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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.
Message from Dr. Jay Box, KCTCS President

I’m so happy you’re considering improving your education and your life! My goal is for you not only to enter college, but also to complete college, and you’re taking that first important step by checking out the programs and classes we offer. With campuses close to you and hundreds of online offerings, I’m sure you’ll find just what you’re looking for.

You’re making a smart choice by choosing one of the 16 KCTCS colleges. Our tuition is the lowest in the state – less than half of what you’d pay at a four-year university. As you prepare to move forward in your higher ed journey, our faculty and staff will be there with you every step of the way. Our role is to make sure you succeed, so please let us know what we can do to help. If you have questions about anything you see in the catalog, how to enroll, financial aid or any other concern, contact the KCTCS college nearest you or call (855) 465-2827. Our Go KCTCS! call center never closes, so anytime you have a question, someone will be there to answer it. You’ll also find more information about our colleges at kctcs.edu.

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

Sincerely,

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

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

The 16 colleges of KCTCS have more than 70 campuses strategically located across the Commonwealth — from Ashland to Paducah and from Covington to Bowling Green — all within a 30-minute drive of 95 percent of all Kentuckians.

Students can earn three types of credentials — certificates, diplomas and associate degrees including: associate in arts, associate in science and associate in applied science. We offer more than 700 career-related programs. Additionally, KCTCS is the largest provider of online learning in the state offering more than 77 online programs.

Our programs target high growth industry sectors such as healthcare, manufacturing, energy, IT/business and transportation/logistics. Some programs in these fields can be completed in four months or less.

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

Last year alone, KCTCS trained and educated:

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

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

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

To learn more about KCTCS, visit kctcs.edu.

Mission Statement

Kentucky Community and Technical College System

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

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

Academic Calendar

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

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

The following closings are applicable to all KCTCS institutions:

July
4 Independence Day observed

September
4 Labor Day

November
23 Thanksgiving Day
24 Day After Thanksgiving

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

January
1 Institutional Closing
15 Martin Luther King Day

February
19 President’s Day

March
30 Good Friday (1/2 Day)

May
28 Memorial Day
KCTCS Leadership*

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

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

Foundation Board of Directors
Raymond Daniels, Chair
Linda L. Rumpke, Treasurer
Barry S. Bishop, Secretary
F. Lee Hess, Immediate Past Chair
Anthony Campbell
Greg Higdon
Phillip Bruce Leslie
Dr. C. Nelson Grote
Dr. Phil Neal
Marcia L. Roth, Ex-Officio Member
Dr. Jay K. Box, Ex-Officio Member

President
Dr. Jay K. Box

President’s Cabinet
Dr. Paul B. Czarapata, Vice President
Dr. Larry Ferguson, Vice President
Mr. Wendell A. Fallowell, Vice President
Dr. Gloria S. McCall, Vice President
Hon. Michael Murray, Vice President
Dr. Rhonda R. Tracy, Chancellor

College Leadership

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

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

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

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

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

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

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

Hopkinsville Community College
Dr. Dennis Michaelis
Interim President/CEO

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

Madisonville Community College
Dr. Cynthia Kelley
President/CEO

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

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

Somerset Community College
Dr. Jo Marshall
President/CEO

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

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

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

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

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

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

Academic Programs

Transfer Curricula
- Associate in Arts
- Associate in Science

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

- Air Conditioning Technology (C, D)
- Appalachian Studies (C)
- Applied Process Technologies (C, A)
- Automotive Technology (C, D)
- Business Communications (C)
- Business Foundations (C)

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

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

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

General Information

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

Administration
President – Dr. Kay Adkins (606) 326-2043
Interim Dean of Technical Education and Workforce – Dr. Keith Brammell (CAO) (606) 326-2426

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

Faculty

Allen, Joseph D, Instructor, MSN, Chamberlain College of Nursing, 2015
Alley, Alan C, Associate Professor, DC, Palmer College of Chiropractic, 1998
Bailey, Danny G, Professor, MS, University of Kentucky, 1971
Blair, Kathy L, Assistant Professor, MSN, University of Phoenix, 2012
Boggs, Christopher J, Associate Professor, AAS, Institute of Electronics Technology, 1992
Bowman, Curtis D, Professor, Certification, Collins Career Center, 1979
Bradley, John M, Professor, Certification, National Institute for Automotive Service Excellence, 1999
Bradley, Peggy L, Professor, BS, Morehead State University, 1979
Brammell, Keith, Professor, DMD, University of Kentucky, 1985
Brown, Sara A, Professor, MLS, University of Kentucky, 2003
Bryant, Sherri Nicole, Associate Professor, BUS, Morehead State University, 2010
Cassady, Jeffrey M, Assistant Professor, AAS, Ashland Community and Technical College, 2013
Cavins, Jacqueline L, Professor, BS Morehead State University, 2002
Childress, David C, Professor, Morehead State University, 1985
Conley, Richard R, Professor, MS, University of Kentucky, 1973
Cooksey, Daniel P, Associate Professor, MS, Marshall University, 1979
Cox, Ashley J, Instructor, MS, Western Kentucky University, 2015
Cullum, Randolph, Associate Professor, MA, Marshall University, 1981
Davis, John Mark, Associate Professor, MBA, Morehead State University, 1985
Davis, Virgil K, Professor, MA, Morehead State University, 1986
Edwards, Kathryn Hare Tucci, Professor, MA, Marshall University, 1991
Flath, Mary C, Professor, PhD, Medical University of South Carolina, 1991
Flouhouse, Steven D, Professor, MS, Marshall University, 1991
Fosson, Woodrow, Associate Professor, Associate of Applied Technology, ACTC, 2001
Fosterwebb, Wendy, Professor, MFA, Georgia Southern University, 2004
Fraile II, Donald L, Associate Professor, JD, University of Kentucky, 1974
Frye, Bettie E, Professor/Librarian I, MLS, University of South Carolina, 1989
Griffith-Green, Nicole, Professor, EdD, University of the Cumberlands, 2015
Hall, James C, Assistant Professor, MA, University of Louisville, 2014
Hall, Ralfred J, Professor, MS, Morehead State University, 1993
Henderson, Rachel, Associate Professor, MSN, Chamberlain College of Nursing, 2012
Henry, Harold Edmond, Associate Professor, AAS, Ashland Technical College, 2002
Howard, Warren H, Professor, MA, Morehead State University, 2003
Howerton, Deena, Assistant Professor, BSN, Bellarmine College, 2001
James, Jesse J, Assistant Professor, AAS, Ashland Community and Technical College, 2010
Johns, Robin D, Assistant Professor, AME, Morehead State University, 1987
Joy, Jonathan, Associate Professor, MA, Marshall University, 2004
Justice, Debra, Professor, MA, Marshall University, 1997
Klinepeter, Pamela, Professor, MLS, University of Kentucky, 2005
Kumar, Ramanurthy Chandra, Professor, MS, Florida Institute of Technology, 1986
Martin, Frances, Associate 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, Associate Professor, MA, Marshall University, 1995
McDavid, Cristina C, Professor, MBE, Morehead State University, 1987
McGinnis, Elizabeth, Associate Professor, MSN, University of Phoenix, 2014
McGinnis, Vicki, Assistant Professor, MA University of Kentucky, 1994
McGlone, John K, Associate Professor, MS, Morehead State University, 1994
Meadows, Kayla, Instructor, MS, Eastern Kentucky University, 2015
Mengistu, Ashalew, Associate Professor, PhD, University of Wales College of Medicine, 2002
Merritt, Richard P, Associate Professor, MA, Marshall University, 2011
Mohabedian, Hossein, Professor, MA, Marshall University, 1983
Music, Stephen I, Assistant Professor, AAS, Big Sandy Community and Technical College, 2012
O’Bell, Donald Ray, Professor, MS, Marshall University, 1984
Ratliff, Terry Lynn, Associate Professor, BSN, Marshall University, 1993
Riggs, Mark, Associate Professor, MS, Mississippi State University, 2000
Roark, Mary L, Assistant Professor, MSN, Bellarmine University, 2007
Robinson, Natalie, Associate Professor, MSN, Bellarmine University, 2007
Sargent, William K, Assistant Professor, BS, Liberty University, 2005
Shelton, Cynthia, Professor, AME, Marshall University, 1992
Shortridge, Mary E, Professor, MA, Morehead State University, 1982
Skidmore, Ashley, Associate Professor, MA, University of Kentucky, 2006
Smith, Mark S, Assistant Professor, BS, Morehead State University, 1999
Smith, Mourine k, Assistant Professor, AAS, Somerset Community College, 2010
Stevens, Tyler B, Instructor, AAS, Ashland Community and Technical College, 2009
Tackett, Michael B, Instructor, AS, Ashland Community and Technical College, 2008
Thompson, Janet C, Instructor, MS, Marshall University, 2013
Thornton, Jack D, Associate Professor, AAS, Columbus State University, 1986
Tussey, Laura L, Associate Professor, MA, Marshall University, 2000
Wallace-Vernatter, Susan Y, Assistant Professor, BS, Belhaven University, 2008
Webb, Molly J, Professor, MBA, Bellarmine College, 1982
Wheeler, Thomas, Certification, Ashland State Vocational, 1986
Mission Statement/Status of Accreditation

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

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

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

Academic Programs

Transfer Curricula

Associate in Arts
Associate in Science

Occupational/Technical Curricula

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

Air Conditioning Technology (C, D, A)
Applied Engineering Technology (C)
Auto Body/Collision Repair Technology (C, D)
Automotive Technology (C, A)
Broadband Technology (C, A)
Business Communications (C)
Business Foundations (C)
Business Studies:
  - Administrative Office Technology (C, D)
  - Business Administration Systems (C, D, A)
  - Medical Information Technology (C, D, A)
Civil Engineering Technology (A)
Computer Aided Drafting and Design (C, D)
Computer and Information Technologies (C, A)
Computerized Manufacturing and Machining (C, D, A)
Construction Technology (C, D)
Cosmetology (C, D)
Criminal Justice (C, A)
Culinary Arts (C, D)
Dental Assisting/Dental Hygiene (D, A)
Diesel Technology (C, D)
Education (A)
Emergency Medical Technician (C)
Energy Technologies (C)
Engineering and Electronics Technology (C, D, A)
Fire/Rescue Science Technology (C, D, A)
General Occupational/Technical Studies (A)
Health Science Technology (A)
Human Services (C, A)
Interdisciplinary Early Childhood Education (C)

Manufacturing Engineering Technology (C)
Manufacturing Industrial Technology:
  - Electrical Technology (C, D, A)
  - Industrial Maintenance Technology (C, D, A)
  - Masonry (C, D)
  - Mining Technology (C, A)
  - Nursing (A)
  - Nursing Assistant – Advanced (C)
  - Physical Therapist Assistant (A)
  - Practical Nursing (C, D)
  - Plumbing (C)
  - Respiratory Care (C, A)
  - Surgical Technology (D, A)
Surveying & Mapping Technology (C, D, A)
Truck Driver Training (C)
Visual Communication
  - Design and Technology (C, D, A)
  - Multimedia (C)
  - Printing (C, D)
  - Welding Technology (C, D, A)

Contact Information

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

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

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

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

General Information

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

Academic Center for Excellence
(606) 889-4834

Academic Services (Program Information)
(606) 889-4794

Admissions & Records Office
(606) 886-3863 Option 2

Adult Education
(606) 788-2887

Advising Center
(606) 889-4775

Business Services
1-855-GO-BSCTC (1-855-462-7282)

Career Education & Workforce Development
(606) 218-1276

Disability Services
(606) 886-7359

Financial Aid
1-855-GO-BSCTC (1-855-462-7282)

Library
(606) 888-4834

President’s Office
(606) 886-7371
Registrar
Security
Strategic Communications
Student Services
Website

Administration

President Vacant
Chief Institutional Officer Bobby McCool
Chief Financial Officer Michelle Meek
Interim Chief Academic Officer/Dean of Academic Services Myra Elliott
Dean of Career Education & Workforce Dev Kelli Hall Chaney
Dean of Information Technology & Facilities Mgmt John Herald
Dean of Research, Planning & Analysis Dr. Chris Daniel
Dean of Student Services Jimmy Wright
Director of Business/Industry Development William Danny Tonkin
Director of Enrollment Management Billie Jean Cole
Director of East KY Science Ctr and Planetarium Steven J Russell
Director of Financial Aid Cathy Hurd-Crank 1-855-GO-BSCTC
Director of Grants Development Connie Estep
Director of Human Resources Bryon L. Goble
Director of Information Technology Casey Music
Director of Library Services Kathy Lowe
Director of Performing Arts/Executive Director of the Mountain Arts Center Clayton Case
Director of Strategic Communications Joshua L. Ball

Facility

Adam, Kelly J, Professor, MS, Southern Connecticut State University, 1993
Allen, Collista, Associate 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, MSSW, University of Louisville, 1996
Barlow, Donald L, Associate Professor, PhD, Ball State University, 1987
Bays, Leslie M, Assistant Professor, MA, Morehead State University, 2010
Bell, Daniel E, Professor, MA, Northern Illinois University, 1986
Bennin, Hope E, Professor, MA, University of Wisconsin, 1987
Bowman, William, Assistant Professor/Librarian III, MA, University of Kentucky, 2008
Brooks, Michael Aaron, Instructor, AAS, Big Sandy Community & Technical College, 2017
Burchett, Nicole, Associate Professor, MSN, Northern Kentucky University, 2015
Cantrell, Etta L, Associate Professor, MHE, Morehead State University, 1985
Carroll, Charlene, Assistant Professor, MSN, University of Kentucky, 1996
Carroll, John, Professor, MA, Morehead State University, 1999
Cole, Elizabeth M, Professor, MA, University of Iowa, 1989
Compton, Joseph L, Professor, BS, Morehead State University, 2013
Conn, Stephanie, Assistant Professor, MAE, Western Kentucky University, 2016
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
Dickerson, Cindy, Associate Professor, MA, Morehead State University, 2008
Dixon, Eric, Associate Professor, DMD, University of Kentucky, 1991
Durham, Roberta, Assistant Professor, BSN, Morehead State University, 2009
Elliott, Myra T, Professor, MSN, University of Kentucky, 1993
Fields, Carmen, Associate Professor, BS, Western Kentucky University, 2013
Fields, Michelle, Professor, MA, Marshall University, 1995
Fitzpatrick, John J, Assistant Professor, BS, Morehead State University, 2013
Gambill, Jessica, Assistant Professor, MA, Union College, 2004
Gillis, Bill R, Professor, PhD, Florida State University, 1990
Hackney, Randal Clinton, Assistant Professor, MS, Morehead State University, 2007
Hall, Joshua, Assistant Professor, MA, Morehead State University, 2004
Hall, Laura R, Professor, MA, Morehead State University, 2004
Hance, Randell O, Professor, BS, Morehead State University, 2011
Harless, Irma Kay, Associate Professor, BSN, Morehead State University, 2013
Hicks, Jeffery 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
M.S.L.S., 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
Keathley, Heath, Assistant Professor, AAS, Big Sandy Community & Technical College, 2013
Kimner, DeWayne, Instructor, Diploma, Big Sandy Community & Technical College, 2003
Lawson, Dianna, Associate Professor, MSN, University of Kentucky, 1997
LeBrun, Terri E, Professor, MS, Morehead State University, 2009
Leedy, Jennifer L, Associate Professor, EdD, Morehead State University, 2013
Lewis, Lori Deanne, Professor, BS, Morehead State University, 2011
Little, Conda G, Professor, MA, Morehead State University, 2001
Lowe, Kathy, Associate Professor/Director of Library Services, MSLS, Florida State University, 2005
Madden, Darrell E, Associate Professor, MBA, University of Kentucky, 1980
Matjasic, Thomas D, Professor, PhD, Miami University, 1982
Maynard Jr, John L, Associate Professor, AAS, Big Sandy Community & Technical College, 2008
McClure, Jimmy, Associate Professor, BS, Morehead State University, 2011
McKenzie, Cynthia L, Professor, MBA, Morehead State University, 2001
McKenzie, Keithen Douglas, Professor, MS, Morehead State University, 2003
McKenzie, Marsha, Associate Professor, MA, Morehead State University, 2012
McKenzie, Vanessa Jean, Professor, MS, Morehead State University, 2005
Miller, Kathryn L, Professor, EdD, Morehead State University, 2015
Moore, Charles K, Professor, AAS, Big Sandy Community & Technical College, 2007
Mullins, Rebecca Ann, Professor, MA, Morehead State University, 2003
Music, Lisa J, Professor, PhD, University of Louisville, 2013
Ousley, Tina Lee, Professor, MS, Morehead State University, 2003
Pack, Diana L, Professor, MA, Morehead State University, 2003
Proffitt, Alan David, Professor, DMin, Asbury Theological Seminary, 2014
Ratliff, Teldike, Associate Professor, MSN, Kaplan University, 2010
Ray, Pamela, Associate Professor, BS, Western Kentucky University, 2013
Ritchie, Olivia, Instructor, MS, Eastern Kentucky University, 2016
Rodenberg, Shawna, Lecturer, MFA, Bennington College, 2012
Roe, Richard T, Lecturer, EdD, University of Kentucky, 2011
Saad, Sandra, Professor, MA, University of Kentucky, 1987
Saad, Toufic A, Professor, MS, University of Kentucky, 1988
Skeens, Melissa B, Professor, BA, Morehead State University, 2010
Sloane, Greta, Associate Professor, MA, Trinity College, 2003
Smallwood, Patsy, Instructor, AAS, Big Sandy Community & Technical College, 2016
Smith, Dwight P, Professor, MA, Bowling Green State University, 1979
Smith, Matthew, Associate Professor, MA, East Tennessee State University, 2009
Smith, Timothy, Associate Professor, MFA, University of North Carolina at Greensboro, 1993
Sofyan, Agus, Associate Professor, PhD, University of Kentucky, 2004
Stewardson, Forrest J, Professor, BS, Morehead State University, 1992
Sykes, Pamela J, Professor, MA, Morehead State University, 2002
Thacker, Joshua, Associate Professor, MAT, Morehead State University, 2008
Thomas, Shirley L, Professor, PhD, University of Louisville, 1993
Thompson, Paul D, Professor, PhD, Oregon State University, 1991
Thompson, Paula B, Professor, MBE, Morehead State University, 1992
Turner, Garrison, Assistant Professor, BS, Ball State University, 2011
Valade, Judith E, Professor, MA, Texas A & M Corpus Christi, 2002
VanHoosen II, Charles W, Associate Professor, AAS, Big Sandy Community & Technical College, 2012
Varney, Lesley Dean, Assistant Professor, BS, Eastern Kentucky University, 1980
Vierzehn, Zhenzhuo, Professor, PhD, China University, 1992
Vierheller, Thomas L, Professor, PhD, Ohio University, 1999
Wagner, Kathy A, Professor, MS, Kansas State University, 1974
Wallen, Mary Stepp, Professor, MA Indiana State University, 1997
Watts, Mark A, Professor, MA, Eastern Kentucky University, 2004
Wright, Randall Keith, Instructor, AAS, Big Sandy Community & Technical College, 2015
Mission Statement/Status of Accreditation

Bluegrass Community and Technical College (BCTC) transforms the Bluegrass Region - one student 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 (C, A)
- Medical Information Technology (C, D, A)
- Supply Chain Management (A)
- Civil Engineering Technology (A)
- Computer Aided Drafting and Design (C, D, A)
- Computer and Information Technologies (C, A)
- Computerized Manufacturing and Machining (C, D, A)
- Construction Technology (C, D, A)
- Cosmetology (C, D)
- Criminal Justice (C, A)
- Dental Hygiene (A)
- Diagnostic Medical Sonography (A)
- Education (A)
- Emergency Medical Services – Paramedic (C)
- Emergency Medical Technician (C)
- Energy Technologies (C)
- Engineering and Electronics Technology (C, D, A)
- Environmental Science Technology (A)
- Environmental Technology (C)
- Equine Studies (C, D, A)
- Emergency Medical Technician (C)
- Filmmaking Script to Screen (C)
- Fire/Rescue Science Technology (C, D, A)
- General Occupational/Technical Studies (A)
- Health Information Technology (C, A)
- Human Services (C, A)
- Information Management and Design (A)
- Integrated Engineering Technology (C, A)
- Interdisciplinary Early Childhood Education (C, D, A)
- Manufacturing Industrial Technology:
  - Electrical Technology (C, D, A)
  - Industrial Maintenance Technology (C, D, A)
- Medical Assisting (C, D, A)
- Nuclear Medicine and Molecular Imaging Technology (A)
- Nursing (A)
- Pharmacy Technology (D)
- Practical Nursing (C, D)
- Radiography (A)
- Real Estate (C)
- Respiratory Care (C, A)
- Security Management (C)
- Surgical Technology (A)
- Welding Technology (C, D, A)

Contact Information

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

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

Mission Statement/Status of Accreditation

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

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

Mission Accomplished by Providing:

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

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

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

Academic Programs

Transfer Curricula
- Associate in Arts
- Associate in Science

Occupational/Technical Curricula
- 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.

