>ELT 214</strong> Devices II</td>
<td><strong>ENGT 214</strong> Devices II</td>
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<tr>
<td><strong>ELT 220</strong> Digital II</td>
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<tr>
<td>ELT 222</td>
<td>Mechanics of Telephony</td>
</tr>
<tr>
<td>ELT 224</td>
<td>Basic Telecommunications Installation and Maintenance</td>
</tr>
<tr>
<td>ELT 226</td>
<td>Safety in the Workplace</td>
</tr>
<tr>
<td>ELT 232</td>
<td>Computer Software Maintenance</td>
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<td>ELT 234</td>
<td>Computer Hardware Maintenance</td>
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<td>ELT 240</td>
<td>Communications Electronics</td>
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<tr>
<td>ELT 243</td>
<td>Electric Power Distribution</td>
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<td>ELT 244</td>
<td>Electrical Machinery and Controls</td>
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<td>ELT 250</td>
<td>Programmable Logic Controllers</td>
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<tr>
<td>ELT 256</td>
<td>Microprocessor Fundamentals</td>
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<tr>
<td>ELT 260</td>
<td>Robotic and Industrial Automation</td>
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<td>ELT 261</td>
<td>Instrumentation and Measurements</td>
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<td>ELT 262</td>
<td>Measurement and Instrumentation</td>
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<td>ELT 264</td>
<td>Mechanical Design</td>
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<td>ELT 265</td>
<td>Applied Fluid Power</td>
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<tr>
<td>ELT 290</td>
<td>Selected Topics in Engineering Technology: (Topic)</td>
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<tr>
<td>ELT 295</td>
<td>Independent Problems</td>
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</table>

**Engineering and Electronics Technology: 2012-2013**

**New Courses**                          **Old Courses**
ELT 103 | Introduction to Engineering | ET 103 | Introduction to Engineering

**Foreign Language: 2010-2011**

**New Courses**                          **Old Courses**
FRE 101 | Elementary French I | FR 101 | Elementary French
FRE 102 | Elementary French II | FR 102 | Elementary French II
FRE 201 | Intermediate French I | FR 201 | Intermediate French I
GER 101 | Elementary German I | GER 101 | Basic German
GER 102 | Elementary German II | GER 102 | Basic German
GER 201 | Intermediate German I | GER 201 | Intermediate German
GER 202 | Intermediate German II | GER 202 | Intermediate German
<table>
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<tbody>
<tr>
<td>GEN 100 - Introduction to College</td>
<td>GE 100 - Introduction to College</td>
</tr>
<tr>
<td>GEN 102 - Foundations of Learning</td>
<td>GE 101 - Strategies for Academic Success</td>
</tr>
<tr>
<td>AGR 101 - The Economics of Food and Agriculture</td>
<td>GEN 101 - The Economics of Food and Agriculture</td>
</tr>
<tr>
<td>GEN 103 - Principles of Peer Mentoring</td>
<td>GE 103 - Principles of Peer Mentoring</td>
</tr>
<tr>
<td>GEN 104 - Applied Principles of Peer Mentoring</td>
<td>GE 104 - Applied Principles of Peer Mentoring</td>
</tr>
<tr>
<td>GEN 120 - Service Learning</td>
<td>GE 120 - Service Learning</td>
</tr>
<tr>
<td>GEN 122 - The Exemplary Tutor</td>
<td>GE 122 - The Exemplary Tutor</td>
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<tr>
<td>GEN 123 - The Exemplary Reading Tutor</td>
<td>GE 123 - The Exemplary Reading Tutor</td>
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<td>GEN 125 - Applied Meta-Thinking</td>
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## Health Physics: 2011-2012

<table>
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<tr>
<td>HPH 100</td>
<td>Health Physics Fundamentals</td>
</tr>
<tr>
<td>HPH 101</td>
<td>Introduction to Health Physics I</td>
</tr>
<tr>
<td>HPH 102</td>
<td>Introduction to Health Physics II</td>
</tr>
<tr>
<td>HPH 120</td>
<td>Introduction to Radiation Biology</td>
</tr>
<tr>
<td>HPH 201</td>
<td>Nuclear Instrumentation and Measurement I</td>
</tr>
<tr>
<td>HPH 202</td>
<td>Nuclear Instrumentation and Measurement II</td>
</tr>
<tr>
<td>HPH 246</td>
<td>Environmental Law</td>
</tr>
<tr>
<td>HP 100</td>
<td>Health Physics Fundamentals</td>
</tr>
<tr>
<td>HP 101</td>
<td>Introduction to Health Physics I</td>
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<tr>
<td>HP 102</td>
<td>Introduction to Health Physics II</td>
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<tr>
<td>HP 120</td>
<td>Introduction to Radiation Biology</td>
</tr>
<tr>
<td>HP 201</td>
<td>Nuclear Instrumentation and Measurement I</td>
</tr>
<tr>
<td>HP 202</td>
<td>Nuclear Instrumentation and Measurement II</td>
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<tr>
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<table>
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<tr>
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<td>Introduction to Homeland Security</td>
</tr>
<tr>
<td>HSM 110</td>
<td>Introduction to Emergency Management</td>
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<tr>
<td>HSM 225</td>
<td>Ethical and Legal Issues in Homeland Security</td>
</tr>
<tr>
<td>HSEM 100</td>
<td>Introduction to Homeland Security</td>
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<td>HSEM 110</td>
<td>Introduction to Emergency Management</td>
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<td>HSEM 225</td>
<td>Ethical and Legal Issues in Homeland Security</td>
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## Human Services: 2011-2012