Occupational/Technical Curricula:
- 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)
- Diagnostic Medical Sonography (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)
- Health Science Technology (A)
- Human Services (C, A)
- Interdisciplinary Early Childhood Education (C, D, A)
- Manufacturing Industrial Technology:
  - Electrical Technology (C, D, A)
  - Industrial Maintenance Technology (C, D, A)
- Nursing (A)
- Plumbing Technology (C, D, A)
- Practical Nursing (C, )
- Radiography (A)
- Real Estate (C)
- Respiratory Care (C, A)
- Social Media Marketing (C)
- Welding Technology (C, D, A)

Contact Information

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

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

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

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

General Information

(270) 769-2371; (855)760-ECTC
Counseling, Advising & Transfer (270) 706-8695
Disability Services (270) 706-8455
Human Resources (270) 706-8819
Library (270) 706-8812
Public Relations (270) 706-8530
Veterans Affairs (270) 706-8815
Workforce Solutions (270) 706-8700
Website elizabethtown.kctcs.edu
Administration

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

Faculty

Barrow, Ramona, Associate Professor, MS, Strayer University, 2004
Beauchamp, Cheryll, Assistant Professor, MBA, DeVry University, 2008
Biddle, Mary, Assistant Professor, MSN, Walden University, 2012
Blanks, Rhonda, Associate Professor, MSN, University of Phoenix, 2010
Bow, Bobby K, Associate Professor, 21 years teaching experience, 22 years occupational experience
Bratcher, Tracy Renea, Professor, MA, Western Kentucky University, 1998
Brookman, Douglas W, Associate Professor, AAS/AAT, Elizabethtown Technical College, 2000
Brothers, Stephanie, Instructor, BS, University of Louisville, 2011
Brown, Charles J, Professor, MBA, University of Louisville, 1969
Brown, Margaret, Associate Professor, MA, Western Kentucky University, 2007
Brown, Shawn, Associate Professor, MS, Western Kentucky University, 2014
Cameron, Sandra W, Professor, ME, University of Louisville, 2007
Cantrell, Douglas E, Professor, MA, University of Kentucky, 1985
Cantrell, Lisa A, Professor, MA, Morehead State University, 1986
Chandler-Cousins, Lois, Associate Professor, MEd, University of North Carolina, 1997
Chism, John, Associate Professor, AAS, Elizabethtown Community & Technical College, 2002
Cote, Frederica Sue, Professor, AS, Sullivan University, 1995
Clemens, Jerry L, Professor, MS, Eastern Kentucky University, 2010
Cole, William, Associate Professor MS, Murray State University, 2001
Condif, Sara E, Associate Professor, MAE, Western Kentucky University, 2007
Cooper, Yavaletta K, Assistant Professor, MS, Delta State University, 2012
Cordova, Timothy M, Professor, MA, Midwestern State University, 2002
Coulston, Charles, Assistant Professor, MS, University of Kentucky, 2006
Coy, Julie S, Professor, MAE, Western Kentucky University, 1998
Csonka, Thomas Allen, Assistant Professor AAS, Elizabethtown Community and Technical College, 2013
Davis, John D, Associate Professor, PhD, University of Kentucky, 2003
Dile, Beverly, Professor, MA, West Virginia University, 1984
Dixon, Lucinda, Assistant Professor, DVM, Auburn University, 2010
Doty, Brent Morgan, Professor, MA, Western Kentucky University, 2003
Dryden, John, Associate Professor, PhD, University of Louisville, 2013
Edwards, Sarah, Associate Professor, MS, Walden University, 2007
Eicher, Katrina M, Professor, MA, University of Nebraska, 1989
Embry, Robin D, Professor, MSN, University of Louisville, 1994
Erwin, Jill, Associate Professor, MA, University of Louisville, 2004
Faherty, Erin G, Instructor, MA, Northern Illinois University, 1992
Anger, Amy, Associate Professor, MFA, Spalding University, 2009
Gabehart, Stephen, Associate Professor, AS, Western Kentucky University, 2008
Galloway, Joseph, Associate Professor, MS, Western Kentucky University, 2005
Glutting, Martha J, Professor, MSN, University of Louisville, 1989
Hamilton, Anna, Instructor, MA, St. Catharine College, 2014
Haque, Khondaker E, Professor, MA, University of Pittsburgh, 1981
Harper, Pamela, Professor, MA, SCT, Murray State University, 1980
Harris, Robert L, Professor, MA, Western Kentucky University, 1975
Hart, Judy A, Associate Professor, MEd, University of Louisville, 1991
Hawkins, Jacqueline, Associate Professor, MA, Florida State University, 2006
Hazzard, Michael W, Professor, BS, Western Kentucky University, 2007
Henderson, JoNell, Assistant Professor, MBA, Amberton University, 1989
Hendricks, Arthur A, Professor, AAS, Elizabethtown Technical College, 2001
Hicks, MeLeah Dyer, Professor, MA, Western Kentucky University, 1994
Higdon, Rebecca, Associate Professor, MS, University of Louisville, 2011
Holman, Richard, Associate Professor, MBA, Georgia State University, 1976
Hornback, Mary C, Professor, MA, Western Kentucky University, 1989
Howard, Linda G, Professor, MAE, Western Kentucky University, 1980
Johnson, Cyril, Associate Professor, BS, Western Kentucky University, 2006
Kelley, Lawrence, Associate Professor, MA, University of Memphis, 2006
Kellie, Shawn A, Professor, PhD, University of Louisville, 2005
Kennedy, Kevin, Professor, MA, Indiana University, 1996
Kroll, Daniel, Associate Professor, AAS, Elizabethtown Community & Technical College, 2008
Likins, Stephen S, Associate Professor, AS, Western Kentucky University, 1999
Lilveryn, Deena, Associate Professor, MA, University of Louisville, 2009
Lindsay, Rebecca, Instructor, BS, University of Missouri-Kansas City, 2012
Lloyd, Daniel Montgomery, Associate Professor, MS, Eastern Illinois University, 1998
Logsdon, Charles G, Professor, MA, University of Louisville, 1999
Lowe, Robert Alan, Professor, AAS, Elizabethtown Technical College, 2010
Macellack, Laurie A, Professor/Library, MLA, University of Kentucky, 1992
Madras, Navin, Associate Professor, MA, Marquette University, 2001
Massaroni, Nolan, Instructor, AAS, Community College of the Air Force, 1995
McFalls-Smith, Tiffany, Associate Professor, MS, Southeastern Louisiana University, 2004
Meredith, Rosemary L, Professor, BS, University of Louisville, 1995
Metzger, Revel L, Professor, MA, Western Kentucky University, 1999
Meyer, Callista, Associate Professor / Librarian II, MLS, University of Kentucky, 2007
Mihalos, Michael, Assistant Professor, MS, University of Maine, 2007
Moreno, Alberto Jose, Associate Professor, MA, University of Louisville, 2001
Mudd, Susan G, Professor, MSN, Spalding University, 1990
Murley, James I, Professor, PhD, University of Louisville, 2012
Nail, Joe J, Professor, BS, University of Louisville, 2000
Nason, Dean W, Associate Professor, MA, Western Kentucky University, 1979
Nusbaumer, David D, Associate Professor, MA, University of Montana, 1992
Ottman, Darla Kaye, Instructor, MS, Western Kentucky University, 1991
Owens, Johnny, Professor, MA, Western Kentucky University, 1986
Owlsely, Wanda D, Professor, PhD, University of Louisville, 2009
Page, Martha, Associate Professor, MS, Vanderbilt University, 1979
Parrett, Kevin, Assistant Professor, MS, Sullivan University, 2005
Pate, Lloyd, Associate Professor, AAS, Elizabethtown Technical College, 2003
Putnam, Wanda E, Professor, MA, Western Kentucky University, 1979
Potetz, Gordon D, Associate Professor, AS, Western Kentucky University, 1997
Raizor, Glenn, Associate Professor, AAS, Elizabethtown Community & Technical College, 2005
Ray, Rachel, Associate Professor, MA, Indiana University, 2005
Reed, Joseph, Instructor, AAS, Elizabethtown Community & Technical College, 2008
Richard, Amanda, Associate Professor, MS, Texas & M University, 2011
Rigney, Mary Alisa, Associate Professor, MA, Western Kentucky University, 2001
Rowley, Jeffery, Professor, AAS, Elizabethtown Community & Technical College, 2005
Roberts, Phillip, Associate Professor, MBA, University of Phoenix, 2011
Schork, James E, Professor, EdD, Northern Illinois University, 1994
Shank, Kevin, Assistant Professor, MA, University of Louisville, 2008
Slone, Anthony, Associate Professor, MBA, Ashland University, 2001
Spalding, Jared C, Professor, BS, Western Kentucky University, 2002
Spratt, Sharon L, Professor, MA, Western Kentucky University, 1989
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
Thomas, Dora Kay, Professor, MSN, Western Kentucky University, 2005
Towell, Elizabeth G, Professor, MA, University of Kentucky, 1995
Valora, Joseph Lee, Associate Professor, AAS, Elizabethtown Community and Technical College, 2013
Waldron, John, Instructor, Ph.D, Texas A & M University, 2002
Walston, Patricia, Associate Professor, MA, University of Louisville, 2000
Wicks, Edward, Assistant Professor, MS, Syracuse University, 2001
Wiles, Matthew W, Assistant Professor, PhD, University of Louisville, 2014
Williams, Barry A, Instructor, MA, Austin Peay State University, 2010
Williams, Richard D, Associate Professor, MA, Western Kentucky University, 1978
Wolf, Joe, Associate Professor, PhD, University of Kentucky, 1992
Wolfe, Martha T, Professor, MS, University of Kentucky, 1978
Woodson, Robert, Associate Professor, AAS, Elizabethtown Community & Technical College, 2004

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

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

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

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

Academic Programs

Transfer Curricula
Associate in Arts
Associate in Science

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

Advanced Manufacturing (C)
Air Conditioning Technology (C, D)
Apprenticeship Studies (A)
Auto Body/Collision Repair Technology (C, D)
Automotive Technology (C, D)
Business Foundations (C)
Business Studies:
Business Administration Systems (C, D, A)
Supply Chain Management (C, A)
Computer and Information Technologies (C, A)
Computerized Manufacturing and Machining (C, D)
Cosmetology (C, D)
Criminal Justice (C, A)
Diesel Technology (C, D)
Education (A)
Emergency Medical Services – Paramedic (C, A)
Emergency Medical Technician (C)
Energy Technologies (C, A)
Fire/Rescue Science Technology (C, D, A)
General Occupational/Technical Studies (A)

Health Information Technology (C, A)
Human Services (C, A)
Interdisciplinary Early Childhood Education (C, D, A)
Kentucky Medication Aide (C)
Manufacturing Engineering Technology (C, A)
Manufacturing Industrial Technology:
   Electrical Technology (C, D, A)
   Industrial Maintenance Technology (C, D, A)
Massage Technology (C, A)
Medicaid Nurse Aide (C)
Medical Assisting (C, A)
Nursing (A)
Plumbing Technology (C)
Practical Nursing (D)
Truck Driver Training (C)
Welding Technology (C, D, A)

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

Boone Campus
500 Technology Way
Florence, KY 41042

Edgewood Campus
790 Thomas More Parkway
Edgewood, KY 41017

Urban Metro Campus
516 Madison Avenue Covington, KY 41011

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

Dr. Fernando Figueroa
Jane Frantz
Dr. Teri VonHandorf
Jamie Younger
Carissa Schutzman
Dr. Amber Decker
Ingrid Washington
Doug Penix
Mallis Graves
Dr. Susan Santos
Dr. Amy Carrino
Andre Washington
Amber Carter
Dee Wright
Sam Collier
Andre Washington
Peg Russell
Michelle Sjogren
Tiffany Minard
Dana Fransxman
Shelby Krentz
Christi Godman
Zana Smith
Jennifer Noble
Sandy Ortman-Tomlin
Phyllis Yeager
Melissa Sears
Steve Poppel
Denise Fritsch
George Hall
Rose Mueller
Melani Stallkamp
Ann Schultz
Tim Chesser
Anita Adkins
Dr. Kerri McKenna

Faculty

Albert, Stephanie Winter, Associate Professor, MEd, Northern Kentucky University, 1993
Baugh, Stacey L, Instructor, AAS, Beckham College, 2009
Bethel, Carol L, Professor, MBA, Xavier University, 1989
Bloomer, Dawn, Assistant Professor, MPH, Walden University, 2009
Blum-Pretty, Sherry, Assistant Professor, MA, Northern Kentucky University, 2010
Bowen, Richard, Professor, AAB, Cincinnati State Technical and Community College, 1976
Burch, Courtney, Associate Professor, MA, Northern Arizona University, 2009
Camn, Jana, Associate Professor, MEd, Northern Kentucky University, 1981
Carrino, Amy, Associate Professor, JD, Salmon P Chase College of Law, 1988
Carroll, John, Instructor, JD, Salmon P Chase College of Law, 2000
Carter, Amber, Associate Professor, BS, Eastern Kentucky University, 2009
Cathcart, John, Associate Professor, MS, Texas A&M University, 2010
Chaney, Susan, Professor, MEd, Northern Kentucky University, 1980
Collier, Samuel E, Associate Professor, BA, Northern Kentucky University, 2013
Comperotto, William J, Instructor, MA, Miami University, 2008
Crawford, Charles, Instructor, 3 Years Teaching Experience, 11 Years Occupational Experience, ASE Master Certification
Carr, Karen, Instructor, MS, St. Joseph University, 1993
Da Silva, Eares, Associate Professor, MA, Indiana State University, 2008
Deavy, Margaret S, Instructor, BSN, Northern Kentucky University, 2004
DeBerry, John, Associate Professor, MA, University of Wyoming, 2003
Deeley Willhite, Holly Michelle, Professor, PhD, University of Louisville, 2003
Dicke, Alexandria D, Instructor, BA, Northern Kentucky University, 2013
Donahue, William, Instructor, AAS, Bluegrass Community and Technical College, 2012
Donoho, Kevin H, Associate Professor, AS, University of the State of New York, 1987
Down, Sharon, Assistant Professor, MA, University of Virginia, 1993
Ervin, Justin, Associate Professor, PhD, Northern Arizona University, 2011
Fitzgerald, Ty E, Instructor, MEd, Miami University, 2013
Frazier, Paul, Associate Professor, PhD, University at Albany SUNY, 2001
Fritsch, Denise, Librarian II, MS, University of Kentucky, 2007
Fritz, Diane, Associate Professor, MS, Medical College of Ohio, 1997
Gallagher, 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
Gyarmati, Marcha, Assistant Professor, MSN, Indiana Wesleyan University, 2004
Hall, Gregory T, Instructor, BS, Northern Kentucky University, 1994
Haysbert, Ronald, Assistant Professor, BTM, DeVry University, 2009
Hou, Yohanes, Professor, PhD, Southern Illinois University, 2004
Hughes, Keith, Assistant Professor, PhD, LSU Health Sciences Center, 1994
Jing, Weizhong, Associate Professor, MS, New Jersey Institute of Technology, 1998
Jones, Kenneth, Assistant Professor, 12 Years Teaching Experience, 12 Years Occupational Experience, ASE Master Certification
Karlage, Martha, Instructor, BS, Eastern Kentucky University, 1986
Law, Chelsea, Assistant Professor, MS, Clemson University, 2012
Laws, Sarah, Instructor, AAS, Gateway Community and Technical College, 2008
Lutes, Paul Alan, Instructor, BS, Northern Kentucky University, 1995
Lybrook, Adam C, Instructor, Diploma, Hibbing Community College, 2000
Mason, Meredith, Instructor, MSW, University of Michigan, 2011, MS, University of Cincinnati, 2015
Mathew, George, Professor, PhD, University of Kentucky, 1994
McKenna, Kerri, Associate Professor, EdD, Northern Kentucky University, 2011
Mitchell, John W, Instructor, 13 Years Occupational Experience, Class A Commercial Driver’s License
Mueller, Antoinette, Assistant Professor, Diploma, Gateway Community and Technical College, 2015
Myka, Jennifer, Assistant Professor, PhD, University of Kentucky, 2003
Neeley, Ron, Assistant Professor, BS, Northern Kentucky University, 2010
Necely, Rocky, Associate Professor, MA, University of Cincinnati, 2008
Nelson, Lance, Associate Professor, BA, Marshall University, 1987
Ostendorf, Audrey, Instructor, MA, Northern Kentucky University, 2014
Owsley, Adarrell, Instructor, MEd, Indiana Wesleyan University, 2012
Poppel, Elizabeth, Assistant Professor, BA, College of Mount St. Joseph, 1993
Praiwatner, Angela, Assistant Professor, MBA, Xavier University, 2009
Ramanayake, Deepanishanthara, Associate Professor, MS, Morehead State University, 2008
Reynolds, Jon, Instructor, BA, Centre College, 1995
Rice, Barb, Assistant Professor, MBA, West Virginia University, 1997
Rickels, Christopher, Instructor, The University of Toledo, 2012
Rickert, Patrick E, Associate Professor, MS, University of Wisconsin, 2000
Riley, Michael P, Instructor, MBA, Morehead State University, 2005
Riley, Michael K, Instructor, AAS, Morehead State University, 1983
Rosenberg, Lisa, Instructor, BA, York College of Pennsylvania, 1988
Ruebusch Brown, Michelle E, MSN, University of Cincinnati, 2016
Russell, Margaret, Instructor, MEd, Xavier University, 1990
Santos, Susan, Associate Professor, PhD, Walden University, 2004
Schafer, David, Assistant Professor, MA, Northern Kentucky University, 2013
Schilling, Judith C, Assistant Professor, MEd, Northern Kentucky University, 1987
Schultz, Kimberly, Instructor, Certificate, Gateway Community and Technical College, 2011
Selser, Thomas J, Instructor, Diploma, Pinellas Vocational Technical Institute, 1980
Sesterhenn, Thomas M, Instructor, MS, University of Cincinnati, 2007
Settlemire, Beth, Associate Professor, ME, University of Cincinnati, 2008
Siekmann-Hall, Stacey L, Assistant Professor, MS, University of Cincinnati, 2008
Smith, Jeffery, Instructor, Certificate, Sinclair Community College, 2003
Smith, Sarah, Assistant Professor, MA, College of Mount St. Joseph, 2008
Stallkamp, Melani, Associate Professor, MSN, University of Cincinnati, 2009
Stroud, Reva, Instructor, BS, Northern Kentucky University, 2010
Valette, Natasha, Assistant Professor, MA, Bowling Green State University, 2012
Walter, Eileen, Instructor, MA, University of Cincinnati, 1998
Warburton, Charles, Associate Professor, MA, University of Cincinnati, 2006
Wright, Dee, Associate Professor, 16 Years Teaching Experience, 26 Years 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 Appalachian traditions with diverse global innovations.

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

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

Academic Programs

Transfer Curricula
- Associate in Arts
- Associate in Science

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

- Visual Art (A)

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

- Agricultural Technology (C)
- Air Conditioning Technology (C, D)
- Auto Body/Collision Repair Technology (C, D)
- Automotive Technology (C, D, A)
- Broadband Technology (C)
- Business Communications (C)
- Business Studies:
  - Business Administration Systems (C, D, A)
  - Medical Information Technology (C, D, A)
- Computer Aided Drafting and Design (C, D)
- Computer and Information Technologies (C, A)
- Construction Technology (C, D)
- Cosmetology (C, D)
- Criminal Justice (C, A)
- Diagnostic Medical Sonography (A)
- Diesel Technology (C, D)
- Emergency Medical Services – Paramedic (C, A)
- General Occupational/Technical Studies (A)
- Health Care Specialist (C)
- Health Information Technology (C, A)
- Heavy Equipment Operation (C, D)
- Human Services (C, A)
- Interdisciplinary Early Childhood Education (C, D, A)
- Manufacturing Industrial Technology:
  - Electrical Technology (C, D)
- Medicaid Nurse Aide (C)
- Medical Assisting (A)
- Medical Laboratory Technology (C)
- Nursing (A)
- Physical Therapist Assistant (A)
- Practical Nursing (D)
- Professional Studio Artist (C, D, A)
- Radiography (C, A)
- Surgical Technology (A)
- Surveying & Mapping Technology (C)
- Telehealth Technician Associate (C)
- 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 Vo Tech Dr.
Hazard, KY 41701

Lees College Campus
601 Jefferson Ave.
Jackson, KY 41339

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

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

General Information

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

Administration

President/CEO Dr. Jennifer Lindon
Assistant to the President Delcie Combs
Interim Provost/Vice President of Academic and Student Services Germaine Shaffer
Chief Business Services Officer Connie Watts
Chief Information Officer Donna Roark
Senior Director of Human Resources Vickie Combs
Public Relations Coordinator Evelyn Wood
Dean of Business Services Jackie Hall
Dean of Computer and Online Technologies Dr. Ella Strong
Dean of Allied Health Science/Technologies Vacant
Dean of General Education Leila Sandlin Smith
Dean of Occupational Technologies Tony Back
Dean of Retention Services Dr. Beth Pennington

Faculty

Adams, Douglas D, Professor, AAS, Hazard Technical College, 2002
Back, Tony, Professor, MS, Eastern Kentucky University, 2012
Barnes Jr, Donald R, Professor, MS, Oklahoma State University, 1992
Bates, Lauren Ann, Associate Professor, DNP, Western Kentucky University, 2017
Begley, Dan H, Professor, MBA, University of Kentucky, 1998
Booth, Jenna L, Associate Professor, DNP, Western Kentucky University, 2015
Bowling, Randy L, Assistant Professor, 46 year Teaching Experience, 28 years Occupational Experience
Bowling, Tracy L, Professor, DPT, University of Kentucky, 2010
Branson, Cathy A, Librarian II, MLS, University of Kentucky, 2005
Brunt, Helen E, Professor, MSW, University of Kentucky, 2000
Bryant, Jeremiah, Professor, MA, Morehead State University, 2000
Bryant, Randall K, Professor, MA, West Georgia College, 1988
Caldwell, Venita Carol, Professor, MA, Union College, 1980
Caudill, Jimmy D, Professor, Diploma, Hazard Technical College, 1987
Clemens, Mavis, MS, Eastern Kentucky University, 2010
Collins, Gwendolyn, Professor, MSN, University of Kentucky, 1982
Combs, Donna R, Professor, MSN, University of Kentucky, 1985
Combs, Jerry M, Professor, MA, Morehead State University, 2011
Cornett, Willie, Assistant Professor, AAS, Hazard Community and Technical College, 2009
Couch, Melissa, BS, Morehead State University, 2012
Cravens, Thomas L, Assistant Professor, MS, University of Kentucky, 1989
Currie, Paul B, Associate Professor, DVM, University of Georgia, 2000
Davidson, Gwendolyn, Assistant Professor, MSN, Morehead State University, 2014
Davis, Tammy A, Instructor, AAS, Somerset Community College, 2013
Dunn, Timothy J, Professor, MA, University of Kentucky, 1989
Flannery, Madeline K, Professor, MA, Columbia University, 1986
Flynn, Michael, Assistant Professor MFA, University of Montana, 2012
Francis, Sam W, Associate Professor, PhD, University of Kentucky, 1998
Frazier, David L, Professor, MBA, Morehead State University, 1998
Frazier, Misty, Instructor, MSW, University of Kentucky, 2011
Fugate, Renee Tabor, Professor, MS, University of Kentucky, 1993
Gibson, Diane A., Assistant Professor, MS, Louisiana Tech University, 2009
Globig, Sabine A, Professor, MS, Rutgers University, 1988
Hagans Shepherd, Ludrenia Sue, Professor, MSN, Eastern Kentucky University, 2000
Herald, Patricia Ann, Professor, DSN, University of Alabama, 1993
Holl, Richard E, Professor, Ph.D, University of Kentucky, 1996
Holliday, Charmain, Instructor, AAS, Hazard Community and Technical College, 2014
Howard, Arzella W, Associate Professor, MSN, University of Phoenix, 2008
Howard, Cluster C, Professor, MA, Morehead State University, 1983
Hudson, Evelyn, Instructor, MS, University of Kentucky, 2015
Ingram, Danny M, Professor, BS, Eastern Kentucky University, 2008
Johnson, Larisa, Instructor, MSN, Chamberlain College of Nursing, 2016
Johnson, R Susan, Professor, BS, Eastern Kentucky University, 2007
Kidd Jr, Ralph E, Professor, MS, Eastern Kentucky University, 1991
Lewis, Everett C., Assistant Professor, 26 years Occupational Experience
Lindon, Jennifer A, Professor, PhD, Mississippi State University, 2010
Lucero, Scott C, Professor, MA, University of Kentucky, 1992
Lutes, Jennifer, Instructor, MA, Morehead State University, 2010
Maggard, Wilma, Assistant Professor, Certificate, Hazard Community and Technical College, 2003
Malepeai, Alexis, Assistant Professor, BA, Brown University, 2003
Martin, Christina R, Associate Professor, MSN, Eastern Kentucky University, 2009
Martin, Joanna H, Associate Professor, Diploma, Cumberland Valley Technical College, 1999
May, Scott R, Professor, MS, Indiana State University, 1990
Medoll, Rex, Lecturer, MS, Arkansas State University, 2007
Mobeli, Deronda C, Professor, Ed. D., University of Kentucky, 2012
Moon, Randall B, Professor, PhD, University of California at Riverside, 2000
Mullins, Denessa, Assistant Professor, BA, Ashford University, 2010
Napier, Anna S, Professor, MSW, University of Denver, 1991
Napier, Samuel Scott, Assistant Professor, 19 years Teaching Experience, 19 years Occupational Experience
Neece, Shaun, Instructor, AAS, Hazard Community and Technical College, 2003
Neece, Thomas D, Professor, MA, Eastern Kentucky University, 1996
Osborne, Norman Dean, Instructor, 33 years Teaching Experience, 29 years Occupational Experience
Pennington, Beth Ann, Associate Professor, Ed. D., Morehead State University, 2013
Petrey-Blandau, Sandra E, Professor, MA, Eastern Kentucky University, 1982
Reed, Ronald S, Professor, MA, University of Dayton, 1985
Richie, Tammy Lene, Professor, MBA, Morehead State University, 1985
Sasser, Lynn D, Professor, MS, Eastern Kentucky University, 1972
Shaffer, Germaine B, Professor, JD, University of Louisville, 1990
Sexton, Rachel Juanita, Associate Professor, Diploma, East Kentucky Beauty College, 1998
Sipple, Savannah, Assistant Professor, MFA, Spalding University, 2008
Smith, Leila Sandlin, Professor, MBE, Morehead State University, 1987
Smith, Penny, MA, University of Kentucky, 1992
Smith, Walter, Assistant Professor, MS, University of Cincinnati, 2007
Spencer-Barnes, Amanda G, Associate Professor, MA, Morehead State University, 2007
Stamper, Vera Dawn, Associate Professor, DPT, University of Kentucky, 2011
Strickland, William M, Professor, MA, Morehead State University, 1981
Strong, Ella J, Professor, Ed. D., University of Kentucky, 2011
Swafford, Bryan, Assistant Professor, BA, Alice Lloyd College, 2000
Terry, Homer, Professor, MS, Eastern Kentucky University, 2004
Turner, Chestina, Associate Professor, MA, Eastern Kentucky University, 2008
Turner, Tina, Instructor, BSN, Indiana Wesleyan, 2016
Vance, Delores S, Professor, MBE, Morehead State University, 1995
Vergne, Stephanie L, Professor, MA, Morehead State University, 2001
Watts, Natasha, Assistant Professor, MS, Eastern Kentucky University, 2012
Wernerette, Amy S, Professor, MS, University of Michigan, 1996
Whitaker, Timothy, Professor, BS, Midwestern State University, 2005
Williams, Jenny D, Professor, MA, University of Kentucky, 1992
Wireman, April Graham, Instructor, MA, Eastern Kentucky University, 2005
Wood, Jeremy R, Professor, MS, University of Tennessee, 1993

2019
Henderson Community College

Mission Statement/Status of Accreditation

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

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

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

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

Academic Programs

Transfer Curricula

- Associate in Arts
- Associate in Science

Occupational/Technical Curricula

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

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

General Information

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

Transfer Information

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 Advancement Officer Ms. Jennifer Preston
Dean of Success Grants Ms. Pan Wilson
Director of Cultural Diversity Mr. William L. Dixon
Director of Institutional Effectiveness Mr. Brian McMurtry
Director of Human Resources Ms. Doris Lake
Chair, Allied Health Division Dr. Carole Mattingly
Chair, Liberal Arts and Professional Studies Division Ms. Sharon Burton
Chair, STEM Division Mr. Eugene Patsalides
Director of Nursing TBA
Assoc. Dean/Enrollment Management Mr. Cary Conley
Assistant Dean for Library Services Mr. Mike Knecht

Faculty

Becker, Kara, Associate Professor, ME, Western Kentucky University, 2003
Bennett, Brenda, Associate Professor, MS, Western Kentucky University, 1995
Blackburn, Catherine, Professor, MFA, East Carolina University, 1993
Buchanan, Marlena, Associate Professor, MSN, University of Southern Indiana, 2000
Bullock, Kimberly, Instructor, MSN, University of Southern Indiana, 2015
Burnett, Terri, Instructor, MSN, University of Southern Indiana, 2013
Burton, Sharon, Professor, MA, Ohio University, 1983
Chappell, Michelle, Assistant Professor, MS, Morehead State University, 2011
Crick, Sarah, Instructor, MNE, University of Southern Indiana, 2015
Dean, Kim, Professor, MS, Western Kentucky University, 1986
Fritts, David, Professor, PhD, Ohio University, 2012
Fuchs, Pennae, Professor, MSN, University of Texas at Austin, 1974
Furbush, Frank, Associate Professor, MS, Southern Connecticut College, 1982
Gary, William, Professor, MA, Florida State University, 1991
Griffis, Katie, Associate Professor, MA, Eastern Illinois University, 2007
Hawa, Randa, Professor, MS, University of Evansville, 1991
Hunt, Cathy, Professor, MS, University of Kentucky, 1980
Jones, Mei, Assistant Professor, MS, University of Southern Indiana, 2006
Joy, Brian, Associate Professor, MBA, National University, 2000
Joy, Lilia, Associate Professor, MA, Murray State University, 2003, MFA, Murray State University, 2015
Kasenow, Paul, Professor, MA, Kent State University, 1987
Kelley, Melissa, Instructor, MSN, University of Phoenix, 2015
Kipling, Sheri, Assistant Professor, MPH, Des Moines University, 2014
Knecht, Michael, Professor, MLS, Emporia State University, 1992, MBA, Western Kentucky University, 1999

Contact Information

Henderson Community College
2660 South Green Street
Henderson KY 42420
(270) 827-1867
Toll free: 800-696-9958
Henderson.kctcs.edu
Maliby, Lorie, Professor, MA, Ohio University, 1983
Marquess, Alicia, Instructor, MSN, Kaplan University, 2014
Mattingly, Carole, Associate Professor, DNP, Western Kentucky University, 2015
McCarty, Steven, Professor, MA, Western Kentucky University, 1991
Mercer, Tony, Instructor, AAS, Hopkinsville Community College, 2007
Murray, Bridget, Professor, MEd, Indiana State University, 1998
Patsalides, Eugenios, Professor, MA, Western Kentucky University, 1997
Phelps, Barry, Assistant Professor, MA, Western Kentucky University, 2015
Reid, Kevin, Professor, MLS, University of Kentucky, 1993, MA, Purdue University, 1986

Amy Simpson, Instructor, MS, Black Hills State University, 2008
Strawn, Anthony, Professor, MA, University of Evansville, 1979
Taylor, Scott, Assistant Professor, MS, Murray State University, 2010
Threlkeld, Lori, Associate Professor, MS, Murray State University, 1992
Tutt, Larry, Associate Professor, MA, Murray State University, 1981
Wells, Rebecca, Professor, MS, Eastern Kentucky University, 1985
Winstead, Laura, Professor, MS, Murray State University, 1996
Mission Statement/Status of Accreditation

Hopkinsville Community College is an inclusive, student-centered educational institution that provides accessible, innovative, and comprehensive learning opportunities within a supportive community that encourages academic excellence. The college sustains strong educational, community, military, agricultural, and economic partnerships to improve the quality of life in the southern Pennyrile region and Fort Campbell and enables students to be responsible citizens in a global society.

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

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

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

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

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

Academic Programs

Transfer Curricula
- Associate in Arts
- Associate in Science

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

Advanced Nursing Assistant (C)
Air Conditioning Technology (C)
Agricultural Studies (A)
Agricultural Technology (C, D, A)
Automotive Technology (C)

Business Studies:
- Administrative Office Technology (C, A)
- Business Administration Systems (C, D, A)
- Medical Information Technology (C, D, A)
- Supply Chain Management (C)

Computer Aided Drafting and Design (C, D)
Computer and Information Technologies (C, A)
Computerized Manufacturing and Machining (C, A)
Construction Technology (C)
Criminal Justice (C, A)
Diesel Technology (C, D, A)
Emergency Medical Services – Paramedic (A)
Emergency Medical Technician (C)
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, A)
  - Industrial Maintenance Technology (C, D, A)
Medical Assisting (A)
Medical Laboratory Technician (C)
Nursing (A)
Pharmacy Technology (C, D)
Physical Therapist Assistant (A)
Practical Nursing (C, D)
Radiography (A)
Respiratory Care (A)
Surgical Technology (A)
Welding Technology (C)

Contact Information

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

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

General Information
(270) 707-3700

Admissions
- Larissa Horn
  (270) 707-3812
  1-855-22GO-HCC (1-855-224-6422)

Adult Education
- Gary Dawson
  (270) 707-3926

Advising Center
- Deloria Scott
  (270) 707-3820

Testing Center
- Martha Metcalfe
  (270) 707-3826

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

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

Workforce Solutions
- Carol Kirves
  (270) 707-3750

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

Jefferson Community & Technical College
109 E. Broadway
Louisville, KY 40202
(502) 213-5333
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 40008
(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) 633-5224

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

General Information
(502) 213-5333

Admissions
(502) 213-4000

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

Business Office
(502) 213-2103

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

Disability Services
(502) 213-2449

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. Ty Handy

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

Dean of General Studies – Downtown Campus
Dr. Randall Davis

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

Dean of Technical Education
Dr. Telly Sellars

Dean of Student Affairs and Enrollment Management
Dr. Laura Smith

Dean of System Initiatives
Vincent DiNoto Jr.

Director of Carrollton Campus
Susan Carlisle

Academic Coordinator – Shelby Campus
Maia Langley

Academic Coordinator – Bullitt Campus
Kim Bogg

Academic Coordinator – Southwest Campus
Jessica Duff

Director of Human Resources
Toni E. Whalen

Director of Diversity
Danielle Simms

Dean of Workforce Solutions
Dr. Nikki Cobb

Director of Institutional Effectiveness
Dr. Jo Zausch

Division of Arts and Humanities
Marlisa Austin

Division of Business and Advanced Technology
Dr. Bruce Jost

Division of Social and Behavioral Sciences —
Catherine Wright

Division of Allied Health
Kara Schlotter

Division of Nursing
Sonia Rudolph

Division of Mathematics
Drew Wilkerson

Division of Natural Science
Kaya Muller

Division Trade and Industry
Grant Gamble

Director of Library Services
Sheree Williams

Facult y

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

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

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

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

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

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

Barley, Brandon, Professor, MS, Virginia Tech, 2003

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

Bloyd, Deborah, Associate Professor, MSN, University of Louisville, 1984

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

Boyd, Lisbeth, Assistant Professor, MS, Murray State University, 2008

Buckler, Michael, Associate Professor, MA, University of Louisville, 1996

Burks, Isbn, Assistant Professor, MA, City University of New York, 1979

Butler, Casandra M., Instructor, AAS, Jefferson Community and Technical College, 2013

Cahoun-French, Diane, Professor, PhD, University of Louisville, 1982

Cartwright, Andrea, Assistant Professor, MA, University of Louisville, 2006

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

Cheatham, Cathy A, Instructor, MEd, Western Kentucky University, 1979

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

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

Couch, Kristi, Instructor, BS, Indiana University, 2000

Cummings, Deloris J, Associate Professor, DPT, University of Montanta, 2012

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

Davis, Helen M, Professor, MBA, University of Kentucky, 1976

Davis, Randall J, Professor, PhD, University of Wisconsin Milwaukee, 1989

Dearling, Laura A, Professor, MFA, University of Memphis, 1998

Deelely, Nina R, Professor, MSLS, University of Kentucky, 1994

Dearing, Laura A, Professor, MFA, University of Memphis, 1998
Luther Luckett*
Lawrey, Charles D, Associate Professor, AS, Jefferson Community and Technical College, 2006

Pewee Valley (KCIW)*

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

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

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

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

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

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

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

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

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

Academic Programs

Transfer Curricula
Associate in Arts
Associate in Science

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

Advanced Integrated Technology (C, A)
Agricultural Technology (C, D, A)
Air Conditioning Technology (C, D, A)
Business Studies:

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

Contact Information

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

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

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

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

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

(270) 821-2250

Admissions
(270) 824-8643

Business Office
1-855-55GO-MCC (1-855-554-6622)

Workforce Solutions
(270) 824-8659

Continuing Education
(270) 824-8660

Disability Services
(270) 824-1708

Financial Aid
1-855-55GO-MCC (1-855-554-6622)

Human Resources
(270) 824-8649

Library
(270) 824-1722

Public Relations
(270) 824-8581

Records and Registrar
(270) 824-8575

Veterans Affairs
(270) 824-8578

Website
madisonville.kctcs.edu

Administration

President
Dr. Cynthia S. Kelley

Chief Academic Affairs Officer
Dr. Jonathan V. Parrent

Chief Student Affairs Officer
E. Ray Gillspie

Chief Business Affairs Officer
Michael A. Davenport

Workforce Solutions
David A. Schuermer

Grants, Planning, and Effectiveness
J. Christopher Woodall

Institutional Advancement

Public Relations Coordinator

Division of Applied Technologies
Matthew S. Luckett

Division of Arts & Humanities
Dr. Mary B. Werner

Division of Allied Health
Stephanie A. Taylor

Division of Nursing
E. Shannon Allen

Division of Mathematics and Sciences

Division of Social and Behavioral Sciences
Dr. John Lowbridge

Natalie F. Cooper

Faculty

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

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

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

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

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

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

Batts, Kevin C, Assistant Professor, MBA, Murray State University, 2011

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

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

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

Childress, Carla S., Instructor, BHS, University of Kentucky, 1997

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Hernandez-Stevenson, Brittany, Instructor, MS, Murray State University, 2013

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

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

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

Johnson, Bartley J, Assistant Professor, MS, Southern Illinois University, 2015

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

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

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

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

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

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

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

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

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

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

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

Luckett, Matthew S, Associate Professor, BS, Western Kentucky University, 2014

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

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

Martin, Timothy S, Assistant Professor, MA, Liberty University, 2011

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

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

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

Modestou, Modestos, Instructor, MS, Murray State University, 2016

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

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

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

Pullin, Sherri D, Instructor, BSN, University of Southern Indiana, 2015

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Woodall, Marsha Diane, Professor, DNP, Eastern Kentucky University, 2016

Wright, Debbie I., Professor, MA, Southern Illinois University, 1988
Mission Statement/Status of Accreditation

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

Goals of the College:

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

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

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

Academic Programs

Transfer Curricula

- Associate in Arts
- Associate in Science

Occupational/Technical Curricula

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

- Advanced Nursing Assistant (C)
- Air Conditioning Technology (C, D)
- Applied Process Technologies (C)
- Automotive Technology (C, D)

Business Studies:

- Administrative Office Technology (C, D, A)
- Business Administration Systems (C, D, A)
- Medical Information Technology (C, D, A)

Computer Aided Drafting and Design (C, D)
Computer and Information Technologies (C, A)
Computerized Manufacturing and Machining (C, D, A)
Construction Technology (C, D)
Cosmetology (C)
Criminal Justice (C, A)
Culinary Arts (C, A)
Diesel Technology (C, D)
Emergency Medical Services – Paramedic (C)
Emergency Medical Technician (C)
Fire/Rescue Science Technology (C, D, A)
General Occupational/Technical Studies (A)

Horticulture (C, D)
Interdisciplinary Early Childhood Education (C, D, A)
Logistics and Operations Management (C)
Manufacturing Industrial Technology:
  - Electrical Technology (C, D)
  - Industrial Maintenance Technology (C, D, A)
Medical Assisting (C, D)
Medical Laboratory Technology (C, A)
Nursing (A)
Plastics Processing (C)
Plumbing Technology (C, D)
Practical Nursing (C, D)
Real Estate (C)
Respiratory Care (A)
Social Media Marketing (C)
Truck Driver Training (C)
Welding Technology (C, D)
Workplace Safety Specialist (C)

Contact Information

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

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

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

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

Additional Sites

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

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

Rowan Campus

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

Licking Valley Campus

General Information (859) 234-8626
Admissions Ext. 66362
Business Office 1-855-GO-9MCTC (1-855-469-6282)
Financial Aid 1-855-GO-9MCTC (1-855-469-6282)
Library Ext. 66417
Records Ext. 66405
Workforce Solutions Ext. 66418
Website maysville.kctcs.edu

Administration

President/CEO Stephen M. Vacik, Ed.D.
Rowan Campus Director Russ Ward
Provost Thomas Ware, Ed.D
Chief Finance Officer Barbara Campbell
Chief Operations Officer Russ Ward
Chief Officer of Enrollment & Student Services Jessica Kern
Licking Valley Campus Branch Campus Director Lori Guance
Licking Valley Campus Academic Coordinator David Lawler
Montgomery Campus Education Center Director Rebecca Morton
Director, Institutional Advancement Cara Clarke
Director, Marketing and Public Relations Vacant
Division of Industrial Technologies Tony Wallace
Division of Liberal Arts and Education Kathleen Mellenkamp
Division of Math, and Natural Science Angela Fultz, Ph.D.
Division of Health Sciences Technology Debbie Nolder
Division of Business and Related Technologies Natasha Maddox
Coordinator, Distance Learning Kimberly Sparks
Coordinator, Dual Credit Emily Thurman
Associate Dean, Institutional Planning, Research, and Effectiveness Pain Stafford
Associate Dean, Academic Support Services; Transfer Coordinator Dana Calland, Ed.D.
Director, Adult Education/College Preparation Sherry Stacy
Director, Cultural Diversity Millicent Harding
Director, Financial Aid Sandy Power
Director, Human Resources Sandi Estill
Director, Information Technology Vacant
Director, Library Services Sonja Eads
Director, Workforce Solutions Vacant
Registrar Lori Gaunce

Faculty

Adler, Jennifer, Instructor, MS, Eastern Kentucky University, 2010
Alburg, Tammy, Instructor, MA, Morehead State University, 1994
Barnett, Kenneth, Associate Professor, BS, Morehead State University, 2004
Bishop, Melissa, Instructor, MA, Morehead State University, 2016
Bone, Martha D, Professor, DA, Middle Tennessee State University, 1985
Boone, Debora A, Associate Professor, BSN, University of Phoenix, 2009
Boyd, Tony, Associate Professor, MA, Morehead State University, 1989
Bourne, Tammy B, Assistant Professor, AAS, Maysville Community College, 1988
Butler, Deanna J, Associate Professor, AAS, Morehead State University, 1981
Calland, Dana J Taylor, Professor, Ed.D, Grambling State University, 2007
Callihan, Jeffrey C, Associate Professor, BS, Morehead State University, 2002
Carrell, Melissa L, Professor, MA, Morehead State University, 1998
Clarke, Ginger, Assistant Professor, BSN, Auburn University, 1990
Curtis, Tina, Assistant Professor, MA, Northern Kentucky University, 2009
Dickson, Jeanette C, Professor, MFA, Ohio University, 1985
Drucen, Joshua W, Associate Professor, MA, Morehead State University, 2006
Eads, Sonja R, Professor / Librarian I, MLS, University of Kentucky, 1985
Flora, Charlene, Associate Professor, BA, University of Tennessee, 2010
Frodge, Shannon C, Professor, BSN, Morehead State University, 2007
Fultz, Angela, Professor, PhD, University of Kentucky, 1996
Garrison, Janet L, Professor, MBA, University of Kentucky, 1992
Goodpaster, Sagan, Assistant Professor, MS, Eastern Kentucky University, 2013
Graves, Robert L, Professor, MS, Morehead State University, 1992
Haley-Rosser, Vicky, Assistant Professor, BSN, University of Kentucky, 1992
Ham, Robert G, Professor, BS, Morehead State University, 1985
Hattan, David, Instructor, AAS, Maysville Community and Technical College, 2015
Hauke, Barbara, Professor, MS, University of Cincinnati, 1989
Hawkins, Adam, Assistant Professor, BS, Morehead State University, 2010
Hawkins, Jack, Assistant Professor, AAS, Maysville Community and Technical College, 2000
Hunter, Nancy D, Professor, Ed.D, University of Kentucky, 1999
Hyrcza, Alexander L, Professor, MA, Western Kentucky University, 1990
Jones, Gordon, Instructor, AAS, Maysville Community and Technical College, 1989
King, John E, Professor, AA, Morehead State University, 2007
Klee, John R, Professor, MHE, Morehead State University, 1977
Lawler, David J, Professor, MS, Morehead State University, 1995
Lucier, Rebecca S, Professor, MSN, University of Kentucky, 1995
Maddox, Natasha, Assistant Professor, MBA, Morehead State University, 2013
May, Elena, Associate Professor, MA, Novosibirsk State University, 1990
McCleanhan, Christina, Instructor, MFA, Mills College, 2008
McDavid, Thea, Instructor, BSN, Walden University, 2013
McDowell, Susan E, Professor, MSN, Northern Kentucky University, 2003
McKinney, Dallas, Instructor, BA, Morehead State University, 2010
Mellenkamp, Kathleen M, Professor, MA, Morehead State University, 1977
Miller, John S., Associate Professor, MS, University of Kentucky, 1998
Moore, Brenda, Assistant Professor, MA, State University of New York at Bing hamton, 1988
Morris, Debra R, Professor, BBA, Morehead State University, 1988
Morris, Melanie J, Associate Professor, BS, University of Kentucky, 1991
Muenks, Martha J, Professor, MA, University of Kentucky, 1993
Napier, Jerry, Associate Professor, PhD, University of Kentucky, 1997
Noble, Wendy, Professor, MA, Morehead State University, 2009
Nolder, Deborah B, Professor, MSN, Northern Kentucky University, 2005
Oueldikir, Jennifer, Instructor, AAS, Maysville Community and Technical College, 2011
Parker, Sally, Professor, BSN, College of Mt Saint Joseph on the Ohio, 1979
Pasley, Terry L, Professor, MA, Northern Kentucky University, 1998
Pecco, Nicholas, Associate Professor, BS Morehead State University, 2005
Perkins, Brandin, Professor, MS, Morehead State University, 2005
Prater, Mary Alice, Instructor, BHS, University of Kentucky, 1984
Redden, Carla S, Assistant Professor/ Librarian II, MLS, University of Kentucky, 2009
Reeder, Diana L, Associate Professor, AAS, Morehead State University, 1979
Richardson, James, Instructor, MS, Oklahoma State University, 2015
Sears, Christopher M, Associate Professor, PhD, University of Wisconsin-Milwaukee, 2007
Sharp, Mary J, Professor, MS, Morehead State University, 1994
Sims, Rhonda Y, Professor, PhD, Walden University, 2014
Slone-Crumblin, Donna, Associate Professor, MA, University of Kentucky, 2008
Staviski, Sharon, Instructor, BS, Northern Kentucky University, 1990
Swartz, Dennis Ray, Associate Professor, BS, Morehead State University, 2007
Taylor, Carrie L, Associate Professor, MA, Northern Kentucky University, 2009
Thornberry, Tara C, Professor, MBA, Morehead State University, 1984
Thoroughman, Michelle, Instructor, BS, University of Kentucky, 2002
Vice, Marlene K, Professor, AA, Morehead State University, 2001
Walker, Melinda F, Associate Professor, MA, Morehead State University, 2004
Wallace, Tony L, Professor, BS, Morehead State University, 2007
Ward, Russell C, Professor, MA, Morehead State University, 1989
Watson, Megan, Assistant Professor, Certified Cosmetology Instructor Salon Professional Academy, 2010
Weiss, Justin A, Associate Professor, MS, Marshall University, 2009
Whitten, Brianna C, Associate Professor, MA, Georgetown College, 2004
Williams, James T, Instructor, DVM, University of Tennessee, 1993
Wilson, Luanne, Instructor, BSN, Eastern Kentucky University, 1990
Wilson, Sharon G, Professor, MS, Auburn University, 1985
Wylie, Jeff B, Professor, MA, Morehead State University, 1977
Zemba, Patrick, Instructor, AAS, Columbus State Community College, 1991

Correctional Campuses

East Kentucky Correctional Complex *
Cloud, Chalmer L, Professor, MS, Morehead State University, 1993
Litteral, Holli H, Professor, MA, Morehead State University, 1999

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

To improve our community’s economic development and competitive advantage by providing high-quality, world-class learning experiences through career degree programs, workforce development, and transfer to baccalaureate degree programs.