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<tr>
<th>New Courses</th>
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<tbody>
<tr>
<td>HMS 101</td>
<td>Human Services Survey</td>
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<tr>
<td>HMS 102</td>
<td>Values of Human Services in a Contemporary Society</td>
</tr>
<tr>
<td>HMS 103</td>
<td>Theories and Techniques in Human Services</td>
</tr>
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<td>HMS 104</td>
<td>Group Dynamics for Human Services</td>
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<td>HMS 200</td>
<td>Dynamics of Human Behavior</td>
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<tr>
<td>HMS 210</td>
<td>Drugs, Society &amp; Human Behavior</td>
</tr>
<tr>
<td>HMS 211</td>
<td>Introductions to Addictions</td>
</tr>
<tr>
<td>HMS 212</td>
<td>Crisis Intervention</td>
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<tr>
<td>HMS 220</td>
<td>Cultural Diversity in Human Services</td>
</tr>
<tr>
<td>HMS 235</td>
<td>Teaching Persons with Mental Retardation</td>
</tr>
<tr>
<td>HMS 250</td>
<td>Clinical Practice in Human Services</td>
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<td>HMS 265</td>
<td>Working with Disabilities in Human Services</td>
</tr>
<tr>
<td>HMS 299</td>
<td>Special Topics in Human Services: (Topic)</td>
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<tr>
<td>SWK 124</td>
<td>Introduction to Social Services</td>
</tr>
<tr>
<td>SWK 222</td>
<td>Development of Social Welfare</td>
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### Industrial Safety: 2012-2013

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### Industrial Technology: 2012-2013

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<td>ITE 250</td>
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<td>Team Dynamics and Problem Solving</td>
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### Logistics and Operations Management: 2013-2014

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### Masonry: 2011-2012

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<td>MSY 115</td>
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<tr>
<td>Intermediate Masonry</td>
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<td>MSY 198</td>
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<td>MSY 199</td>
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<td>Brick Construction</td>
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<td>Anchors and Reinforcement</td>
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<td>MSY 251</td>
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<td>MSY 253</td>
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<td>Masonry Floors and Steps</td>
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<td>Glass Blocks and Tile</td>
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## Math: 2012-2013

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## Medical Information Technology: 2012-2013

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<td>OST 103 Medical Office Terminology</td>
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<td>MIT 104 Medical Insurance</td>
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<td>MIT 106 Introduction to Medical Transcription</td>
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<td>MIT 204 Medical Coding</td>
<td>OST 204 Medical Coding</td>
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<td>MIT 205 Advanced Medical Coding</td>
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<td>MIT 206 Medical Transcription</td>
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<td>MIT 208 Inpatient Coding</td>
<td>OST 208 Introduction to Hospital Coding</td>
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<td>MIT 212 Medications</td>
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<td>MIT 217 Medical Office Procedures</td>
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<td>MIT 227 Medical Office Software</td>
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<tr>
<td>MIT 228 Electronic Medical Records</td>
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<td>MIT 230 Medical Information Management</td>
<td>OST 230 Medical Records and Data Management</td>
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## Medical Laboratory Technology: 2013-2014

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<td>MLT 112 Urinalysis</td>
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<td>MLT 115 Serology</td>
<td>CLT 125 Serology</td>
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<td>MLT 119 Applied Laboratory</td>
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<td>MLT 1191 Applied Laboratory Part 1</td>
<td>CLT 1301 Applied Laboratory Part 1</td>
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<td>CLT 1302 Applied Laboratory Part 2</td>
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<td>MLT 205 Clinical Microbiology I</td>
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<td>MLT 207 Introduction to Clinical Diagnostic Microbiology</td>
<td>CLT 207 Introduction to Clinical Diagnostic Microbiology</td>
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<td>MLT 208 Clinical Diagnostic Microbiology I</td>
<td>CLT 208 Clinical Diagnostic Microbiology I</td>
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<td>ET 156</td>
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<td>MNG 190</td>
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<td>MNG 275</td>
<td>ET 275</td>
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<td>MNG 286</td>
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## Music: 2010-2011