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

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

Academic Programs

Transfer Curricula
Associate in Arts
Associate in Science

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

   Theatre (A)
   Visual Art (A)

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

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

Contact Information

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

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

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

General Information

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

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>President</td>
<td>Michael Rodgers</td>
</tr>
<tr>
<td>Interim Vice President of Academic Affairs</td>
<td>Sarah Price</td>
</tr>
<tr>
<td>Vice President of Business Affairs</td>
<td>James Hartz</td>
</tr>
<tr>
<td>Vice President of Information Technology</td>
<td>Mike Rodgers</td>
</tr>
<tr>
<td>Interim Vice President of Institutional Advancement</td>
<td>Kevin Beardmore</td>
</tr>
<tr>
<td>Vice President of Student Affairs</td>
<td>Cynthia Fiorella</td>
</tr>
<tr>
<td>Interim Dean of Academic Affairs – Technical Programs</td>
<td>Stacy Edds-Ellis, PhD</td>
</tr>
<tr>
<td>Associate Dean of Business Affairs</td>
<td>Marc Maltby, PhD</td>
</tr>
<tr>
<td>Associate Dean of Nursing</td>
<td>Rhonda Logsdon, PhD</td>
</tr>
<tr>
<td>Associate Dean of Advanced Manufacturing Technologies</td>
<td>Terri Lanham, RN, MSN</td>
</tr>
<tr>
<td>Associate Dean of Humanities and Fine Arts</td>
<td>Aubrey D. Autry, PhD</td>
</tr>
<tr>
<td>Associate Dean of Personal Services and Skill Trades</td>
<td>Julia Ledford, PhD</td>
</tr>
<tr>
<td>Associate Dean of Mathematics, Science, and Allied Health</td>
<td>Aubrey D. Autry, PhD</td>
</tr>
<tr>
<td>Associate Dean of Student Affairs, Cultural Diversity</td>
<td>Veena Sallan, PhD</td>
</tr>
<tr>
<td>Director of Marketing &amp; Communications</td>
<td>Lewatis McNeal, PhD</td>
</tr>
<tr>
<td>Director of Public Safety</td>
<td>Bernadette Toye Hale</td>
</tr>
<tr>
<td></td>
<td>Jeff Hendricks</td>
</tr>
</tbody>
</table>

Faculty

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
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<tbody>
<tr>
<td>Abell, Donna</td>
<td>Professor/Librarian MS, Florida State University, 2004</td>
</tr>
<tr>
<td>Alscbach, Matthew</td>
<td>Assistant Professor, MA, San Diego State University, 2008</td>
</tr>
<tr>
<td>Ash, Angela</td>
<td>Associate Professor, MA, University of Louisville, 2005</td>
</tr>
<tr>
<td>Bailes, Steven R</td>
<td>Professor, BS, Eastern Kentucky University, 1977</td>
</tr>
<tr>
<td>Basham-Edge, Zara</td>
<td>Associate Professor, AAS, Owensboro Community and Technical College, 2013</td>
</tr>
<tr>
<td>Boarman, Keith</td>
<td>Associate Professor, Murray State University, 1999</td>
</tr>
<tr>
<td>Bouker, Carrie</td>
<td>Assistant Professor, MA, Western Kentucky University, 1997</td>
</tr>
<tr>
<td>Bowlds, Barry K</td>
<td>Associate Professor, AAS, Western Kentucky University, 2003</td>
</tr>
<tr>
<td>Boyd, Michael</td>
<td>Professor, MBA, Southwest Missouri State University, 1987</td>
</tr>
<tr>
<td>Boyd, Vicki H</td>
<td>Professor, MA, Murray State University, 1981</td>
</tr>
<tr>
<td>Branhum, Matthew</td>
<td>Professor, MA, Morehead State University, 2000</td>
</tr>
<tr>
<td>Brown, Kathryn</td>
<td>Associate Professor, MA, Western Kentucky University, 1994</td>
</tr>
<tr>
<td>Canales, Michael</td>
<td>Associate Professor, BS, DeVry University, 1987</td>
</tr>
<tr>
<td>Caplan, Geralyn M</td>
<td>Professor, EdD, Western Kentucky University, 2015</td>
</tr>
<tr>
<td>Collins, Shannon Quinet</td>
<td>Professor, MA, Morehead State University, 2000</td>
</tr>
<tr>
<td>Crowe, Randy Keith</td>
<td>Professor, BS, Western Kentucky University, 1999</td>
</tr>
<tr>
<td>Curtis-Abuonk, Vickie L</td>
<td>Associate Professor, MS, Western Kentucky University, 1984</td>
</tr>
<tr>
<td>DePaquale, Donna</td>
<td>Assistant Professor, MS, Western Kentucky University, 2013</td>
</tr>
<tr>
<td>Dick, Timothy T</td>
<td>Professor, PhD, University of Kentucky, 2002</td>
</tr>
<tr>
<td>Ebelsiar, Bethany</td>
<td>Associate Professor, BSN, Murray State University, 2000</td>
</tr>
<tr>
<td>Edwards, Lois M</td>
<td>Associate Professor, EdD, Western Kentucky University, 2017</td>
</tr>
<tr>
<td>Ford, Constance R</td>
<td>Professor, DME, Indiana University, 1983</td>
</tr>
<tr>
<td>Gesser, Chad</td>
<td>Associate Professor, MA, Western Kentucky University, 1997</td>
</tr>
<tr>
<td>Gish, Misty</td>
<td>Associate Professor, MS, Murray State University, 2001</td>
</tr>
<tr>
<td>Glenn Ill, Robert J</td>
<td>Professor, MA, University of Nevada Las Vegas, 1985</td>
</tr>
<tr>
<td>Glenn, James H</td>
<td>Professor, EdD, University of Kentucky, 2001</td>
</tr>
<tr>
<td>Gore, Michael G</td>
<td>Professor, BS, Western Kentucky University, 2009</td>
</tr>
<tr>
<td>Hall, Teresa</td>
<td>Assistant Professor, MSN, University of Louisville, 2014</td>
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<tr>
<td>Hamilton, Cassandra</td>
<td>Associate Professor, MA, Western Kentucky University, 2003</td>
</tr>
<tr>
<td>Hammonds, Gary S</td>
<td>Associate Professor, AAT, Institute of Electronic Technology, 1986</td>
</tr>
<tr>
<td>Head Jr, Gerald M</td>
<td>Assistant Professor, MS, Western Kentucky University, 1995</td>
</tr>
<tr>
<td>Helm, Moniy J</td>
<td>Professor, MFA, Southern Illinois University - Carbondale, 1988</td>
</tr>
<tr>
<td>Higdon, Frances</td>
<td>Assistant Professor, AAS, Owensboro Community and Technical College, 2011</td>
</tr>
<tr>
<td>Hildenbrandt, Daniel R</td>
<td>Associate Professor, MA, Southern Illinois University - Carbondale, 1982</td>
</tr>
<tr>
<td>Hoffman, Kathy</td>
<td>Associate Professor, MS, Catholic University of America, 1986</td>
</tr>
<tr>
<td>Howard, Jacqueline</td>
<td>Assistant Professor, BS, Murray State University, 2009</td>
</tr>
<tr>
<td>James, Walter</td>
<td>Assistant Professor, Nashville Auto-Diesel College, 1993</td>
</tr>
<tr>
<td>Johnson, Connie F</td>
<td>Associate Professor, MBA, Morehead State University, 2006</td>
</tr>
<tr>
<td>Johnson, James L</td>
<td>Professor, MA, Western Kentucky University, 1987, M.A. University of Kentucky, 1998</td>
</tr>
<tr>
<td>Kobella, Peter</td>
<td>Associate Professor, MA, Matej Bel University, 1998</td>
</tr>
<tr>
<td>Leach, Eddie</td>
<td>Instructor, DVM, Auburn University, 1984</td>
</tr>
<tr>
<td>Lewis, Courtland</td>
<td>Assistant Professor, PhD, University of Tennessee, 2012</td>
</tr>
<tr>
<td>Lichtel, John</td>
<td>Associate Professor/Librarian IV, MLS, University of Southern Mississippi, 2004</td>
</tr>
<tr>
<td>Martin, David C</td>
<td>Professor, MS, Western Kentucky University, 2007</td>
</tr>
<tr>
<td>McCravy, Lauren</td>
<td>Assistant Professor, MPA, Western Kentucky University, 2012</td>
</tr>
<tr>
<td>McDonough, Greta J</td>
<td>Professor, MSW, Western Kentucky University, 1978</td>
</tr>
<tr>
<td>McGee, Jennifer S</td>
<td>Associate Professor, BSN, Western Kentucky University, 1996</td>
</tr>
<tr>
<td>Menser, Nadine Joyce</td>
<td>Associate Professor, EdD, Western Kentucky University, 2015</td>
</tr>
<tr>
<td>Monsour, Matthew</td>
<td>Instructor, MA, Saint Meinrad School of Theology, 2010</td>
</tr>
<tr>
<td>Morris, Edward J</td>
<td>Professor, PhD, Southern Illinois University, 1989</td>
</tr>
<tr>
<td>Morris, Kelly</td>
<td>Associate Professor, PhD, University of Kentucky, 2009</td>
</tr>
<tr>
<td>Mosley, Daniel Joe</td>
<td>Professor, BS, Western Kentucky University, 2008</td>
</tr>
<tr>
<td>Mowers, Kathleen A</td>
<td>Professor, MAT, Indiana University, 1975</td>
</tr>
<tr>
<td>Mundell, Donald W</td>
<td>Associate Professor, MS, Eastern Illinois University, 1976</td>
</tr>
<tr>
<td>Nall, Keith Lewis</td>
<td>Assistant Professor, AS, Nashville Automotive Diesel College, 1986</td>
</tr>
<tr>
<td>Northenor, Tonya</td>
<td>Associate Professor, MFA, University of Memphis, 1999</td>
</tr>
<tr>
<td>O’Hara, Anthony</td>
<td>Associate Professor, Ph.D, Southern Illinois University, 2001</td>
</tr>
<tr>
<td>Payne, Justin</td>
<td>Associate Professor, AAS, Owensboro Community and Technical College, 2005</td>
</tr>
<tr>
<td>Payne, Shawn</td>
<td>Associate Professor AAS, Owensboro Community and Technical College, 2007</td>
</tr>
<tr>
<td>Perkins, Micah W</td>
<td>Professor, PhD, University of Louisville, 2016</td>
</tr>
<tr>
<td>Purdy, Cheryl A</td>
<td>Associate Professor BS, Kentucky Wesleyan College, 1976</td>
</tr>
<tr>
<td>Purdy, Robert</td>
<td>Associate Professor, MPS, Western Kentucky University, 1983</td>
</tr>
<tr>
<td>Revlett, Kimberly</td>
<td>Instructor, ADN, Kentucky Wesleyan College, 2000</td>
</tr>
<tr>
<td>Rice, Tammy M</td>
<td>Associate Professor, MA, Western Kentucky University, 1984</td>
</tr>
<tr>
<td>Runyon, Carl R</td>
<td>Associate Professor, MA, University of Evansville, 1973</td>
</tr>
<tr>
<td>Ruth, Deborah L</td>
<td>Associate Professor, MA, Western Kentucky University, 1993</td>
</tr>
<tr>
<td>Schmitt, Theresa M</td>
<td>Professor, MBA, University of Akron, 1992</td>
</tr>
<tr>
<td>Skaggs, Meredith</td>
<td>Associate Professor, EdD, Western Kentucky University, 2015</td>
</tr>
<tr>
<td>Stone, Larry G</td>
<td>Instructor, Diploma, Owensboro Community and Technical College, 2005</td>
</tr>
<tr>
<td>Swanson, Susan</td>
<td>Associate Professor MA, Western Kentucky University, 2007</td>
</tr>
<tr>
<td>Taylor, Eunice K</td>
<td>Associate Professor, PhD, Capella University, 2015</td>
</tr>
<tr>
<td>Tudor, Michelle G</td>
<td>Associate Professor, AAS, Owensboro Community College, 2000</td>
</tr>
<tr>
<td>Wallace, Albert F</td>
<td>Professor, MBA, Xavier University, 1978</td>
</tr>
<tr>
<td>Wetzel, William F</td>
<td>Professor, PhD, Southern Illinois University - Carbondale, 1987</td>
</tr>
<tr>
<td>Wilson, Pamela S</td>
<td>Associate Professor, MA, Southern Illinois University - Edwardsville, 1995</td>
</tr>
<tr>
<td>Wood-Graesla, Vickie A</td>
<td>Associate Professor, AAS, Owensboro Community and Technical College, 2003</td>
</tr>
<tr>
<td>Yazvac, Joseph</td>
<td>Professor, EdD, Auburn University, 2002</td>
</tr>
</tbody>
</table>
Mission Statement/Status of Accreditation

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

- College and workforce readiness
- Transfer education
- Workforce education and training
- Student support services

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

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

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

Academic Programs

Transfer Curricula
- Associate in Arts
- Associate in Science

Occupational/Technical Curricula

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

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

Contact Information

Somerset Community College

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

SCC Laurel Campus
100 University Dr.
London, KY 40741

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

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

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

SCC Casey Center
1 Pettyjohn St.Liberty, KY 42539

General Information

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
Institutional Advancement 606-451-6618
Library/Learning Commons (606) 451-6710
Marketing/Public Relations (606) 451-6618
Transfer Center (606) 451-6650
Veterans Affairs (606) 451-6857
Website somerset.kctcs.edu
Administration

President/CEO
Jo Marshall, PhD

Provost
Tony Honeycutt, EdD

Associate Provost
Clint Hayes, EdD

Dean of Applied Technology
Roger Angevine

Dean of Student Affairs
Tracy Casada

Dean of Learning Support
Bruce Gower

Dean of Health Sciences
Nancy Powell

Associate Dean of Distance Learning/Learning Support
Linda Bourne

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

Associate Dean of Career & Technical
Dan Burnett

Associate Dean of Math & Natural Sciences
Kim Cleberg

Associate Dean of Business & Professional Services
Vacant

Chief Workforce Solutions Officer
Lois McWhorter

Chief Operations Officer
Alesa Johnson

Chief Business Affairs Officer
Larry Abbott

Chief Institutional Advancement Officer
Jill McFee

Cindy Clouse

Faculty

Ahner, Jeffery, Instructor, BS, Eastern Kentucky University, 2015

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

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

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

Atkinson Bigelow, Johanna, Professor, MA, University of Kentucky, 1988

Ballard, Linda K, Professor, EdD, Eastern Kentucky University, 2016

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

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

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

Bentley, Sheila, Assistant Professor, MS, Eastern Kentucky University, 2009

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

Bloomingburg, Michael S, Associate Professor, MA, Eastern Kentucky University, 2005

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

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

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

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

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

Bryales, Angela W, Associate Professor, MS, Eastern Kentucky University, 1999

Burliew, 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, MAEd, Eastern Kentucky University, 1986

Calcaterra, Carol L, Associate Professor, MBA, Eastern Kentucky University, 1993

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

Carothers, Franklin T, Professor, PhD, Mississippi State University, 2014

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

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

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

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

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

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

Coffey, David A, Associate Professor, MS, Eastern Kentucky University, 2015

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

Copenhagen, Brandy Wilson, Professor, MS, Eastern Kentucky University, 2006

Cunningham, Gary, Associate Professor, EdD, Texas A&M University, 2006

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

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

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

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

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

Eastham, Tamara K, Instructor, MSN, Eastern Kentucky University, 1996

Elam, Debra L, Associate Professor, AS, Somerset Community College, 2014

Farnsworth, Adam, Assistant Professor, BS, Berea College, 2004

Feldman, Samantha, Assistant Professor, BS, Eastern Kentucky University, 2004

Flanary, Randall, Professor, MS, Eastern Kentucky University, 2015

Flynn, Lynsey R, Instructor, MSN, Western Kentucky University, 2016

Franklin, Tracy, Assistant Professor, BA, Midway College, 2014

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

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

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

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

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

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

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

Gover, Glen B, Professor, EdD, Eastern Kentucky University, 2017

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

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

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

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

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

Hewitt, John, Assistant Professor, MSN, Western Kentucky University, 2016

Hinkle, Debra J, Instructor, MS, Eastern Kentucky University, 2010

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

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

Howe, Julie M, Associate Professor/Library, MLS, University of Kentucky, 2010

Huffaker, Lorna S, Professor, MS, Eastern Kentucky University, 2003

Husman, Mary Taylor, Professor/Library, MA/MLS, University of Kentucky, 1994

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

Jacobs, 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 Jaharul, Associate Professor, DVM, Bangladesh Agricultural University, 1977

Kilgore, April L, Professor, PhD, University of Kentucky, 1994

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

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

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

Larison, Irene J, Associate Professor, MA, National University, 2010

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

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

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

Mace, Ronald W, Associate Professor, MA, Morehead State University, 1984

Martin, Ruth S, Professor, DNP, Western Kentucky University, 2017

Martinex, George M, Professor, MS, Murray State University, 1991

Marzka, Richard S, Associate Professor, EdD, University of Kentucky, 2012

McClendon, Steven S, Associate Professor, Instructor, EdD, University of the Cumberlands, 2012

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

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

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

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

Mills, Angela N, Associate Professor, BS, Northern Kentucky University, 2007

Mills, Craylon T, Associate Professor, PhD, Capella University, 2015

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

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

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

Nazarro, Eduard, Assistant Professor, AAS, Sullivan University, 2005

Oaks, Chelsea, Assistant Professor, MS, Eastern Kentucky University, 2014

Osborne, Roger, Professor, MA, University of Louisville, 2002

Owens, Jennifer, Associate Professor, AAS, Somerset Community College, 2008

Perkins, Jefferson, Professor, MA, Eastern Kentucky University, 1993

Peterson, Betty W, Professor, MS, University of Kentucky, 1986

Phipps, David A, Associate Professor, AAS, Somerset Technical College, 2000

Phipps, Devin, Assistant Professor/Library, MLS, University of Kentucky, 2011

Pierce, Christopher A, Associate Professor, BS, University of Kentucky, 2003

Powell, Nancy L, Professor, MA Ed., Eastern Kentucky University, 1987

Price, Carol A, Associate Professor, MSN, Eastern Kentucky University, 2014

Ramilo, Cecil A, Associate Professor, PhD, Washington State University, 1996
Ratliff, Donna R, Professor, M.A. Ed, Eastern Kentucky University, 1999
Hollinrake, James E, Associate Professor, BSN, Eastern Kentucky University, 2003
Shearer, Elizabeth, Professor, MA, Western Kentucky University, 1988
Shelton, Billie J, Associate Professor, DNP, Eastern Kentucky University, 2017
Sherman, Gary J, Professor, MS, University of Wyoming, 1979
Sherman, Loris E, Professor, MS, University of Wyoming, 1985
Simpson, William Stuart, Professor, MS, Eastern Kentucky University, 2004
Smith, Jimmy R, Associate Professor, AS, Eastern Kentucky University, 1999
Spencer, Robert T, Professor, MA, Eastern Kentucky University, 1993
Starnes, John H, Associate Professor, Ph.D., University of Kentucky, 2013
Stephens, Erin, Associate Professor, MA, Eastern Kentucky University, 2007
Stringer, Gail S, Professor, MS, Eastern Kentucky University, 1989
Swanner, Regina K, Professor, BS, Eastern Kentucky University, 2007
Taylor, Guy L, Instructor, BS, University of Kentucky, 1981
Taylor, James H, Associate Professor, MA, Eastern Kentucky University, 2002

Thomas, Janice E, Assistant Professor, MSN, Eastern Kentucky University, 2008
Tincher, James E, Assistant Professor, AAS, Somerset Technical College, 2000
Toby, Kimberly L, Associate Professor, MS, University of Kentucky, 1998
Tomlinson, Nick, Professor, MS, Eastern Kentucky University, 2006
Upchurch, Joni M, Associate Professor, BS, Eastern Kentucky University, 2016
Ware, Lisa N, Associate Professor, MAEd, Eastern Kentucky University, 2010
Waterstrat, Amanda J, Associate Professor, PhD, University of Kentucky, 2009
Watson, Karl D, Professor, BS, Eastern Kentucky University, 2002
Watters, Tammy R, Associate Professor, BSN, Eastern Kentucky University, 2015
Wehl, Karen Calvert, Professor, BS, Eastern Kentucky University, 1998
Wells, Michael, Assistant Professor, BS, Indiana Wesleyan University, 2013
Wheat, Dee, Assistant Professor, ASN, Eastern Kentucky University, 1993
Wilson, Jennifer K, Professor, MSN, Eastern Kentucky University, 2000
Woodbridge, Eric N, Professor, BS, University of Kentucky, 2001
Xia, Zhiming, Associate Professor, MS, University of Mississippi, 1999
Mission Statement/Status of Accreditation

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

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

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

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

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

Academic Programs

Transfer Curricula

- Associate in Arts
- Associate in Science

Occupational/Technical Curricula

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

General Information

- Admissions (270) 901-1094
- Adult Education & Literacy (270) 901-1013
- Business Office
  - 1-855 246-2482
- Workforce Solutions (270) 901-1033
- Assessment & Testing (270) 901-1036
- Disability Services (270) 901-1202
- Financial Aid
  - 1-855 246-2482
- Human Resources (270) 901-1115
- Institutional Advancement (270) 901-1116
- Library (270) 901-1155
- Public Relations (270) 901-1117
- Records (270) 901-1001

- Denna White
- Brian Becker
- Gara Clarkson
- Dr. Kim Myers
- Elaine Yates
- Pam Bulle
- Jennifer Wells
- Heather Forester
- Janice Gabbard
- Mark Brooks
- Amy Cannon
Administration

President
Dr. Phillip Neal

Provost
Dr. Maggie Shelton

Interim Vice President of Student and Organizational Success
Brooke Justice

Vice President of Finance and Administration
ChrisCumens

Vice President of Outreach and Community Development
Dr. James McCaslin

Executive Director of SKYCTC Foundation & Associate Vice President of Advancement
Heather Rogers

Director of Human Resources
Sherriforoster

Deans

Arts and Humanities
Dr. Tonya Daniels

Business
GeneBasil

Applied Technology
GeneBasil

Allied Health and Nursing
Kevin Konady

and Director, Glasgow Campus
GeneBasil

Mathematics and Sciences
Lisa Hunt

Engineering and Machine Tool Technology

Business

Faculty

Adams, Elizabeth C, Assistant Professor, MA, Western Kentucky University, 2012

Adams, Jessica L, Associate Professor, MS, Murray State University, 2001

Atwell, Sheila D, Assistant Professor, MSN, Western Kentucky University, 2005

Bayer, Jessica, Assistant Professor, MS, Southern Illinois University, 2007

Banks, Deborah P, Assistant Professor, MA, Western Kentucky University, 2006

Beagle, Gary W, Associate Professor, MA, Western Kentucky University, 1995

Bourque, Brittany, Associate Professor, BSN, Western Kentucky University, 2005

Bradford, Joshua, Associate Professor, BS, Western Kentucky University, 2006

Bronson Jr, James P, Professor, BS, Madison University, 2002

Case, Joseph C, Assistant Professor, MA, Trevecca Nazarene University, 2011

Crowe, Debra, Assistant Professor, AS, Western Kentucky University, 1997

Combs, Rex Allen, Professor, MS, Western Kentucky University, 2014

Conner, Rebecca E, Assistant Professor, Ph.D, Texas Woman’s University, 1996

Ellis, Claudene, Assistant Professor, MA, Nova Southeastern University, 2005

Ewing, Mark A, Instructor, Certificate, Southcentral Kentucky Community & Technical College, 2006

Faine, John B, Associate Professor, MS, Northern Kentucky University, 2006

Finley, Joseph Lynn, Associate Professor, MS, University of Kentucky, 2002

French, Esther G, Assistant Professor, MA, University of Southern Mississippi, 2005

Florence, Christina, M, Assistant Professor, MA, Western Kentucky University, 2012

Fose, Jacob F, Instructor, MS, Western Kentucky University, 2013

Fose, Margaret R, Assistant Professor, MA, Western Kentucky University, 2012

Galloway, Angela M, Assistant Professor, MS, University of Kentucky, 2005

Gardner - Palmer, Jahi M, Instructor, MS, Western Kentucky University, 2014

Gaskins, Carmen C, Professor, MS, Western Kentucky University, 1994

Gentry, Traci, Associate Professor, MSN, Western Kentucky University, 2011

Gibbons, Jacqueline R, Instructor, MA, Western Kentucky University, 2011

Greer, Michael, Associate Professor, AA, Bowling Green Technical College, 2012

Gregory, Jeffrey, Instructor, AAS, Southcentral Kentucky Community & Technical College, 2010

Hagan, Chris A, Assistant Professor, AS, Southcentral Community and Technical College 2016

Harlan, Angela K, Professor, DNP, Northern Kentucky University, 2016

Harris, Myria D, Assistant Professor, MA, Chamberlain College of Nursing, 2012

Harris, Patricia A, Instructor, MBA, Western Kentucky University, 1999

Hatcher, Steve A, Professor, BS, Western Kentucky University, 2011

Houchens, Charles D, Professor, MS, Western Kentucky University, 2009

Hunt, Jon D, Associate Professor, AAS, Bowling Green Technical College, 2006

Jeter, Christopher N, Assistant Professor, BS, Western Kentucky University, 2009

Jones, Charles D, Assistant Professor, MA, Savannah College of Art and Design, 1990

Kennedy, Barry A, Associate Professor, MA, Western Kentucky University, 2003

Knowles, Brian A, Instructor, MS, Western Kentucky University, 2016

LeFevre, Kathryn A, Assistant Professor, MS, University of Kentucky, 2007

Lindsey, Jason E, Instructor, AAS, Southcentral Kentucky Community and Technical College, 2012

McKenney, Ken D, Associate Professor, BS, Western Kentucky University, 2014

McKee, Nancy, Associate Professor, MSN, Western Kentucky University, 2006

Moorman, John K, Assistant Professor, BS, Western Kentucky University, 1977

Mullally, Aaron T, Assistant Professor, MA, The College of Saint Scholastica, 2007

Murphy, Terrell W, Associate Professor, MS, Western Kentucky University, 1993

Norwood, Amy Paige, Associate Professor, BS, Mid-Continent University, 2008

Otto, Kimberly D, Associate Professor, MA, Western Kentucky University, 2006

Papapoula, Loucas, Professor, MS, Western Kentucky University, 1989

Pate, Virendrakumar Anikumar, Associate Professor, MA, Eastern Kentucky University, 2010

Pennycuff II, Donald B, Associate Professor, MS, Western Kentucky University, 2007

Peyton, Natassia L, Instructor, MSN, Western Kentucky University, 2016

Phipps, Jefery W, Professor, BS, Western Kentucky University, 2000

Potter, Bruce D, Associate Professor, MA, Western Kentucky University, 2004

Proffitt, Jessica, F, Assistant Professor, BSN, Western Kentucky University, 2012

Purpus, Carmen E, Assistant Professor, MPA, Western Kentucky University, 2007

Richardson, Merrie, R, Instructor, MS, Western Kentucky University, 2014

Royse, Christopher L, Associate Professor, BS, Murray State University, 2004

Shive, April, Associate Professor, MSN, Western Kentucky University, 2011

Shocmake, Jennifer J, Professor, Ed.D, University of Kentucky, 2017

Slaughter, Lori A, Professor, MA, Western Kentucky University, 2010

Smith, Shellena R, Assistant Professor, MA, Eastern Kentucky University, 2011

Sparks, Richard B, Professor, BS, University of Kentucky, 2003

Stagner, Phillip W, Associate Professor, MA, 2004, Webster University, 2004

Stephens, Jeremy D, Associate Professor, AAS, Bowling Green Technical College, 2010

Tackett, Kristina, Associate Professor, MS, Western Kentucky University, 2009

Taylor, Beau H, Instructor, AS, Southcentral Kentucky Community & Technical College, 2013

Taylor, Michael O, Professor, BA, Western Kentucky University, 1972

Trivett, Darrell S, Instructor, AAS, Western Kentucky University, 2011

Turner, James R, Assistant Professor, MA, Western Kentucky University, 1972

Turner, Kerry S, Associate Professor, AAS, Bowling Green Technical College, 2008

Varney, Berta, Assistant Professor, MA, Morehead State University, 1998

Waggoner, Constance J, Associate Professor, MS, Capella University, 2009

Ward, Teresa Y, Assistant Professor, MS, Troy University, 1983

Wendt, Leah D, Assistant Professor, MA, California State Polytechnic University, 2008

West, Jared D, Instructor, AAS, Southcentral Kentucky Community and Technical College, 2006

White, Renee, Assistant Professor, Ph.D, University of Louisville, 2003

Williams, Thomas W, Associate Professor, MA, Western Kentucky University, 2007

Wilkins, Diane A, Professor, MA, University of Kentucky, 1999

Wolters, John Jr, Assistant Professor, MA, Southcentral Kentucky Community and Technical College, 2009

Youngquist, Sherry W, Assistant Professor, MA, Western Kentucky University, 1997
Southeast Kentucky Community and Technical College

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

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

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

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

Academic Programs

Transfer Curricula
Associate in Arts
Associate in Science

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

- Air Conditioning Technology (C, D)
- Appalachian Studies (C)
- Auto Body/Collision Repair Technology (C, D)
- Automotive Technology (C, D)
- Broadband Technology (C)
- Business Communications (C)
- Business Foundations (C)
- Business Studies:
  - Business Administration Systems (C, A)
  - Medical Information Technology (C, D)
- Computer Aided Drafting and Design (C, D)
- Computer and Information Technologies (C, A)
- Computerized Manufacturing and Machining (C, D)
- Construction Technology (C, D)
- Criminal Justice (C, A)
- Diesel Technology (C, D, A)
- Education (A)
- Emergency Medical Services – Paramedic (C)
- Emergency Medical Technician (C)
- Engineering Related – Project Lead the Way (PLTW) (C)
- Engineering and Electronics Technology (C, D)
- General Occupational/Technical Studies (A)
- Heavy Equipment Operation (C, D)
- Interdisciplinary Early Childhood Education (C)
- Manufacturing Industrial Technology:
  - Electrical Technology (C, D)
  - Industrial Maintenance Technology (C, D)
- Medical Assisting (C, D)
- Medical Laboratory Technology (C, A)
- Mining Technology (C)
- Nursing (A)
- Nursing – Academic/Career Mobility (D)
- Physical Therapist Assistant (A)
- Practical Nursing (C)
- Professional Craft: Pottery (C)
- Respiratory Care (A)
- Social Media Marketing (C)
- Surgical Technology (D, A)
- Surveying & Mapping Technology (C)
- Welding Technology (C, D)
- Workplace Safety Specialist (C)

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

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

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

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

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

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

Administration

President
Chief Academic Affairs Officer
Chief Business Affairs Officer
Chief Student Affairs Officer
Chief Institutional Advancement Officer
Chief Learning Officer
Workforce Solutions Director
Chief Information Technology Officer
Chief Cultural Diversity Officer
Director of Developmental Ed/Academic Support
Director of Human Resources
Director of Marketing/Public Relations
Division of Allied Health and Related Technologies
Division of Arts & Humanities
Division of Industrial Technology
Division of Natural Sciences and Mathematics
Division of Nursing and Related Technologies
Division of Social & Behavioral Sciences
Manager of Operations/Safety & Security

Dr. Vic Adams
Elijah Buell
Angela Simpson
Dr. Rebecca Parrott
TBD
Dr. Rick Mason
Sherri Clark
Merrill Galloway
Dr. Carolyn Sundy
Billie Franks
Tiffany Scott
Michael S. Good
Ann Maciula
Ronn Daniels
Rhonda L. Creech
Michael S. Good
Kevin Lambert
Ron Hayes

Faculty

Abrams, Emily, Instructor, BS, King University, 2014
Ahldolt, Lisa A, Librarian I, MS, University of Tennessee, 1995
Bargo, Glenna, Associate Professor, MSN, Eastern Kentucky University, 2008
Barrick, Lisa, Instructor, M.Ed., Lincoln Memorial University, 2010
Blanton, Scott, Professor, MSN, Northern Kentucky University, 2011
Bowling, Kenneth N, Professor, BS, Union College, 2003
Bowling, Tracy, Professor, PT, DPT, University of Kentucky, 2010
Bowling, Roger A, Professor, MS, Eastern Kentucky University, 2000
Brooks, Lana, Assistant Professor, MSN, Western Kentucky University, 2014
Buell Jr, Elijah, Professor, MBA, Morehead State University, 1980
Burnside, Patricia, Professor, MAEd, Tusculum College, 2007
Carmack, Michael E, Professor, AAS, Harlan Regional Technology Center, 1995
Chapman, Tammie, Professor, MA, Cumberland College, 1995
Clark, Darrin, Associate Professor, MS, University of Kentucky, 1999
Cloud, Victoria, Associate Professor, MA, Ed, Western Kentucky University, 2014
Clatts, David W, Professor, Ed.D, Liberty University, 2010
Collier, William G, Professor, Eastern Kentucky University, 1992
Conkin, Peggy, Professor, MA, Morehead State University, 1985
Conover, Edwin Wheeler, Professor, PhD, Cincinnati, 1996
Cox, Donna, Associate Professor, MA, Union College, 1973
Cox, Lynn, Librarian I, MS, University of Kentucky, 1994
Creech, Rhonda L, Professor, MA, Morehead State University, 1996
Daniels, Ronnie W, Professor, BS, Eastern Kentucky University, 2000
Dingus, Ariel, Assistant Professor, MA, Middle Tennessee State University, 2012
Ditty, Kathy, Associate Professor, M.Ed, Lindsey Wilson College, 2004
Dixon, Jill Suzanne, Associate Professor, DPT, University of Kentucky, 2011
Druen, Matthew, Assistant Professor, Ph.D., University of Louisville, 2010
Dyer, Bradley, Professor, M.S., Eastern Tennessee State University, 1999
Eldahan, Ismail A, Associate Professor, MS, American Sentinel University, 2008
Eldridge, Tracy, Instructor, BS, Lincoln Memorial University, 2010
Epling, Michael, Professor, MBA, Morehead State University, 1995
Felds, Brian, Assistant Professor, M.S., Everest University, 2010
Fleming, April, Assistant Professor, BSN, Morehead State University, 2013
Forbes, Zelma M, Professor, MS, Ohio University, 1983
Forsman-Scopa, Elana, Associate Professor, MS, Eastern Kentucky University, 2003
Gepe, 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
Halcomb Jr, Astor, Professor, BLS, Morehead State University, 1992
Harris, Kevin, Instructor, Ph.D., University of Kentucky, 2015
Helton, Melissa, Associate Professor, MFA, Bowling Green State University, 2006
Hendley, Evelyn M., Librarian II, MS University of Kentucky, 2006
Herren, Douglas, Professor, AAS, Southeast Kentucky Community and Technical College, 2006
Holbrook, Sandy, Professor, M.Ed, Western Kentucky University, 2011
Hughes, Carlton W, Professor, MA, Marshall University, 1987
Jackson, Terri, Associate Professor, MSN, Western Kentucky University, 2014
Johnson, Joseph, Associate Professor, PhD, Clemson University, 2010
Jones, Jamie, Assistant Professor, MA, Eastern Kentucky University, 2006
Jones, Lynn Y, Professor, MA, Eastern Kentucky University, 1983
Kidwell, David T, Professor, PhD, University of Kentucky, 1993
Lambert, Kevin, Professor, MS, University of Kentucky, 1994
Lawson, Rebecca L, Associate Professor, CST, BA, Ashford University 2007
Layne, Kenneth, Assistant Professor, BS, Eastern Kentucky University, 1998
Maciula, Terry A, Professor, MA, Oklahoma State University, 1991
Marcum, Joseph S, Professor, MA, University of Tennessee, 1980
Marsec, Stephanie, Instructor, BSN, University of Pikeville, 2014
Mayes, Caroline, Associate Professor, MA, National University, 2007
McDannel, James H, Associate Professor, PhD, Southern Illinois University at Carbondale, 1981
McDonnell, Raymond E, Associate Professor, PhD, University of Tennessee, 1997
Middleton, Barbara, Librarian, BSN, University of the Cumberlands, 2015
Miles, Nancy, Associate Professor, Certificate, Mountain Empire Community College, 1976
Miller, Rebecca D, Professor, MA, Union College, 1998
Mills, Dana, Instructor, AAS, Fugazi College, 1999
Murphy, Kevin, Librarian I, MLS, University of Kentucky, 1995
Muse, Jessica, Instructor, Lincoln Memorial University, 2015
Omar, Saeb, Associate Professor, PhD, Mississippi State University, 1987
Pennington, Joy, Associate Professor, MSN, Chamberlain College of Nursing, 2013
Ray, Johnny E, Associate Professor, BS, Eastern Kentucky University, 2000
Schartz, Ann E, Professor, MA, Indiana University, 1986
Scopa Jr, Joseph A, Professor, MS, Eastern Kentucky University, 2011
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, Associate Professor, AAS, Southeast Kentucky Community and Technical College, 2011
Steenbergen, Gary L, Professor, MS, Eastern Kentucky University, 1996
Stewart, Jenny, Assistant Professor, BS, University of Kentucky, 1982
Sundy, Carolyn M, Professor, Ph.D., Mississippi State University, 2017
Turner, Delilah, Instructor, BS, Eastern Kentucky University, 2013
Turner, Mary Leann, Associate Professor, BS from EKU, 1997
Vaugh, Jamie, Professor, MBA, University of Kentucky, 1981
Walker, Robert, Assistant Professor, AAS, Southeast Kentucky Community and Technical College, 2016
Webb, Danny, Associate Professor, MA, Eastern Kentucky University, 1994
Whited, Paula, Assistant Professor, MSN, University of Louisville, 2017
Wright, Wendy, Associate Professor, MS, Eastern Kentucky University, 2015
Mission Statement/Status of Accreditation

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

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

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

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

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

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

Academic Programs

Transfer Curricula

Associate in Arts
Associate in Science

Transfer Curricula/Art Related

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

Visual Art (A)

Occupational/Technical Curricula

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

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

Business Studies:

- Administrative Office Technology (C)
- Business Administration Systems (C, D, A)
- Medical Information Technology (C, D, A)

Computer Aided Drafting and Design (C, D)
Computer and Information Technologies (C, A)

Computerized Manufacturing and Machining (C, D, A)
Cosmetology (C, D)
Criminal Justice (C, A)

Culinary Arts (C, D, A)

Dental Assisting/Dental Hygiene (D)
Diesel Technology (C, D)

Diagnostic Medical Sonography (A)
Emergency Medical Services – Paramedic (A)

Emergency Medical Technician (C)
Fire/Rescue Science Technology (C, D, A)

General Occupational/Technical Studies (A)
Health Science Technology (A)

Heavy Equipment Operation (C)
Homeland Security/Emergency Management (C, A)

Interdisciplinary Early Childhood Education (C, A)

Logistics and Operations Management (C, A)
Manufacturing Industrial Technology:

- Electrical Technology (C, D, A)
- Industrial Maintenance Technology (C, D, A)
- Marine Technology (C, A)
- Mechatronics (C)
- Medical Laboratory Technology (C, A)
- Nursing (A)
- Pharmacy Technology (C)
- Physical Therapist Assistant (A)
- Practical Nursing (C, D)
- Radiography (C, A)
- Surgical Technology (A)
- Truck Driver Training (C)

Visual Communication:

- Design & Technology (C)
- Multimedia (C, D, A)
- Printing (C)

Welding Technology (C, D)

Contact Information

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

Accessibility Services (270) 534-3406
Admissions/Records 1-855-GO-WKCTC (1-855-469-5282)
Advising Center 1-855-GO-WKCTC (1-855-469-5282)
Adult Learning Center (Adult Education/GED program)
  McCracken County (270) 534-3451
  Graves County (270) 856-2422
Assessment Center 1-855-GO-WKCTC (1-855-469-5282)
Bookstore (Anderson Technical Building) (270) 534-3247
Business Office 1-855-GO-WKCTC (1-855-469-5282)
Challenger Learning Center (270) 534-3101
Clemens Fine Arts Center Box Office (270) 534-3212
Community Education (270) 534-3335
Commonwealth Middle College (270) 534-3350
Financial Aid 1-855-GO-WKCTC (1-855-469-5282)
General Information (270) 534-9200
Human Resources (270) 534-3078
Library (270) 534-3197
Nursing (270) 534-3466
Paducah School of Art & Design (270) 534-3901
Public Relations (270) 534-3083
Purchase Training Center (Mayfield) (270) 247-9633
Security (270) 564-8403
Skilled Craft Training Center (Mayfield) (270) 856-2400
Workforce Solutions Assessments (270) 534-3490
Transfer Advising Center (270) 534-3187
TRIO - Student Support Services (270) 534-3180
University of Kentucky College of Engineering (270) 534-3129
Veterans Affairs (270) 534-3861
Website westkentucky.kctcs.edu

**Administration**

- **President/CEO**
  - Dr. Anton Reece

- **Vice President of Academic Affairs**
  - Dr. David Heflin

- **Interim Vice President of Workforce & Economic Development**
  - Kevin O’Neill

- **Vice President of Student Development**
  - Dr. Belinda Dalton-Russell

- **Vice President of Business Affairs**
  - Susan Graves

- **Vice President of Operations**
  - TBA

- **Vice President of Enrollment Management**
  - Dr. Nate Slaton

- **Director of Human Resources**
  - Lee Emmons

- **Director of Institutional Advancement**
  - Bridget Caner

- **Director of Marketing and Public Relations**
  - Janett Blythe

- **Director of the Clemens Fine Arts Center**
  - Brian Heller

- **Director of Adult Education**
  - Dr. Kay Combs

- **Associate Vice President of Academic Affairs**
  - TBA

- **Associate Vice President of Learning Initiatives**
  - Dr. Renae Akin

- **Dean of Online Learning**
  - Carrie Hopper

- **Dean of Allied Health and Personal Services Division**
  - Stephanie Milliken

- **Dean of Applied Technologies Division**
  - Tammy Potter

- **Dean of Business and Computer Related Technologies Division**
  - Britton Shurley

- **Dean of Humanities, Fine Arts and Social Sciences Division**
  - Shari Ghoshlan

- **Dean of Nursing Division**
  - Paul Aho

- **Dean of Paducah School of Art and Design Division**
  - Dr. Karen Hlinka

- **Dean of Science and Mathematics Division**
  - Allbritten, Cynthia H, Instructor, MSN, Chamberlain College of Nursing, 2013
  - Arnone, Samuel J, Assistant Professor, BS, Southern Illinois University, 1998
  - Black, Thomas M, Instructor, BSN, Murray State University, 2005
  - Blaine, Patricia A, Professor, MA, Fort Hays State University, 1981
  - Blankenship, Michelle, Instructor, MSN, Indiana Wesleyan University, 2013
  - Boyles, Esmarie, Instructor, PhD, Southern Illinois University, 2017
  - Broadbelt, Kathryn P, Instructor, PhD, University of Louisville, 1988
  - Brown, Rebecca H, Associate Professor, PhD, Virginia Tech, 2009
  - Buchanan, Patricia A, Professor, MS, Murray State University, 2016
  - Burgess, Melissa A, Instructor, MS, Murray State University, 2000
  - Cahill, Charles S, Assistant Professor, MS, California Polytechnic State University, 2009
  - Caldwell, Paul H, Assistant Professor, BS, Murray State University, 2016
  - Carrico, Mary C, Professor, MSN, Jacksonville University, 2016
  - Cates, Joel D, Associate Professor, MS, Murray State University, 2011
  - Coltharp, Heather L, Professor, MSE, University of Kentucky, 1999
  - Darnell, Laken N, Instructor, BSN, Murray State University, 2013
  - Day, Jamie A, Associate Professor, B.S., Murray State University, 2015
  - Dickerson, Craig T, Associate Professor, AAS, West Kentucky Community and Technical College, 2008
  - Donner, Jason W, Associate Professor, MA, Murray State University, 1995
  - Doss, Kimberly M, Instructor, AAS, Community College of the Air Force, 1997
  - Dotson, Megan E, Associate Professor, MAE, Murray State University, 2010
  - Draffen, Carla K, Professor, MBA, Murray State University, 1987
  - Driver, Timmy E, Associate Professor, AAS, West Kentucky Community and Technical College, 2006
  - Duncan, Gwendolyn L, Instructor, MA, International Theological University, 2006
  - Durbin, Laura R, Associate Professor, MSN, Indiana Wesleyan University, 2013
  - Durham, Elizabeth A, Assistant Professor, MA, Nazareth College, 1987
  - Engelland, Erik J, Instructor, AAS, West Kentucky Community and Technical College, 2010
  - Ewing, Cheryl L, Associate Professor, MSN, American Sentinel University, 2013
  - Fletcher, Patrick A, Associate Professor, BBA, University of Kentucky, 2001
  - Flynn, Maria K, Professor, MA, Murray State University, 1985
  - Gericke, Kevin L, Professor, PhD, Virginia Polytechnic Institute, 1993
  - Ghoshlan, Shari D, Professor, MSN, Vanderbilt University, 1997
  - Goodaker, Gary W, Professor, MS, University of Illinois at Urbana Champaign, 1997
  - Green, Curtis D, Assistant Professor, AAS, Southern Illinois College, 2009
  - Gunn, Robert G, Associate Professor, BA, University of Alaska Fairbanks, 1981
  - Harper, Shawn, Associate Professor, MS, Murray State University, 1990
  - Hasegawa, John S, Associate Professor, MFA, University of Oregon, 2000
  - Heflin, Connie S, Professor, MSN, University of Evansville, 1983
  - Hely, Sueann Wade, Professor, MBA, Murray State University, 1983
  - Henderson, Tyra F, Associate Professor, MA, Murray State University, 2001
  - Henry, Greta G, Assistant Professor, MS, Murray State University, 2000
  - Hlinka, Karen F, Professor, EdD, University of Kentucky, 2012
  - Hobbs, Darren J, Assistant Professor, BS, Western Kentucky University, 2015
  - Hofer, William S, Assistant Professor, AAS, West Kentucky Community and Technical College, 2011
  - Holland, Virgil T, Associate Professor, AS, Murray State University, 2012
  - Hopper, Carrie, Associate Professor, MS, Murray State University, 2008
  - Howard, William D, Assistant Professor, AAS, West Kentucky Community and Technical College, 2016
  - Hutchinson, Sharla E, Professor, MA, Western Kentucky University, 1980
  - Isenberg, Paula R, Associate Professor, MSN, University of Southern Indiana, 2010
  - Johnson, Jonathan B, Assistant Professor, MS, Bellevue University, 2012
  - Johnson, Margaret F, Associate Professor, MSN, University of Phoenix, May 2011
  - Jones, Latoya A, Associate Professor, DC, Life University, 2001
  - Jordan, Tracy L, Associate Professor, MA, Murray State University, 1986
  - Knapp, Jo A, Professor, MA, Murray State University, 1990
  - Lee, Bobby A, Professor, MS, Murray State University, 1995
  - Liu, Sarah S, Professor, PhD, Old Dominion University, 2006
  - Lyons, Vanessa E, Instructor, PhD, University of Missouri, Columbia, 2015
  - Mahoney, Joseph D, Professor, MA, Murray State University, 1990
  - Martin, Patricia A, Associate Professor, MSN, Murray State University, 2000
  - McDaniel, Tracy L, Professor, BS, Murray State University, 2009
  - McGuffin, Allison S, Associate Professor, MS, University of Colorado at Denver, 1998
  - McMullen, DeAnn J, Professor, MEd, Memphis State University, 1989
  - Miller, Rhanda G, Assistant Professor, BSN, Murray State University, 1988
  - Milliken, Stephanie K, Professor, MS, Murray State University, 1996

**Faculty**

Aho, Paul R, Associate Professor, MA, Murray State University, 1985
Akin, Selena R, Professor, EdD, Vanderbilt University, 2010
Akojie, Felix O, Professor, PhD, University of IFE, Nigeria, 1985

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Morgan, Tiffinee S, Professor, MA, Murray State University, 1998
Newborn, Bradley C, Assistant Professor, AAS, West Kentucky Community and Technical College, 2013
Nickell, David L, Professor, MA, Western Kentucky University, 1982
Perry, Carolyn K, Professor, MBA, Thunderbird School of Global Management, 1980
Petitt, Christy L, Associate Professor, MSN, University of Southern Indiana, 2007
Potter, Tammy F, Professor, MAEd, Murray State University, 1993
Powell, Lyman R, Instructor, AAS, John A. Logan College, 1988
Pruitt, Douglas L, Professor, PhD, Bowling Green State University, 2000
Quimby, Beverly F, Professor, BS, Mid-Continent University, 2007
Ragland, Tina L, Assistant Professor, MS, Southern Illinois University at Carbondale, 2008
Reese, Gary L, Associate Professor, MPA, Murray State University, 1987
Roof, Sally, Professor, MS, Murray State University, 2002
Russell, Kimberly G, Associate Professor, MA, Southeast Missouri State University, 2000
Sahawneh, Faris G, Instructor, PhD, Northcentral University, 2016
Savage, Kimberly J, Instructor, BS, Murray State University, 2003
Senn, Catherine E, Professor, MS, Johns Hopkins University, 1995
Shirley, Britton M, Associate Professor, MFA, Indiana University, 2007
Simmons, Randall R, Professor, MFA, University of Cincinnati, 1995
Spelbring, Legatha L, Associate Professor, MA, Indiana State University, 2002
Stephenson, Lisa G, Professor, EdD, University of Kentucky, 2012
Stewart, Michael E, Professor, MS, Murray State University, 1977
Stoffel, Claudia A, Professor, MSN, Bellarmine College, 1992
Stringer, Amanda P, Instructor, AAS, Henderson Community College, 2002
Sullivan, Amy L, Librarian IV, MLSL, University of Kentucky, 2017
Swain, Deborah J, Professor, BS, Murray State University, 2008
Taveras, Victor M, Associate Professor, PhD, Pennsylvania State University, 2009
Taylor, Brent E, Assistant Professor, MA, Murray State University, 2002
Taylor, Jason D, Professor, MS, Murray State University, 2000
Teague, Sanci E, Associate Professor, MA, Murray State University, 2009
Thompson, Julie E, Associate Professor, MAT, Murray State University, 1999
Toon, Nichole M, Professor, MS, Murray State University, 2016
Vos, John D, Professor, MBA, Murray State University, 1989
Wade, Constance L, Professor, MA, Murray State University, 1991
Waldring, Corey M, Professor, MAE, Austin Peay State University, 1999
Wallace, Stanley C, Assistant Professor, AA, University of Phoenix, 1996
Walters, Nacole G, Instructor, AAS, West Kentucky Community and Technical College, 2003
Ward, Shane R, Instructor, MFA, University of Chicago, 2012
Watkins, Gerald L, Professor, MBA, Murray State University, 1984
Witherspoon, Reta P, Assistant Professor, AAS, West Kentucky Community and Technical College, 2005
Wright, Kelly R, Professor, MS, Murray State University, 1984
Youngblood, Norita A, Professor, MS, Murray State University, 2004
Admission

Applying for Admission

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

Admission and Registration Procedures

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

Non-Degree/Non-Credential Students

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

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

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

High School Students

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

• a KCTCS application for admission by the appropriate deadline
• the results of the ACT®, SAT®, KYOTE, and/or other approved placement scores in accordance with KCTCS Assessment and Placement Policy.