<table>
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<td><strong>MU 101</strong> Folk and Traditional Music of the Western Continents</td>
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<td><strong>Dropped</strong></td>
<td><strong>MUC 171</strong> Brass Ensemble</td>
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<td><strong>Dropped</strong></td>
<td><strong>MUC 174</strong> University Chorale</td>
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<tr>
<td><strong>MUS 100</strong> Introduction to Music</td>
<td><strong>MUS 100</strong> Introduction to Music</td>
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<tr>
<td><strong>MUS 120</strong> Music Technology I</td>
<td><strong>MU 120</strong> Music Technology I</td>
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<tr>
<td><strong>MUS 121</strong> Music Technology II</td>
<td><strong>MU 121</strong> Music Technology II</td>
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<tr>
<td><strong>MUS 150</strong> Class Instruction in Piano I</td>
<td><strong>MUC 150</strong> Class Instruction in Piano</td>
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<tr>
<td><strong>MUS 151</strong> Class Instruction in Piano II</td>
<td><strong>MUC 151</strong> Class Instruction in Piano</td>
</tr>
<tr>
<td><strong>MUS 152</strong> Class Instruction in Piano III</td>
<td><strong>MUC 152</strong> Class Instruction in Piano</td>
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<td><strong>MUS 153</strong> Class Instruction in Piano IV</td>
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<td><strong>MUS 155</strong> Voice Class for Non-Music Majors</td>
<td><strong>MUC 155</strong> Voice Class for Non-Music Majors</td>
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<td><strong>MUS 170</strong> Music Theory, Aural</td>
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<td><strong>MUS 171</strong> Music Theory, Written</td>
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<td><strong>MUS 172</strong> Music Theory, Aural</td>
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<td><strong>Dropped</strong></td>
<td><strong>MUS 173</strong> Music Theory, Written</td>
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<td><strong>MUS 174</strong> Theory for Non Music Majors</td>
<td><strong>MUS 174</strong> Theory for Non Music Majors</td>
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<tr>
<td><strong>MUS 192</strong> University Chorus</td>
<td><strong>MUC 174 &amp; MUC 192</strong> University Chorale and University Singers</td>
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<td><strong>MUS 206</strong> American Music History</td>
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<td><strong>MUS 220</strong> Symphonic Music</td>
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<td><strong>MUS 222</strong> History and Sociology of Rock Music</td>
<td><strong>MUS 222</strong> History and Sociology of Rock Music</td>
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<td><strong>MUS 260</strong> Teaching Music for the Elementary Grades I</td>
<td><strong>MUS 260</strong> Teaching Music for the Elementary Grades I</td>
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<tr>
<td><strong>MUS 261</strong> Teaching Music for the Elementary Grades II</td>
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## Nuclear Medicine & Molecular Imaging: 2011-2012

<table>
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<tr>
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<td><strong>NMI 141</strong> Physics and Instrumentation I</td>
<td><strong>NMMI 141</strong> Physics and Instrumentation I</td>
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<tr>
<td><strong>NMI 142</strong> Radiation Biology and Protection</td>
<td><strong>NMMI 142</strong> Radiation Biology and Protection</td>
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<td><strong>NMI 150</strong> Clinic I</td>
<td><strong>NMMI 150</strong> Clinic I</td>
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<tr>
<td><strong>NMI 160</strong> Clinical Procedures II</td>
<td><strong>NMMI 160</strong> Clinical Procedures II</td>
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<td><strong>NMMI 161</strong> Physics and Instrumentation II</td>
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<td>NMI 220 Clinic III</td>
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**Nursing (BCTC): 2011-2012**

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<td>NRN 125 Nursing II</td>
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<td>NRN 235 Nursing III</td>
<td>NR 235 Nursing III</td>
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<td>NRN 245 Nursing IV</td>
<td>NR 245 Nursing IV</td>
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<td>NRN 255 Nursing V</td>
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**Philosophy: 2010-2011**

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<td>PHI 100 Introduction to Philosophy: Knowledge and Reality</td>
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<tr>
<td>PHI 110 Medical Ethics</td>
<td>PHL 110 Bioethics: Moral Issues in Health Care</td>
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<tr>
<td>PHI 130 Ethics</td>
<td>PHI 130 Introduction to Philosophy: Morality and Society</td>
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<tr>
<td>PHI 150 Business Ethics</td>
<td>PHL 120 Business Ethics</td>
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<tr>
<td>PHI 260 History of Philosophy I: From Greek Beginnings to the Middle Ages</td>
<td>PHI 260 History of Philosophy I: From Greek Beginnings to the Middle Ages</td>
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<tr>
<td>PHI 270 History of Philosophy II: From the Renaissance to the Present Era</td>
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**Physics: 2010-2011**