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

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

Second Chance Students

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

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

Transient/Visiting Students

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

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

Readmission after Two or More Years: Academic Bankruptcy

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

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

Previous College Work

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

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

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

Change of Program

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

KCTCS Assessment and Placement Policy

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

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

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

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

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

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

<table>
<thead>
<tr>
<th>ACT</th>
<th>SAT</th>
<th>COMPASS Algebra Domain</th>
<th>ASSET</th>
<th>KYOTE</th>
<th>TABE A</th>
<th>Wonderlic</th>
<th>KCTCS Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>27 or higher</td>
<td>610 or higher</td>
<td>83-99</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>MAT 170, MAT 175 or any course listed below</td>
</tr>
<tr>
<td>22 or higher</td>
<td>510 or higher</td>
<td>50-99</td>
<td>El. Alg 46-55</td>
<td>CA 14 or higher</td>
<td>NA</td>
<td>Quantitative 330 or higher</td>
<td>MAT 150 or any course listed below</td>
</tr>
<tr>
<td>19-21</td>
<td>460 or higher</td>
<td>36-49</td>
<td>El. Alg 41-45</td>
<td>CA 7-13 or MP 22 or higher</td>
<td>NA</td>
<td>Quantitative 288 or higher</td>
<td>MAT 150 with supplemental instruction 1; MAT 146, MAT 105, MAT 110, MAT 116, MAT 126 or any course listed below</td>
</tr>
<tr>
<td>18</td>
<td>31-35</td>
<td>El. Alg 39-40</td>
<td>MP 18-21</td>
<td>NA</td>
<td>Quantitative 275 or higher</td>
<td>Intermediate Algebra or MAT 126 with supplemental instruction 2 or any course listed below</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>25-30</td>
<td>El. Alg 34-38</td>
<td>MP 15-21</td>
<td>NA</td>
<td>Quantitative 265 or higher</td>
<td>MAT 105, MAT 110, or MAT 116 with supplemental instruction 2 or any course listed below</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>16-30</td>
<td>El. Alg 27-38</td>
<td>MAT 055=MP 6-11</td>
<td>NA</td>
<td>Quantitative 250 or higher</td>
<td>MAT 062, MAT 065, MAT 075 or any course listed below</td>
<td></td>
</tr>
<tr>
<td>COMPASS Pre-algebra Domain</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42-99</td>
<td>N. Skills 38-55</td>
<td>MP 12-17</td>
<td>10.2-12.9</td>
<td>Quantitative 250 or higher</td>
<td>MAT 062, MAT 065, MAT 075 or any course listed below</td>
<td></td>
<td></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>Quantitative 200 or higher</td>
<td>MAT 055</td>
<td></td>
<td></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>Quantitative less than 200</td>
<td>ARI 030 or Refer to Adult Basic Education</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

2. 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.

3. COMPASS and ASSET will not be administered after November 30, 2016.
### Reading Course Placement

<table>
<thead>
<tr>
<th>ACT</th>
<th>SAT</th>
<th>COMPASS</th>
<th>ASSET</th>
<th>KYOTE</th>
<th>TABE A</th>
<th>Wonderlic</th>
<th>KCTCS Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT 20 or higher</td>
<td>470 Critical Reading</td>
<td>85-100</td>
<td>44-55</td>
<td>20 or higher</td>
<td>12.2-12.9</td>
<td>Verbal 325 or higher</td>
<td>No reading required</td>
</tr>
<tr>
<td>19</td>
<td>83-84</td>
<td>43</td>
<td>11.4-12.1</td>
<td>NA</td>
<td></td>
<td></td>
<td>Entry-level courses with concurrent enrollment in RDG 185, or supplemental instruction 1, 2</td>
</tr>
<tr>
<td>15 or higher</td>
<td>70-82</td>
<td>38-42</td>
<td>9.0-11.3</td>
<td>NA</td>
<td></td>
<td></td>
<td>RDG 0302 or DRE 0302</td>
</tr>
<tr>
<td>12 or higher</td>
<td>49-69</td>
<td>32-37</td>
<td>5.5-8.9</td>
<td>NA</td>
<td></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>Verbal 179 or less</td>
<td>Refer to Adult Basic Education for Reading</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

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

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

### English Course Placement

<table>
<thead>
<tr>
<th>ACT</th>
<th>SAT</th>
<th>COMPASS</th>
<th>ASSET</th>
<th>KYOTE</th>
<th>TABE A</th>
<th>Wonderlic</th>
<th>KCTCS Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 or above</td>
<td>Writing 430 or Critical Reading 450</td>
<td>74-100</td>
<td>43-55</td>
<td>6 or higher</td>
<td>12.8-12.9</td>
<td>Verbal 310 or higher</td>
<td>ENG 101</td>
</tr>
<tr>
<td>14 or higher</td>
<td>39-73</td>
<td>38-42</td>
<td>9.6-12.7</td>
<td>NA</td>
<td></td>
<td></td>
<td>ENC 091</td>
</tr>
<tr>
<td>12 or higher</td>
<td>26-38</td>
<td>33-37</td>
<td>8.1-9.5</td>
<td>NA</td>
<td></td>
<td></td>
<td>ENC 090 or ARI 010</td>
</tr>
<tr>
<td>25 and below</td>
<td>204 and below</td>
<td>8.0 and below</td>
<td>Verbal 179 or less</td>
<td>Refer to Adult Basic Education for English</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

### Co-requisite Model

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

Tuition and Charges vary based on whether a student is a Kentucky resident, non-resident, or resident of a contiguous county of a contiguous state. Tuition and charges are on a per credit hour rate, including courses that are audited. For questions regarding residency status and guidelines, see Appendix A. All tuition and charges are payable in full prior to the beginning of classes for each session of the term unless prior arrangement has been made with the college business office. Consult your local college business office for specifics. 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 on Kentucky resident or non-Kentucky resident status. Qualifying students living in out of state counties that are contiguous to Kentucky may qualify for a reduced tuition rate. Fractional credit hour tuition and charges are assessed for fractional credit offerings (i.e., a student taking ¼ credit hour course would be assessed ¼ rate of student with same residency taking a 1 credit hour course). Tuition and charges are refundable as per the “Refunds” section below. Charges for services are non-refundable unless specifically stated as refundable. Consult with your college business office for specifics. Tuition charges are published at www.kctcs.edu.

Mandatory Student Fee
A mandatory student fee of $8 per credit hour will be assessed in the 2017-2018 academic year. Questions regarding fees may be directed to your college’s business office.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Refunds

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

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

Timeframe for Tuition Refunds*

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

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

KCTCS Online Learn by Term Courses*

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

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

Timeframe for Refunds*

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

Timeframe for Refunds*

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

* 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, complete testing for Kentucky Medicaid Nurse Aide or graduate. Delinquent accounts are subject to KCTCS Business Procedure 7.4 Collection of Accounts Receivable and may be referred to an outside collection agency. Note: referred accounts are subject to collection charges in addition to the amount owed the college and are the responsibility of the delinquent party. The delinquency, if referred to a collection agency, is also subject to being listed with credit reporting agencies. Specific questions may be directed to your college’s business office.

### Professional Liability Insurance

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

Overview

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

Student Eligibility and Application

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

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

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

Dual Enrollment/Consortium Agreements

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

Federal Student Loans

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

State Programs

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

Statutory Scholarships (Waivers) for Kentucky Residents

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

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

KCTCS and College Scholarships for Kentucky Residents

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

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

College Tuition Scholarships

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

Third Party Assistance Programs

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

KY Adult Education Services

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

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

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

Policies and Procedures

Right to Know

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

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

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

Student Rights and Responsibilities

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

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

Drug-Free Policy

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

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

Sexual Harassment

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

Grievance Procedures

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

Student Organizations

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

National Vocational Technical Honor Society

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

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

Student Government

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

Inter-KCTCS College Student Advisory Council

The Student Advisory Council consists of the student body president from each college. Members of this organization serve in an advisory capacity to the Vice President responsible for Student Services. The Advisory Council also provides the opportunity for the student body president 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
- grades and awards received
- the most recent previous educational agency or institution attended by the student
- participation in officially recognized activities and sports

Privacy and Release of Student Records

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

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

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

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

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

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

Appeal

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

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

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

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

**Academic Advising**

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

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

**General Education Certifications**

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

**Fully General Education Certified**

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

**Category Certification**

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

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

**Transfer to Baccalaureate Institutions**

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

**Transfer Contacts and Services**

There are a number 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
Director of Advising and Retention
1400 College Dr.
Ashland, KY 41101
606-326-2418
sheila.marcum@kctcs.edu

Big Sandy Community and Technical College

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

Transfer Contacts

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

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

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

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

Bluegrass Community and Technical College

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

Transfer Contacts

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

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

Elizabethtown Community and Technical College

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

Transfer Contacts

Mary Byerley-Shetty
Coordinator of Transfer Services
Elizabethtown Community and Technical College
610 College Street Road
Elizabethtown, KY 42701
(270) 706-8751

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

Gateway Community and Technical College

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

Transfer Contacts

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

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

Hazard Community and Technical College

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

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

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

Henderson Community College

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

Transfer Contact

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

Hopkinsville Community College

Transfer Services
Student Transition Center
Main Campus, Technology Center Building

Transfer Contact

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

Jefferson Community and Technical College

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

Transfer Contacts

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

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

Madisonville Community College

Transfer Services
Main Campus, John H Gray Building
Enrollment Center

Transfer Contact

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

Maysville Community and Technical College

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

Transfer Contact

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

Owensboro Community and Technical College

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

Transfer Contacts

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

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

Somerset Community College

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

Somerset Campus

Betty Nichols
Administrative Assistant
Somerset Community College
Stoner Building, Room 102G
808 Monticello Street
Somerset, KY 42501
(606) 451-6630
betty.nichols@kctcs.edu

Laurel Campus

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

Southcentral Kentucky Community and Technical College

Transfer Services
Student Success Center
Main Campus, Building A

Transfer Contacts

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

Denna White
Director of Admissions
Southcentral Kentucky Community and Technical College
1845 Loop Drive
Bowling Green, KY 42101
(270) 901-1094
(800) 790-0990
denna.white@kctcs.edu

Sherita Clark
Success Coach
1845 Loop Drive
Bowling Green, KY 42101
270-901-1242
sherita.clark@kctcs.edu

Southeast Kentucky Community and Technical College

Transfer Services
Transfer Assistance Center

Transfer Contacts

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

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

West Kentucky Community and Technical College

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

Transfer Contact

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

Public University Transfer Contacts

Eastern Kentucky University

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

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

Kentucky State University

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

Morehead State University

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

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

Murray State University

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

Northern Kentucky University

Matt Elrod
Transfer Coordinator
859-572-7524 (800) 637-9948
elrodma@nk.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>Computer Science Principles</td>
<td>3-5</td>
<td>Elective Credit</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>English Literature/Composition</td>
<td>3</td>
<td>ENG 161</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>English Language/Composition</td>
<td>3</td>
<td>ENG 101</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Environmental Science</td>
<td>3</td>
<td>EST 150</td>
<td>4 credit hours</td>
</tr>
<tr>
<td>European History</td>
<td>3</td>
<td>HIS 104 and HIS 105</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>French Language</td>
<td>3</td>
<td>FRE 201</td>
<td>3 credit hours</td>
</tr>
<tr>
<td></td>
<td>4-5</td>
<td>FRE 201 and FRE 202</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>German Language</td>
<td>3</td>
<td>GER 201</td>
<td>3 credit hours</td>
</tr>
<tr>
<td></td>
<td>4-5</td>
<td>GER 201 and GER 202</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>Human Geography</td>
<td>3</td>
<td>GEO 172</td>
<td>3 credit hours</td>
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<tr>
<td>Italian Language and Culture</td>
<td>3</td>
<td>TRN 106***</td>
<td>3 credit hours</td>
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<tr>
<td></td>
<td>4-5</td>
<td>TRN 106 and TRN 107***</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>Japanese Language and Culture</td>
<td>3</td>
<td>JPN 201</td>
<td>3 credit hours</td>
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<tr>
<td></td>
<td>4-5</td>
<td>JPN 201 and JPN 202</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>Course</td>
<td>Credits</td>
<td>Course Code/Title</td>
<td>Hours</td>
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<tr>
<td>Latin: Vergil</td>
<td>3</td>
<td>TRN 106***</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>4-5</td>
<td>TRN 106 and 107***</td>
<td>6</td>
</tr>
<tr>
<td>Microeconomics</td>
<td>3</td>
<td>ECO 201</td>
<td>3</td>
</tr>
<tr>
<td>Macroeconomics</td>
<td>3</td>
<td>ECO 202</td>
<td>3</td>
</tr>
<tr>
<td>Music Theory</td>
<td>3</td>
<td>MIS 174</td>
<td>3</td>
</tr>
<tr>
<td>Physics 1</td>
<td>3</td>
<td>PHY 201*</td>
<td>4</td>
</tr>
<tr>
<td>Physics 2</td>
<td>3</td>
<td>PHY 203*</td>
<td>4</td>
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<tr>
<td>Psychology</td>
<td>3</td>
<td>PSY 110</td>
<td>3</td>
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<tr>
<td>Spanish Language</td>
<td>3</td>
<td>SPA 201</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>4-5</td>
<td>SPA 201 and 202</td>
<td>6</td>
</tr>
<tr>
<td>Spanish Literature</td>
<td>3</td>
<td>TRN 110 (humanities)***</td>
<td>3</td>
</tr>
<tr>
<td>Statistics</td>
<td>3</td>
<td>STA 220</td>
<td>3</td>
</tr>
<tr>
<td>Studio Art 2-D</td>
<td>3</td>
<td>ART 112</td>
<td>3</td>
</tr>
<tr>
<td>Studio Art 3-D</td>
<td>3</td>
<td>ART 113</td>
<td>3</td>
</tr>
<tr>
<td>Studio Art – Drawing</td>
<td>3</td>
<td>ART 110</td>
<td>3</td>
</tr>
<tr>
<td>US Government &amp; Politics</td>
<td>3</td>
<td>POL 101</td>
<td>3</td>
</tr>
<tr>
<td>US History</td>
<td>3</td>
<td>HIS 108 and HIS 109</td>
<td>6</td>
</tr>
<tr>
<td>World History</td>
<td>3</td>
<td>HIS 101</td>
<td>3</td>
</tr>
</tbody>
</table>

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

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

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

American Council on Education

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

Articulation Agreements

Articulation agreements provide a mechanism to accept and award credit for courses that will transfer toward a credential. Articulation agreements specify the terms and conditions for courses taken at other institutions that will apply to a KCTCS credential, and/or the terms and conditions for courses taken at KCTCS that will apply to credentials or degree programs at other institutions. In either case, the award of applicable credit to the credential is subject to the specific terms of each agreement and all requirements specified in the agreement must be met before credit can be awarded. For information about articulation agreements for KCTCS credentials, contact the college Student Records Office. 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>
<th>Suggested KCTCS Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Communications – 3 credits</td>
<td>OST 235 Business Communications (3)</td>
</tr>
<tr>
<td>Records Management 3 credits</td>
<td>OST 160 Records and Database Management (3)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part III – Management</th>
<th>Suggested KCTCS Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management &amp; Supervision – 4 credits</td>
<td>BAS 283 – Principles of Management (3)</td>
</tr>
<tr>
<td>Human Resource Management – 3 credits</td>
<td>BAS 274 – Human Resource Management (3)</td>
</tr>
<tr>
<td>Accounting – 1 credit</td>
<td>ACT 101 – Fundamentals of Accounting</td>
</tr>
</tbody>
</table>

**Recommended credit total:** 20 Total credit: 21

**Child Development Associate**

After successfully completing one three credit hour IEC course, a student enrolled in the IEC program who holds a current Child Development Associate (CDA) credential from the Council for Professional Recognition will be granted credit for IEC 101, 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.

**Guidelines for CLEP General Examinations**

<table>
<thead>
<tr>
<th>CLEP Subject Examination</th>
<th>Scaled Score to Earn Credit</th>
<th>Equivalent Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign Languages</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>College Level French Language</td>
<td>50-69</td>
<td>FRE 201</td>
<td>3</td>
</tr>
<tr>
<td></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>
</tbody>
</table>

*History and Social Sciences*

| American Government                  | 50                          | POL 101           | 3            |
| History of the United States I       | 50                          | HIS 108           | 3            |
| History of the United States II      | 50                          | HIS 109           | 3            |
| Introductory Psychology              | 50                          | PSY 110           | 3            |
| Principles of Macroeconomics         | 50                          | ECO 202           | 3            |
| Principles of Microeconomics         | 50                          | ECO 201           | 3            |
| Introductory Sociology               | 50                          | SOC 101           | 3            |
| Western Civilization I: Ancient Near East to 1648 | 50                          | HIS 104           | 3            |
| Western Civilization II: 1648 to the Present | 50                          | HIS 105           | 3            |
| Social Sciences and History          | 50                          | SOC 101           | 3            |
| Human Growth and Developmental       | 50                          | AHS 100           | 2            |
| Science and Mathematics              |                             |                   |              |
| Calculus                             | 50                          | MAT 174 or MAT 175| 4, 5         |
| College Mathematics                  | 50                          | MAT 146           | 3            |

**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>Course</th>
<th>Score</th>
<th>Credit Awarded</th>
<th>Credit Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Algebra</td>
<td>50</td>
<td>MAT 150</td>
<td>3</td>
</tr>
<tr>
<td>Pre-calculus</td>
<td>50</td>
<td>MAT 160</td>
<td>5</td>
</tr>
<tr>
<td>Biology</td>
<td>50-59</td>
<td>BIO 112</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>60-64</td>
<td>BIO 120, BIO 112</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>65-80</td>
<td>BIO 150, 152</td>
<td>6</td>
</tr>
<tr>
<td>General Chemistry</td>
<td>50 or above</td>
<td>CHE 170, 180</td>
<td>6</td>
</tr>
<tr>
<td>Natural Science</td>
<td>50</td>
<td>BIO 112</td>
<td>3</td>
</tr>
</tbody>
</table>

**Business and Computer Applications**

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

**English and Humanities**

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

**Guidelines for Internaional Baccalaureate (IB)**

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

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

**Industry Standard Certification Examinations**

**Military Service Experience**

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

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

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

Special Exam: STEP or Challenge
Institutionally developed and administered exams provide an opportunity to demonstrate mastery of course content and receive credit toward program requirements. The student must be accepted for admission and enrolled in the 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 the programs that offer academic credit for degree-related work experience during a specific semester. The experiences and credit awarded vary according to the program’s requirements. These experiences must be planned and supervised by the college and the employer to ensure that the work experience contributes to the student’s education and career objective. The cornerstone of Work Based Learning is Cooperative Education. Other programs that are considered part of Work Based Learning are Internships, Practicums, and Experiential Learning. These courses afford the student a unique opportunity to integrate formal classroom training with supervised work experience.

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

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

Modularized Credit Courses
Some KCTCS courses are available in a modularized credit format allowing students to register for courses that are components of the full (or “parent”) course. For example, BAS 212 may be taken as a three credit course or students may enroll in BAS 2121, BAS 2122, and BAS 2123 as separate courses which are the equivalent of BAS 212. The sum of the modular credit courses is equal to the full course. The student transcript will display the modularized credit course in the term the student earned the credit and once all components of the full course are earned, the full course will appear on the transcript. Modular Credit Courses are designated as a four digit number. The first three digits are those of the parent course. The last digit is the number of the modular credit segment/component, e.g., XXX 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 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 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 the college for at least one 16-week semester and providing evidence of ability to perform at the level required. A student who has been academically suspended shall, upon reinstatement, be placed on academic probation and be subject to academic suspension if the student has failed to earn a current term GPA of 2.0 during the first term of reinstatement. Upon a second suspension, a student may be reinstated by the president (or designee) after remaining out of the college for at least two 16-week semesters and providing evidence of ability to perform at the level required.

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

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

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

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

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

Policies Related to Graduation

Graduation Requirements
For the Associate in Arts, Associate in Science, Associate in Fine Arts, and Associate in Applied Science degrees, regardless of the time the student has attended the college, at least 25 percent of the approved curriculum credits must be completed at the KCTCS college granting the degree. For a certificate or diploma, the KCTCS college will grant credentials from its approved program inventory when a minimum of 25 percent of the required coursework has been completed within KCTCS.

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

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

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

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

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

Kentucky Community and Technical College Guarantee

KCTCS colleges offer employers of graduates the following guarantee:

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

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

Academic Credentials Awarded

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

General Education Component:

<table>
<thead>
<tr>
<th>Core Requirements</th>
<th>AA Credit Hours</th>
<th>AS Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written Communications</td>
<td>6 credit hours</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>Students who complete ENG 105 must take an additional 3 credit hours of General Education from any of the General Education categories</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral Communications</td>
<td>3 credit hours</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Arts and Humanities</td>
<td>6 credit hours</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>One course must be selected from Humanities and one course from Heritage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantitative Reasoning</td>
<td>3 credit hours</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>6 credit hours</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>One science course must include a laboratory experience.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social and Behavioral Sciences</td>
<td>9 credit hours</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>Two disciplines must be represented and different from those in the Arts and Humanities category.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantitative Reasoning OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>3 credit hours</td>
<td></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 courses from headings in the Core Categories and/or Foreign Language (see pages 74 - 76). At least 6 credit hours must be selected from Arts and Humanities and/or Social and Behavioral Sciences and/or Foreign Language. Students are advised to choose hours to satisfy pre-major requirements at the institution to which they are transferring.

Associate in Science Requirements: 12 credit hours

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

Electives: 15 credit hours

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

Total Credit Hours: 60 Credit Hours

Graduate 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. 2 Courses chosen to satisfy General Education requirements must be selected from an approved list which may be found in the KCTCS catalog.

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

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

Associate in Fine Arts (AFA)

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

General Education Component:

| Written and Oral Communications | 9 credit hours |
| Written and Oral Communications |
| Students who complete ENG 105 must take an additional 3 credit hours of General Education from any of the General Education categories |
| Quantitative Reasoning | 3 credit hours |
| Natural Sciences | 3 credit hours |
| The course chosen to satisfy this requirement must be from a discipline other than the discipline in the Fine Arts Core and/or concentration. |
| Quantitative Reasoning |
| Natural Sciences |
| Must include a laboratory experience for general education certification in the Natural Sciences category. |
| Social and Behavioral Sciences | 6 credit hours |
| Total General Education | 24 credit hours |

Fine Arts Core

Sub-Total | 18 credit hours |

Concentration

Sub-Total | 18 credit hours |

Total | 60 credit hours |

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

1 Courses chosen to satisfy General Education requirements must be selected from an approved list which may be found in the KCTCS catalog. 2 Courses chosen to satisfy General Education requirements must be selected from an approved list which may be found in the KCTCS catalog.