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<td>PHY 152</td>
<td>Introductory Physics II</td>
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<td>PHY 160</td>
<td>Physics and Astronomy for Elementary Teachers</td>
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<td>PHY 161</td>
<td>Introductory Physics I Laboratory</td>
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<td>PHY 162</td>
<td>Introductory Physics II Laboratory</td>
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<td>PHY 171</td>
<td>Applied Physics</td>
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<td>College Physics II Laboratory</td>
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<td>General University Physics I</td>
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**Political Science: 2010-2011**

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<tr>
<td>POL 210 Introduction to European Politics: East and West</td>
<td>PS 210 Introduction to European Politics: East and West</td>
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<td>POL 212 Culture and Politics in Developing Nations</td>
<td>PS 212 Culture and Politics in the Third World</td>
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<td>POL 235 World Politics</td>
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<tr>
<td>POL 255 State Government</td>
<td>PS 155 State Government</td>
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<tr>
<td>POL 280 Issues in Public Policy</td>
<td>PS 280 Issues in Public Policy</td>
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<tr>
<td>POL 299 Special Topics in Political Science</td>
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NOTE: POL 271 removed from general education status.

**Professional Studio Artist: 2011-2012**

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### Professional Studio Artist: 2013-2014

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### Psychology: 2010-2011

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<td>PSY 185 Human Potential</td>
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<td>PSY 230 Psychosocial Aspects of Death and Dying</td>
<td>PY 230 Psychosocial Aspects of Death and Dying</td>
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<td>PSY 297 Psychology of Aging</td>
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### Psychology: 2012-2013

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### Psychology: 2013-2014

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### Reading: 2012-2013

#### New Courses

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#### Old Courses

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### Real Estate: 2011-2012

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<td>REA 121</td>
<td>Appraising</td>
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<tr>
<td>REA 122</td>
<td>Construction and Blueprints</td>
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<td>REA 200</td>
<td>Real Estate Principles II</td>
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<tr>
<td>REA 201</td>
<td>Property Management</td>
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<td>REA 202</td>
<td>Real Estate Investments I</td>
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<td>REA 203</td>
<td>Commercial and Industrial Property</td>
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<td>Farm Brokerage</td>
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<td>Real Estate Investments II</td>
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<td>REA 220</td>
<td>Real Estate Brokerage Management</td>
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<td>Basic Income Approach to Property Validation</td>
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<td>Uniform Standards of Professional Appraisal</td>
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<td>Selected Topics in Real Estate</td>
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#### Old Courses

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<td>Construction and Blueprints</td>
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<td>Commercial and Industrial Property</td>
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### Religion: 2010-2011

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*Cross-listed with ANT 130*
### Theatre: 2010-2011

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<td>Acting I: Fundamentals of Acting</td>
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<td>Acting Techniques</td>
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<td>Fundamentals of Production</td>
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<td>Summer Theatre Workshop</td>
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<td>Introduction to Dramatic Literature</td>
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<td>Acting for the Camera</td>
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<td>Acting II: Scene Study (Realism)</td>
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<td>Acting III: Scene Study (Styles)</td>
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<td>THA 260</td>
<td>Stagecraft</td>
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<td>THA 283</td>
<td>American Theatre</td>
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<td>Introduction to Theatre: Principles and Practice</td>
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### Transitional Mathematics: 2012-2013

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### NEW COURSE

### Women’s and Gender Studies: 2010-2011

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<td>WS 201 Introduction to Women’s Studies in the Arts and Humanities</td>
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</table>
Appendix F

Gainful Employment Disclosures

These disclosures provide important information about the educational debt, earnings, and completion rates of students who attend the program. Below you will find links to the GE disclosures for each college.

Ashland Community and Technical College:

Big Sandy Community and Technical College:

Bluegrass Community and Technical College:
http://www.bluegrass.kctcs.edu/Academics/Gainful_Employment_Disclosure_Information.aspx

Elizabethtown Community and Technical College:

Gateway Community and Technical College:

Hazard Community and Technical College:

Henderson Community College:

Hopkinsville Community College:

Jefferson Community and Technical College:

Madisonville Community College:

Maysville Community and Technical College:

Owensboro Community and Technical College:

Somerset Community College:

Southcentral Kentucky Community and Technical College:

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