Transitional courses (courses numbered 001-099) cannot be used to satisfy graduation requirements.
Associate in Applied Science (AAS)

General education component  15
A student must complete a minimum of 15 credit hours to fulfill the general education requirement. General education credits must meet the following distribution:
- Quantitative Reasoning  3 credit hours
- Natural Sciences  3 credit hours
- Social/Behavioral Sciences  3 credit hours
- Heritage/Humanities  3 credit hours
- Written Communication  3 credit hours

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

Technical and Support Component  45 - 53
General Education and Technical and Support Components must be distributed so that programs do not exceed 68 credit hours.

Total Credit Hours  60 - 68
AAS degree programs should incorporate multiple exit points, i.e. awarding certificates and diplomas, when possible.

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

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

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

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

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

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

Technical & Support*
30 - 54

Total Credit Hours
36 - 60

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

Graduation requirements include (1) Minimum cumulative GPA of 2.0, (2) demonstration of digital literacy, and (3) minimum of 25% of diploma requirements earned 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 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
5200 Alben Barkley Drive
Paducah, KY 42002-8227
(800#) 888-306-7901
charles.lott@kctcs.edu
Counties: Ballard, Calloway, Carlisle, Fulton, Graves, Hickman, Livingston, Marshall, McCracken

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

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

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

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

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

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

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

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

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

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

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

Somerset Community College (Area 14)
Josh Whitis, Coordinator
219 Industry Dr
Jamestown, KY 42629
(606) 219-2243
josh.whitis@kctcs.edu
Counties: Adair, Casey, Clinton, Cumberland, Green, McCreary, Pulaski, Russell, Taylor, Wayne

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

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

General Education Requirements

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

General Education Competencies:

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

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

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

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

D. Integrative and applied learning, including synthesis and advanced accomplishment across general and specialized skills.
Written Communication
Diploma  TEC 200 Technical Communications
OST 108 Editing Skills for Office Professionals
Any Writing course approved for the AAS, AA, or AS

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

Oral Communications
Diploma, AAS, AA, AS, AFA
COM 181 Basic Public Speaking ........................................3
COM 205 Business and Professional Communications ........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
PHI 250 Symbolic Logic ................................................3
Any mathematics course listed below

AS
MAT 150 College Algebra ................................................3
MAT 154 Trigonometry ....................................................2
MAT 155 Trigonometry ....................................................2
MAT 159 Analytic Geometry and Trigonometry .................4
MAT 160 Precalculus ......................................................5
MAT 165 Finite Mathematics and its Applications ..........3
MAT 170 Brief Calculus with Applications .......................3
MAT 174 Calculus I .........................................................4
MAT 175 Calculus I .........................................................4
MAT 184 Calculus II .........................................................5
MAT 185 Calculus II .........................................................5
MAT 206 Mathematics for Elementary and Middle School Teachers II .........................................................3

MAT 261 Introduction to Number Theory .........................3
MAT 275 Calculus III .......................................................4
MAT 285 Differential Equations .......................................3
STA 210 Statistics: A Force in Human Judgment .............3
STA 220 Statistics ........................................................3

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

AAS, AA, AFA, AS
ANA 209 Principles of Human Anatomy ..........................3
AST 101 Frontiers of Astronomy ......................................3
AST 155/BIO 155 Astrobiology .......................................3
AST 191 The Solar System ...............................................3
AST 192 Stars, Galaxies, and the Universe ......................3
AST 195 Introductory Astronomy Laboratory* ................3
BIO 112 Introduction to Biology ....................................3
BIO 113 Introduction to Biology Lab*...............................3
BIO 114 Major Discoveries in Biology .............................3
BIO 115 Biology Laboratory I* ........................................3
BIO 116 Biology II ........................................................3
BIO 117 Biology Laboratory II* ....................................3
BIO 118 Microbes and Society ....................................3
BIO 120 Human Ecology ................................................3
BIO 121 Introduction to Ecology Laboratory* ..................3
BIO 122 Introduction to Conservation Biology ..................3
BIO 124 Principles of Ecology .......................................3
BIO 130 Aspects of Human Biology .................................3
BIO 135 Basic Anatomy and Physiology .........................4
BIO 137 Human Anatomy and Physiology I* ....................4
BIO 139 Human Anatomy and Physiology II* ....................4
BIO 140 Botany ............................................................3

BIO 141 Botany with Laboratory* ....................................4
BIO 142 Zoology ..........................................................3
BIO 143 Zoology with Laboratory* ..................................4
BIO 144 Insect Biology ..................................................3
BIO 150 Principles of Biology I ......................................3
BIO 151 Principles of Biology Laboratory I* .....................3
BIO 152 Principles of Biology II .....................................3
BIO 153 Principles of Biology Laboratory II* .................3
BIO 155/AST 155 Astrobiology .......................................3
BIO 209 Introductory Microbiology Lab* .......................3
BIO 210 The Genetic Perspective ....................................3
BIO 225 Medical Microbiology ....................................4
BIO 226 Principles of Microbiology ...............................3
BIO 227 Principles of Microbiology with Laboratory* ....5
CHE 120 Chemistry in Society ....................................3
CHE 125 The Joy of Chemistry Laboratory* ....................3
CHE 130 Introductory General and Biological Chemistry* ....3
CHE 140 Introductory General Chemistry ....................3
CHE 145 Introductory General Chemistry Laboratory* .......3
CHE 150 Introduction to Organic and Biological Chemistry* ...3
CHE 155 Intro to Organic and Biological Chemistry Laboratory* 3
CHE 170 General College Chemistry I ............................4
CHE 175 General College Chemistry Laboratory I* ..........4
CHE 180 General College Chemistry II ............................4
CHE 185 General College Chemistry Laboratory II* ..........4
CHE 220 Analytical Chemistry* ...................................3
CHE 270 Organic Chemistry I .......................................3
CHE 275 Organic Chemistry Laboratory I* ......................2
CHE 280 Organic Chemistry III ......................................3
CHE 285 Organic Chemistry Laboratory II* .....................2
EST 150 Introductory Ecology* ....................................4
EST 160 Hydrological Geology ......................................3
GEO 130 Earth’s Physical Environment .........................3
GEO 251 Weather and Climate ....................................3
GLY 101 Physical Geology ............................................3
GLY 102 Historical Geology ........................................3
GLY 110 Environmental Geology ................................3
GLY 111 Laboratory for Physical Geology* ....................1
GLY 112 Laboratory for Historical Geology* ..................1
GLY 114 Environmental Geology Laboratory* .................1
GLY 125 Geology of the National Parks & Monuments .....3
GLY 130 Dinosaurs and Disasters: A Brief History of the Vertebrates ........................................3
GLY 131 Dinosaur Laboratory* ....................................1
GLY 220 Principles of Physical Geology* .......................4
PHY 151 Introductory Physics I ....................................3
PHY 152 Introductory Physics II ....................................3
PHY 160 Physics and Astronomy for Elementary Teachers* ....3
PHY 161 Introductory Physics Laboratory I* ....................1
PHY 162 Introductory Physics Laboratory II* ..................1
PHY 171 Applied Physics* ............................................4
PHY 172 Physics for Health Science* .............................2
PHY 201 College Physics I .............................................4
PHY 202 College Physics II ..........................................4
PHY 204 College Physics Lab II* ................................3
PHY 231 General University Physics I ............................4
PHY 232 General University Physics II ............................4
PHY 241 General University Physics I Laboratory* ...........4
PHY 242 General University Physics II Laboratory* ..........4
SCI 295 Scientific Investigations ..................................3

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

Social and Behavioral Sciences
Diploma  EFM 100 Personal Financial Management .............3
WPP 200 Workplace Principles .....................................3
Any Social Interaction course approved for the AAS, AA, AS, or AFA

AAS, AA, AS, AFA
AGR 101 The Economics of Food and Agriculture ............3
ANT 101 Introduction to Anthropology ..........................3
ANT 130/REL 130 Introduction to Comparative Religion ....3
ANT 160 Cultural Diversity in the Modern World ............3
ANT 220 Introduction to Cultural Anthropology ..........3
ANT 221 Native People of North America .....................3

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FLK 276 Introduction to Folk Studies ................................... 3
ANT 241 Origins of Old World Civilizations.................................... 3
ANT 242 Origins of New World Civilizations .................................. 3
COM 101 Introduction to Communications ................................. 3
COM 249 Mass Media Communication ........................................3
COM 254 Intro to Intercultural Communications ............................ 3
ECO 101 Contemporary Economic Issues .................................... 3
ECO 150 Introduction to Global Economics .................................. 3
ECO 201 Principles of Microeconomics ....................................... 3
ECO 202 Principles of Macroeconomics ..................................... 3
FAM 252 Introduction to Family Science .......................................3
FAM 253 Human Sexuality: Development, Behavior, and Attitudes .......... 3
FLK 280 Cultural Diversity in the US ........................................3
GEN 140 Development of Leadership ........................................3
GEN 225 Lifelong Learning Applications .................................... 3
GEO 152 Regional Geography of the World ................................... 3
GEO 160 Lands and Peoples of the Non-Western World .................. 3
GEO 172 Human Geography ..................................................3
GEO 210 Pollution, Hazards and Environmental Management .......... 3
GEO 223 Cities of the Worlds ..................................................3
GEO 240 Geography and Gender ..............................................3
HUM 135 Introduction to Native American Literature ........................3
HUM 202 Survey of Appalachian Studies I ..................................3
HUM 203 Survey of Appalachian Studies II ..................................3
HUM 204 Appalachian Seminar ..............................................3
HUM 221 Contemporary Perspectives on Peace and War ................. 3
POL 101 American Government ...............................................3
POL 210 Introduction to European Politics: East and West ............. 3
POL 212 Culture and Politics in the Third World ............................3
POL 235 World Politics ....................................................... 3
POL 255 State Government ....................................................3
PSY 110 General Psychology ................................................3
PSY 180 Human Relations ........................................................3
PSY 230 Psychosocial Aspects of Death and Dying ...................... 3
PSY 223 Developmental Psychology .........................................3
PSY 297 Psychology of Aging .................................................3
PSY 298 Essentials of Abnormal Psychology ................................ 3
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 Media, Society, and Culture ....................................... 3
SOC 260 Population, Resources and Change ................................ 3
SPA 115 Hispanic Culture: (Country or Region) .......................... 3
SUS 101 Introduction to Sustainability ..................................... 3
SUS 102 Sustainable Built Environment ................................... 3
SUS 201 Sustainable Societies ...............................................3
SUS 202 Sustainable Urban Systems ........................................3
SWK 275 The Family .............................................................3
WGS 200 Introduction to Women’s and Gender Studies in the Social Sciences ..................................................3
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 1914 45 ........................................3
HIS 202 History of British People to the Restoration .....................3
HIS 203 History of British People Since the Restoration ................3
HIS 206 History of Colonial Latin America ................................3
HIS 207 History of Modern Latin America, 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 285 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 282 International Film Studies ..............................3
FLK 276 Introduction to Folk Studies .......................................3
GEN 125 Applied Meta-Thinking .............................................3
HNR 101 Introduction to Contemporary Thought ..........................3
HON 101 The Ancient World .................................................3
HON 102 The Medieval and Renaissance World ...........................3
HON 201 The Early and Modern World .....................................3
HON 202 The Contemporary World .........................................3
HRS 101 An Integrated Survey of Western Civilization I ..................3
HRS 102 An Integrated Survey of Western Civilization II ................3
HRS 201 An Integrated Survey of Western Civilization III .............3
HRS 202 An Integrated Survey of Western Civilization IV .............3
HUM 120 Introduction to the Humanities ....................................3
HUM 201 World History Through the Mid-Seventeenth Century ........3
HUM 255 World History Through the Nineteenth Century .............3
HUM 271 Medieval Europe .....................................................3
HUM 275 The Family .............................................................3
HUM 285 East Asia to 1800 .....................................................3
HUM 296 History of Asia II ......................................................3
HUM 297 Psychology of Aging .................................................3
HUM 298 Essentials of Abnormal Psychology ................................3
HUM 299 Modern Social Problems ............................................3
HUM 301 Sustainable Urban Systems ........................................3
HUM 302 Sustainable Societies ...............................................3
HUM 303 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 Mid-Seventeenth Century 3
HIS 105 A History of Europe from the Mid-Seventeenth Century to the Present ..................................................3
HIS 106 Western Culture: Science and Technology I ....................3
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

- AN 130/REL 130 Introduction to Comparative Religion
- AN 160 Cultural Diversity in the Modern World
- AN 220 Introduction to Cultural Anthropology
- AN 221 Native People of North America
- AN 235 Food and Culture
- AN 240 Introduction to Anthropology
- AN 241 Origins of Old World Civilizations
- AN 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
- HUM 203 Survey of Appalachian Studies II
- HUM 204 Appalachian Seminar
- POL 212 Culture and Politics in the Third World
- POL 235 World Politics
- PSY 230 Psychosocial Aspects of Death and Dying
- RAE 120 Introduction to Chinese Culture

### Other Degree and/or Credential Requirements

#### Cultural Studies Courses

- **HUM 202 Survey of Appalachian Studies I**
- **HUM 251 Appalachian Literature Survey**
- **HUM 250 Appalachian Literature Survey**
- **MU 101 Folk and Traditional Music of the Western Continents**
- **MUS 100 Introduction to Music**
- **MUS 104 Introduction to Jazz History**
- **MUS 206 American Music**
- **MUS 207 African American Music History**
- **MUS 208 World Music**
- **MUS 222 History and Sociology of Rock Music**
- **PHI 100 Introduction to Philosophy: Knowledge and Reality**
- **PHI 110 Medical Ethics**
- **PHI 120 Introductory Logic**
- **PHI 130 Ethics**
- **PHI 140 The Ethics of War and Peace**
- **PHI 150 Business Ethics**
- **PHI 160 Philosophy Through Pop Culture**
- **PHI 170 Philosophy of Religion**
- **PHI 180 Animal and Environmental Ethics**
- **PHI 200 Professional Responsibility**
- **PHI 260 History of Philosophy I: From Greek Beginnings to the Middle Ages**
- **PHI 270 History of Philosophy II: From the Renaissance to the Present Era**
- **REL 101 Introduction to Religious Studies**
- **REL 120 Introduction to the Old Testament**
- **REL 121 Introduction to the New Testament**
- **REL 130 Introduction to Comparative Religion**
- **REL 150 Comparative Ethics of Major World Religions**
- **REL 170 Philosophy of Religion**
- **THA 101 Introduction to Theatre: Principles and Practices**
- **THA 200 Introduction to Dramatic Literature**
- **THA 283 American Theatre**
- **WGS 201 Introduction to Women's and Gender Studies in the Arts and Humanities**

1. A student may not receive credit for both AN 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

- **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**
- **JPN 201 Beginning Japanese I**
- **JPN 202 Beginning Japanese II**
- **RAE 120 Introduction to Chinese Culture**
- **SPA 101 Elementary Spanish I** (spoken approach)
- **SPA 102 Elementary Spanish II** (spoken approach)
- **SPA 201 Intermediate Spanish I**
- **SPA 202 Intermediate Spanish 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 250 Appalachian Literature Survey**
- **HUM 251 Contemporary Appalachian Literature**
- **MLI 101 Folk and Traditional Music of the Western Continents**

### Academic Services

- **GEO 160 Lands and Peoples of the Non-Western World**
- **HUM 135 Introduction to Native American Literature**
- **HUM 202 Survey of Appalachian Studies**
- **HUM 203 Survey of Appalachian Studies II**
- **HUM 204 Appalachian Seminar**
- **POL 212 Culture and Politics in the Third World**
- **POL 235 World Politics**
- **PSY 230 Psychosocial Aspects of Death and Dying**
- **RAE 120 Introduction to Chinese Culture**
- **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**

### Arts and Humanities

- **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 250 Appalachian Literature Survey**
- **HUM 251 Contemporary Appalachian Literature**
- **MLI 101 Folk and Traditional Music of the Western Continents**
Digital Literacy

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

- CAD 103 CAD Fundamentals ............................................. 4
- CIT 105 Introduction to Computing ..................................... 3
- DLT 100 Digital Literacy ................................................ 3
- DPT 100 Introduction to 3D Printing Technology ................. 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.

Employment and Earnings Information

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

Admission to Programs

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

KCTCS College Codes

ACTC Ashland Community and Technical College
BLC Bluegrass Community and Technical College
BSC Big Sandy Community and Technical College
ECTC Elizabethtown Community and Technical College
GTW Gateway Community and Technical College
HZC Hazard Community and Technical College
HEC Henderson Community College
HPC Hopkinsville Community College
JFC Jefferson Community and Technical College
MDC Madisonville Community College
MYC Maysville Community and Technical College
OWC Owensboro Community and Technical College
SMC Somerset Community College
SKY Southcentral Kentucky Community and Technical College
SEC Southeast Kentucky Community and Technical College
WKCTC West Kentucky Community and Technical College
Kentucky Community and Technical College System’s (KCTCS) sixteen colleges deliver quality online courses and programs through two ways to learn: Learn by Term and Learn on Demand http://kctcs.edu/Degrees_Training/KCTCS_Online.

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

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

Additional information about KCTCS Online courses and programs for both Learn on Demand and Learn by Term, including student information, may be viewed at the main KCTCS Online web page http://kctcs.edu/Degrees_Training/KCTCS_Online.

Online Programs

KCTCS Online Learn by Term – Semester-based Online Programs

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

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

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

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

Additional information about KCTCS Online courses and programs for both Learn on Demand and Learn by Term, including student information, may be viewed at the main KCTCS Online web page http://kctcs.edu/Degrees_Training/KCTCS_Online.

KCTCS Online Learn by Term

Current List of Semester-based Online Programs:

Degree

Associate in Arts

Associate in Science

Associate in Applied Science:

Administrative Office Technology

– Administrative Track

– Financial Assistant Track

– Desktop Publishing Track

Business Administration Systems

– Accounting Track

– Business Management Track

– Equine Business Management Track

– Finance Track

– Hospitality Management Track

– Human Resource Management Track

– Informatics Track

– Management Track

– Marketing & Retailing Track

– Office Systems Track

– Telecommunication Systems Management Track

– Turf Grass/Landscaping Management Track

Computer & Information Technologies

– Applications Track

– Computer Science Track

– Information Security Track

– Internet Technologies Track

– Network Administration Track

– Networking Technologies Track

– Programming Track

Criminal Justice

– Corrections Track

– Criminal Justice Track

– Law Enforcement Track

– Security and Loss Prevention Track

Energy Management

– Energy Management Track

General Occupational/Technical Studies

– General Occupational/Technical Studies Track

Healthcare Facilities Leadership

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

Human Services
- Human Services Track

Information Management and Design
- Library Information Technology Track

Logistics & Operation Management
- Logistics & Operations Management Track

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

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

Mining Technology
- Engineering Operations Track
- Supervisor Track

Paralegal Technology
- Paralegal Technology Track

Quality Management Systems
- Quality Management Systems Track

**Diplomas**

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

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

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

**Energy Management**
- Energy Management

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

**Visual Communication**
- Digital Production Artist

**Certificates**

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

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

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

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

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

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

Digital Game and Simulation Design
– Digital Game and Simulation Design

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

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

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

Human Services
– Direct Support Work

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

Logistics & Operations Management
– Logistics Management

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

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

Minerals Technology
– Mining Technician I

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

Paralegal Technology
– Paralegal Technology

Quality Management Systems
– Quality Leader
– Quality Monitor

– Quality Specialist I
– Quality Support

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

KCTCS Online Learn on Demand Programs

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

Degree

Associate in Arts

Associate in Science

Business Administration
– Human Resources Management Track
– Management Track

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

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

Logistics and Operations Management
– Logistics and Operations Management Track

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

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

Business Administration Systems
  – Organizational Leadership
  – Small Business Management

Medical Information Technology
  – Medical Administrative Assistant
  – Medical Records Specialist

Certificate

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

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

Criminal Justice
  – Computer Forensics

Logistics and Operations Management
  – Logistics Management

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

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

Nursing
  – Medicaid Nurse Aide (NAA/MNA)

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

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

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

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

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

Gainful Employment Information

Some programs are considered by the U.S. Department of Education to be “Gainful Employment” programs. Important information about program length, cost, loan debt, graduates, and related occupations can be found on each 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

(Offered at MDC)

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

Total Credits 19

Advanced Integrated Technology

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

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

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

Associate in Applied Science

Advanced Integrated Technology - 1504997019

(Offered at MDC)

Required General Education:

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>MAT 126</td>
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<tr>
<td>MAT 150</td>
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<td>PHY 151</td>
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<td>ENG 105</td>
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Subtotal 16

Technical Core:

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<td>AIT 100</td>
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<tr>
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Subtotal 28

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

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Subtotal 60

Total

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

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<tr>
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<th>AIT 100 Refraction Fundamentals ........................................... 2</th>
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<tr>
<td></td>
<td>AIT 101 Refraction Fundamentals Lab ................................ 1</td>
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<td>IMT 100 Welding for Maintenance ...................................... 3</td>
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<th>AIT 140 Industrial Controls I .............................................. 4</th>
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<td>AIT 150 Industrial Controls II ............................................ 4</td>
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<td>AET 190 Industrial Computer Programming Concepts ........................ 4</td>
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<th>AIT 100 Power Generation and Utilization ....................................... 4</th>
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<td>AIT 110 Power Distribution Systems ................................................ 3</td>
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<td>AIT 1203 Mechanical Installation ................................................ 1</td>
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<td>ACR 102 HVAC Electricity .......................................................... 3</td>
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<th>Multi-Skilled Maintenance Apprenticeship – 1504993150</th>
<th>AIT 1001 Basic Electrical Knowledge ........................................... 2</th>
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<tr>
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<td>AIT 1003 Hydraulic/Pneumatic Fundamentals .................................. 1</td>
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<td>AIT 1101 Electrical Power Distribution .................................... 1</td>
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<td>AIT 1102 Fluid Power Distribution ............................................... 2</td>
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<td>AIT 1201 Electrical Installation ................................................ 1</td>
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<td>AIT 1202 Piping, Pneumatic, &amp; Installation ..................................... 1</td>
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<td>AIT 1203 Mechanical Installation ................................................ 1</td>
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<td>AIT 1301 Principles of Instrumentation ........................................ 1</td>
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<td>AIT 1302 Integrated Process Control ............................................ 2</td>
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<td>AIT 1401 Basic Electrical Controls ............................................... 2</td>
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<td>AIT 1402 Basic Pneumatic Controls ................................................ 1</td>
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<td>AIT 1501 Intermediate Electrical Controls ...................................... 2</td>
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<td>AIT 1502 Intermediate Pneumatic Controls ......................................... 1</td>
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<td>AIT 1503 Intermediate Hydraulic Controls ....................................... 1</td>
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<td>AIT 160 Workplace Safety ............................................................. 1</td>
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<td>AIT 2101 Predictive/Preventive Maintenance and Lubrication ................... 1</td>
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<td>IMT 100 Welding for Maintenance .................................................... 3</td>
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<td>IMT 101 Welding for Maintenance Lab ................................................ 2</td>
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</table>

### 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.

<table>
<thead>
<tr>
<th>Fundamentals of Advanced Manufacturing &amp; Mechatronics - 1506133089</th>
<th>MFG 102 Certified Production Technician ........................................... 4-6</th>
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<tbody>
<tr>
<td></td>
<td>CTT 105 Introduction to Computers .................................................... 3</td>
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<td>ELT 110 Circuits I .................................................................................. 5</td>
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<td>MFG 125 Fundamentals of Mechatronics A .................................................. 3</td>
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<td>MFG 130 Fundamentals of Mechatronics B .................................................. 3</td>
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<table>
<thead>
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<th>Fundamentals of Advanced Manufacturing &amp; Machining - 1506133099</th>
<th>MFG 102 Certified Production Technician ........................................... 4-6</th>
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<tbody>
<tr>
<td></td>
<td>CTT 105 Introduction to Computers .................................................... 3</td>
</tr>
<tr>
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<td>CMM 110 Fundamentals of Machine Tools A .................................................. 3</td>
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<td>CMM 112 Fundamentals of Machine Tools B .................................................. 4</td>
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<td>CMM 118 Metrology Control Charts ........................................................... 2</td>
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### Certificate

**Certificate**

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<tr>
<th>Fundamentals of Advanced Manufacturing &amp; Mechatronics - 1506133089</th>
<th>MFG 102 Certified Production Technician ........................................... 4-6</th>
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<tr>
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<td>CTT 105 Introduction to Computers .................................................... 3</td>
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<tr>
<td></td>
<td>ELT 110 Circuits I .................................................................................. 5</td>
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<td>MFG 125 Fundamentals of Mechatronics A .................................................. 3</td>
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<tr>
<th>Fundamentals of Advanced Manufacturing &amp; Machining - 1506133099</th>
<th>MFG 102 Certified Production Technician ........................................... 4-6</th>
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<td><strong>Total Credits</strong> 16-18</td>
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Fundamentals of Advanced Manufacturing & Quality Control - 1506133110
(Offered at GTW)

MFG 102 Certified Production Technician ........................................ 4-6
CIT 105 Introduction to Computers .................................................... 3
BRX 110 Basic Blueprint Reading for Machinist .................................. 2
BRX 210 Mechanical Blueprint Reading ................................................ 2
CMM 118 Metrology Control Charts ..................................................... 2
QMS 101 Introduction to Quality Systems .............................................. 3
Total Credits 16-18

African American Studies

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

Certificate
African American Studies - 0501013029
(Offered at ELC, JPC)

ENG 101 Writing I ................................................................................. 3
HIS 260 African American History I ..................................................... 3
HIS 261 African American History II .................................................... 3
MUS 207 African American Music History ......................................... 3
ENG 264 Major Black Writers ............................................................. 3
Elective* ......................................................................................... 3
Total Credits 18

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

COM 299 African American Communication ..................................... 3
ANT 160 Cultural Diversity in the Modern World ................................ 3
FLK 280 Cultural Diversity in the United States .................................. 3
SOC 235 Inequality in Society ............................................................. 3
MUS 104 Introduction to Jazz ........................................................... 3
HUM 150 Introduction to African Literature ....................................... 3
REL 101 Introduction to Religious Studies ........................................ 3
REL 130 Introduction to Comparative Religion .................................. 3
ART 104 Introduction to African Art ................................................. 3
TA 299 Special Topics in Theatre ....................................................... 3

Agricultural 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 HPC, 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 Economics of Food and Agriculture ................................... 3
Subtotal 15

Technical Core:
AGR 125 Introduction to Fertilizers and Soils .................................... 3
AGR 150 Agricultural Power .............................................................. 3
AGR 180 Agricultural Internship I ......................................................... 2
AGR 190 Agricultural Internship II .................................................... 2
AGR 240 Introduction to Animal Science .......................................... 3
AGR 250 Introduction to Plants/Crop Production ............................. 3
AGR 280 Livestock Management ...................................................... 3
AGS 115 Agriculture Maintenance ................................................... 3
AGS 205 Forage Management OR .................................................. 3
AGR 140 Issues in Agriculture .......................................................... 3
AGS 215 Weed Management ........................................................... 3
AGS 265 Agriculture Business and Records ...................................... 2
AGS 295 Capstone .............................................................................. 1
Subtotal 31-34

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

AGR 260 Introduction to Sustainable Agriculture ............................ 3
AGS 135 Herbaceous Plant Production ........................................... 3
AGS 153 Greenhouse Production ..................................................... 3
AGS 175 Agriculture Marketing and Sales ....................................... 2
AGS 230 Fruit and Vegetable Production ......................................... 3
AGS 275 Value Added Production .................................................. 3
COE 199 Cooperative Education OR .............................................. 2
PRACTUM ....................................................................................... (2)
Track Subtotal 19
Total Credit Hours 65-68

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

AGR 130 Field Applications in Agriculture ....................................... 2
AGR 200 Agricultural Internship III .................................................... 2
AGS 145 Technology in Agriculture ............................................... 3
AGS 230 Field Crop Production ....................................................... 3
AGS 245 Pest Management ............................................................. 3
AGS 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

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Agricultural Technology

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

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

Associate in Applied Science

Agriculture Technology - 0103017019
(Offered at HEC, HPC, MDC)

General Education:

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<th>Course</th>
<th>Title</th>
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Total Credit Hours: 40-43

Agricultural Technology Track – 0103017019
(Offered at HEC, HPC, MDC)

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<td>AGR 170</td>
<td>Introduction to Equipment, Machines, and Engines</td>
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<td>AGR 190</td>
<td>Agricultural Internship II</td>
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<td>Agricultural Internship III</td>
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<tr>
<td>AGR 220</td>
<td>Computers in the Agricultural Environment</td>
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Subtotal: 15

Total Credits Agricultural Technology Track: 66-67

Sustainable Agriculture Track – 010301702
(Offered at HEC, MDC)

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<td>AGR 260</td>
<td>Introduction to Sustainable Agriculture</td>
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<td>AGR 270</td>
<td>Introduction to Organic Agriculture</td>
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<td>BAS 160</td>
<td>Introduction to Business</td>
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<td>BAS 282</td>
<td>Principles of Marketing</td>
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Subtotal: 15

Total Credits Sustainable Agriculture Track: 66-67

Diploma

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

General Education Courses:
Written Communication, Oral Communications, or Humanities/Heritage: 3

Agriculture Technology - 0103014019

General Education:

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<tr>
<td>BIO 112</td>
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<td>Biology 1 Lab* OR</td>
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<td>BIO 143</td>
<td>Zoology with Laboratory* OR</td>
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<tr>
<td>BIO 150</td>
<td>Principles of Biology 1* AND</td>
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<tr>
<td>CHE 130</td>
<td>Introductory General and Biological Chemistry OR</td>
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<td>CHE 145</td>
<td>Introductory General Chemistry Lab I OR</td>
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Subtotal: 26-27

Total Credits: 41

Technical Courses:

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<td>AGR 130</td>
<td>Field Applications in Agriculture</td>
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<tr>
<td>AGR 140</td>
<td>Issues in Agriculture</td>
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<td>AGR 180</td>
<td>Agricultural Internship I</td>
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<td>AGR 230</td>
<td>Career Development in Agriculture</td>
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<td>ASC 106</td>
<td>Agriculture Animal Science</td>
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<td>AGR 250</td>
<td>Introduction to Plants/Crop Production</td>
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Subtotal: 25

Total Credits: 24

Certificates

Agricultural Technician - 0103013009
(Offered at HEC, HPC, HZC, MDC)

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<tr>
<td>AGR 140</td>
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<td>AGR 150</td>
<td>Agricultural Power</td>
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<td>AGR 230</td>
<td>Career Development in Agriculture</td>
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<td>AGR 180</td>
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<td>AGR 125</td>
<td>Introduction to Fertilizers and Soils</td>
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<td>AGR 190</td>
<td>Agricultural Internship II</td>
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<td>AGR 170</td>
<td>Introduction to Equipment, Machines, and Engines</td>
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<td>AGR 130</td>
<td>Field Applications in Agriculture</td>
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Subtotal: 15

Total Credits: 41
Digital Literacy .................................................... 0-3

Technical Courses:

Written Communication ............................3 credit hours
Social/Behavioral Sciences  ......................... 3 credit hours
Quantitative Reasoning ..............................3 credit hours

Students enrolled in the Air Conditioning Technology program must
the service and maintenance of Chillers.
and laboratory experiences are designed to promote success in the air
conditioning field.

The Boiler Maintenance Certificate is designed to complement our As-

The Chiller Certificate is designed to complement our Associate in Ap-

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 ASC, BLC, BSC, ELC, GTW, HPC, 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

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, GTM HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

General Education:

Area 1 = Written Communication, Oral Communications, OR

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

Subtotal Credits 6

Digital Literacy course OR

ACR 100 Refrigeration Fundamentals ........................................ 3
ACR 101 Refrigeration Fundamentals Lab ................................... 2
ACR 102 HVAC Electricity AND ............................................... 3
ACR 103 HVAC Electricity Lab OR ........................................... 2
Comparable Electrical Course* ................................................. (4-5)
ACR 130 Electrical Components ............................................... 3
ACR 131 Electrical Components Lab ......................................... 2
ACR 170 Heat Load/Duct Design OR ......................................... 3
ACR 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 270 Heat Pump Application AND .................................... 3
ACR 271 Heat Pump Application Lab OR .................................. 2
ACR 272 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

Technical Courses:

ACR 100 Refrigeration Fundamentals ........................................ 3
ACR 101 Refrigeration Fundamentals Lab ................................... 2
ACR 102 HVAC Electricity AND ............................................... 3
ACR 103 HVAC Electricity Lab OR ........................................... 2
Comparable Electrical Course* ................................................. (4-5)
ACR 130 Electrical Components ............................................... 3
ACR 131 Electrical Components Lab ......................................... 2
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 270 Heat Pump Application AND .................................... 3
ACR 271 Heat Pump Application Lab OR .................................. 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
Comparable Electrical Course* ................................................. (4-5)
ACR 130 Electrical Components ............................................... 3
ACR 131 Electrical Components Lab ......................................... 2
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 261 Heating and Humidification Lab ................................... 2

Total Credits 24-25

Digital Literacy must be demonstrated either by competency exam or by completing a
computer/digital literacy course.
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<td>ACR 102</td>
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<td>ACR 104</td>
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<td>ACR 105</td>
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<td>(4-5)</td>
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**Domestic Air Conditioner and Furnace Installer - 4702013029**

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<td>ACR 102</td>
<td>HVAC Electricity AND</td>
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<td>ACR 103</td>
<td>HVAC Electricity Lab OR</td>
<td>2</td>
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<tr>
<td>ACR 104</td>
<td>Heat Load/Duct Design</td>
<td>3</td>
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<tr>
<td>ACR 105</td>
<td>Cooling and Dehumidification</td>
<td>3</td>
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<tr>
<td>ACR 106</td>
<td>Heating and Humidification Lab</td>
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<td>ACR 107</td>
<td>Heat Pump Application</td>
<td>3</td>
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<td>ACR 108</td>
<td>Heat Pump Application Lab</td>
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<td>ACR 109</td>
<td>Journeyman Preparation</td>
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**Refrigeration Mechanic - 4702013059**

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<td>ACR 102</td>
<td>HVAC Electricity AND</td>
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<td>ACR 103</td>
<td>HVAC Electricity Lab OR</td>
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<td>ACR 104</td>
<td>Electrical Components AND</td>
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<td>ACR 105</td>
<td>Electrical Components Lab OR</td>
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**Boiler Maintenance – 4702013079**

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<td>Refrigeration Fundamentals Lab</td>
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<td>ACR 102</td>
<td>HVAC Electricity AND</td>
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<tr>
<td>ACR 103</td>
<td>HVAC Electricity Lab OR</td>
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<tr>
<td>ACR 104</td>
<td>Boilers</td>
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<td>ACR 105</td>
<td>Commercial HVAC Systems</td>
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**Chiller Maintenance – 4702013089**

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<td>Refrigeration Fundamentals Lab</td>
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<td>ACR 102</td>
<td>HVAC Electricity AND</td>
<td>3</td>
</tr>
<tr>
<td>ACR 103</td>
<td>HVAC Electricity Lab OR</td>
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<td>ACR 104</td>
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<td>ACR 105</td>
<td>Manual N Load Calculation &amp; Design</td>
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**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>
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<tr>
<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>
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<td>ACR 103</td>
<td>HVAC Electricity Lab OR</td>
<td>2</td>
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<tr>
<td>ACR 104</td>
<td>Electrical Components AND</td>
<td>(3)</td>
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<td>ACR 105</td>
<td>Electrical Components Lab OR</td>
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<tr>
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<td>Comparable Electrical Course*</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 291</td>
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<td>ACR 295</td>
<td>Special Problems III</td>
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<td>ACR 298</td>
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<td>ACR 299</td>
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<tr>
<td>BAS 160</td>
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<td>F PX 100</td>
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<td>ETT 114</td>
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<td>Fiber Optics Systems</td>
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<td>Electrical Motor Controls II and PLCs</td>
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<td>Electrical Motor Controls II and PLCs Lab</td>
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<td>BRX 220</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>
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<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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<tr>
<td>ET 119</td>
<td>Introduction to Computer-Aided Manufacturing</td>
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<tr>
<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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<td>ELT 124</td>
<td>Mechanical Power Transmission Systems Lab</td>
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<td>ELT 201</td>
<td>Statics and Strength of Materials</td>
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<td>Devices I</td>
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<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>Electric Power Distribution</td>
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<td>Electrical Machinery and Controls</td>
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<td>ELT 250</td>
<td>Programmable Logic Controllers</td>
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<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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<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>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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<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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<td>WLD 152</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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<td>WLD 110</td>
<td>Cutting Processes</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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<td>PLB 100</td>
<td>Basic Theory of Plumbing</td>
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<tr>
<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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<td>PLB 151</td>
<td>Basic Plumbing Skills</td>
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</table>

**Appalachian Studies**

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

**Certificate**

**Appalachian Studies - 0501223069**

(Offered at ASC, SEC)

<table>
<thead>
<tr>
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<th>Title</th>
<th>Credits</th>
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<td>Survey of Appalachian Studies I</td>
<td>3</td>
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<tr>
<td>HUM 203</td>
<td>Survey of Appalachian Studies II</td>
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<td>HUM 204</td>
<td>Appalachian Seminar</td>
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Subtotal 9

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**Communication Track - 050122301**

(Offered at ASC, SEC)

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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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<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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<tr>
<td>MIU 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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<td>BIO 120</td>
<td>Human Ecology OR</td>
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<tr>
<td>GLY 101</td>
<td>Physical Geology</td>
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<td>GLY 111</td>
<td>Laboratory for Physical Geology</td>
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Total 16

**Social Science Track - 050122305**

(Offered at ASC, SEC)

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<td>SWK 276</td>
<td>The Family OR</td>
<td>3</td>
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<tr>
<td>Elective approved by Appalachian Studies Committee or its designee</td>
<td>3</td>
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<tr>
<td>ANT 220</td>
<td>Intro to Cultural Anthropology</td>
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Total 15

**Applied Process Technologies**

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

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

**Associate in Applied Science**

**Applied Process Technologies - 4103017029**

(Offered at ASC, JFC)

**General Education Courses**

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<thead>
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<th>Title</th>
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<tr>
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<td>Technical Algebra &amp; Trigonometry (Recommended) OR</td>
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<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>
<td>4</td>
</tr>
<tr>
<td>CHE 140/145</td>
<td>Introduction to General Chemistry with Lab</td>
<td>4</td>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
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<tr>
<td>Social/Behavioral Sciences OR</td>
<td>3</td>
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87
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<th>Course Title</th>
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<tr>
<td>ECO 101</td>
<td>Contemporary Economic Issues (Recommended)</td>
<td>3</td>
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<tr>
<td>Heritage/ Humanities</td>
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<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
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### Technical Core Courses

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<td>Digital Literacy Course</td>
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<td>PHS 175</td>
<td>Applied Physics (Recommended) OR</td>
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<tr>
<td>PHY 171</td>
<td>Applied Physics</td>
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<tr>
<td>SFA 101</td>
<td>OSHA, Health and Environmental Safety</td>
<td>3</td>
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<tr>
<td>APT 102</td>
<td>Process Fundamentals</td>
<td>4</td>
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<tr>
<td>APT 104</td>
<td>Rotating &amp; Reciprocating Equipment</td>
<td>3</td>
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<tr>
<td>APT 106</td>
<td>Process Chemistry</td>
<td>2</td>
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<tr>
<td>APT 108</td>
<td>Stationary Equipment</td>
<td>2</td>
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<tr>
<td>APT 202</td>
<td>Federally Mandated Training</td>
<td>3</td>
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<tr>
<td>APT 204</td>
<td>Safety Skills Training</td>
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<tr>
<td>APT 251</td>
<td>Application of Process Operations OR</td>
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<tr>
<td>APT 291</td>
<td>Special Problems in APT (2-3)</td>
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#### Chemical/Refinery Operator Track - 410301701
(Offered at ASC, JFC)

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<td>Instrumentation</td>
<td>4</td>
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<tr>
<td>APT 144</td>
<td>Process Operations</td>
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<tr>
<td>APT 146</td>
<td>Process Applications</td>
<td>2</td>
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<td>APT 148</td>
<td>Process Operations Safety</td>
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#### Power Plant Operator Track - 410301702
(Offered at ASC, JFC)

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<tr>
<td>APT 154</td>
<td>Power Plant Practice</td>
<td>6</td>
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<td>APT 156</td>
<td>Power Plant Protection</td>
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#### Lineman Technology Track - 410301703
(Offered at ASC, JFC)

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<td>Lineman Technology I</td>
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<td>APT 159</td>
<td>Lineman Technology I Lab</td>
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<tr>
<td>EET 130</td>
<td>Transformers</td>
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<tr>
<td>EET 151</td>
<td>Transformer Lab</td>
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<td>APT 258</td>
<td>Lineman Technology II</td>
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<td>APT 259</td>
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### Electives

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<td>COE 199</td>
<td>Co-op</td>
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<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
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<td>EX 196</td>
<td>Experiential Education</td>
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### Certificate

#### Chemical/Refinery Operator - 4103013039

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<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>CHE 130</td>
<td>Introductory General &amp; Biological Chemistry OR</td>
<td>4</td>
</tr>
<tr>
<td>CHE 140/145</td>
<td>Introduction to General Chemistry with Lab</td>
<td>(4)</td>
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<tr>
<td>APT 102</td>
<td>Process Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>APT 104</td>
<td>Rotating &amp; Reciprocating Equipment</td>
<td>3</td>
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<td>APT 108</td>
<td>Stationary Equipment</td>
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<tr>
<td>APT 142</td>
<td>Instrumentation</td>
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### Industrial Worker - 1507013019
(Offered at ASC, JFC)

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

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<th>Course Title</th>
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<td>Lineman Technology I</td>
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<td>APT 159</td>
<td>Lineman Technology I Lab</td>
<td>4</td>
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<tr>
<td>EET 150</td>
<td>Transformers</td>
<td>2</td>
</tr>
<tr>
<td>EET 151</td>
<td>Transformers Lab</td>
<td>1</td>
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<tr>
<td>APT 258</td>
<td>Lineman Technology II</td>
<td>3</td>
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<td>APT 259</td>
<td>Lineman Technology II Lab</td>
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### Power Plant Operator - 4103013029

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<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</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>
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<td>APT 102</td>
<td>Process Fundamentals</td>
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<td>APT 104</td>
<td>Rotating &amp; Reciprocating Equipment</td>
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<td>APT 108</td>
<td>Stationary Equipment</td>
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<td>APT 142</td>
<td>Instrumentation</td>
<td>4</td>
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<tr>
<td>APT 154</td>
<td>Power Plant Practice</td>
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<tr>
<td>APT 156</td>
<td>Power Plant Protection</td>
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<td>EES 101</td>
<td>Basic Electronics</td>
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### Apprenticeship Studies

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

#### Associate in Applied Science

##### Apprenticeship Studies - 4799997010
(Offered at ELC, GTW, JFC, WKC)

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<th>Course Title</th>
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<td>Writing I</td>
<td>3</td>
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<tr>
<td>Oral Communications</td>
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<td>3</td>
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<tr>
<td>PHY 171</td>
<td>Applied Physics OR</td>
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<tr>
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**Certificate**

**Chemical/Refinery Operator - 4103013039**

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<tr>
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<th>Course Title</th>
<th>Credits</th>
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<td>OSHA, Health and Environmental Safety</td>
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<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>CHE 130</td>
<td>Introductory General &amp; Biological Chemistry OR</td>
<td>4</td>
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<tr>
<td>CHE 140/145</td>
<td>Introduction to General Chemistry with Lab</td>
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<tr>
<td>APT 102</td>
<td>Process Fundamentals</td>
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<tr>
<td>APT 104</td>
<td>Rotating &amp; Reciprocating Equipment</td>
<td>3</td>
</tr>
<tr>
<td>APT 108</td>
<td>Stationary Equipment</td>
<td>2</td>
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<tr>
<td>APT 142</td>
<td>Instrumentation</td>
<td>4</td>
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**Technical Courses**

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

**Additional Suggested General Education Courses (Not Required)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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<tbody>
<tr>
<td>ENG 102</td>
<td>Writing II</td>
<td>3</td>
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<tr>
<td></td>
<td>Oral Communication Course</td>
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</table>

### Auto Body/Collision Repair Technology

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

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

### Diploma

**Collision Repair Technician - 4706034019**

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

**General Education Courses:**

<table>
<thead>
<tr>
<th>Area</th>
<th>Course Description</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Area 1</td>
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<tr>
<td>Area 2</td>
<td>Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning</td>
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**Technical Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRT 100</td>
<td>Digital Literacy course OR demonstrated competency</td>
<td>0-3</td>
</tr>
<tr>
<td>CRT 130</td>
<td>Introduction to Collision Repair</td>
<td>2</td>
</tr>
<tr>
<td>CRT 131</td>
<td>Non-Structural Analysis and Damage Repair</td>
<td>6</td>
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<tr>
<td>CRT 150</td>
<td>Non-Structural Analysis and Damage Repair Lab</td>
<td>6</td>
</tr>
<tr>
<td>CRT 151</td>
<td>Painting and Refinishing</td>
<td>6</td>
</tr>
<tr>
<td>CRT 151</td>
<td>Painting and Refinishing Lab</td>
<td>6</td>
</tr>
<tr>
<td>CRT 220</td>
<td>Structural Analysis and Damage Repair</td>
<td>6</td>
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<td>CRT 231</td>
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<td>6</td>
</tr>
<tr>
<td>CRT 250</td>
<td>Mechanical and Electrical Components</td>
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<tr>
<td>CRT 251</td>
<td>Mechanical and Electrical Components Lab</td>
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<tr>
<td>CRT 198</td>
<td>Practicum OR</td>
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**Total Credits** 51-54

**Recommended Program Electives**

<table>
<thead>
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<tr>
<td>CRT 298</td>
<td>Advanced Practicum OR</td>
<td>(2)</td>
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<tr>
<td>CRT 299</td>
<td>Advanced Cooperative Education</td>
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</table>

**Subtotal** 57-60
Certificates

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

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

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

Required:
CRT 100 Introduction to Collision Repair ................. 2
CRT 150 Painting and Refinishing .................................. 6
CRT 151 Painting and Refinishing Lab ............................ 6
Total Credits 14

Collision Repair Helper - 4706033059
(Offered at BSC, GTW, HZC, SEC, SKY, SMC, WKC)

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

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

CRT 100 Introduction to Collision Repair ................. 2
CRT 130 Non-Structural Analysis and Damage Repair .......... 6
CRT 150 Painting and Refinishing .................................. 6
CRT 151 Painting and Refinishing Lab ............................ 6
CRT 230 Structural Analysis and Damage Repair ............. 6
CRT 231 Structural Analysis and Damage Repair Lab ........ 6
CRT 250 Mechanical and Electrical Components ............ 6
CRT 251 Mechanical and Electrical Components Lab .......... 6
Total Credits 50

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 repair and service 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
AIT 110 Brake Systems .......................................... 3
AIT 130 Manual Transmissions .................................. 3
AIT 140 Basic Fuel and Ignition Systems ....................... 3
AIT 142 Emission Systems ...................................... 3
AIT 160 Suspension and Steering ................................ 3
AIT 180 Automatic Transmission/Transaxle ..................... 3
AIT 240 Computer Control Systems and Diagnosis ........... 3
Total Technical core credits 33-36

Automotive Technician Track - 470604702
(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
AIT 111 Brake Systems Lab ...................................... 2
AIT 131 Manual Transmissions Lab ............................... 2
AIT 141 Basic Fuel and Ignition Systems Lab .................. 2
AIT 143 Emission Systems Lab ................................... 2
AIT 161 Suspension and Steering Lab ........................... 2
AIT 181 Automatic Transmission/Transaxle Lab ............. 2
AIT 241 Computer Control Systems and Diagnosis Lab .... 2
Subtotal Credits: 21
Total Credits: 69-72

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

ISX 100 Industrial Safety ............................................ 3
TQX 110 Total Quality Management .............................. 3
B&E 100 Introduction to Business and Economics .......... 1
ACT 101 Fundamentals of Accounting I ........................ 3
TEC 100 Communication for Business and Industry OR .... 3
CMS 152 Writing for Business and Industry .................. 3
Subtotal Credits: 13
Total Credits: 61-64
Diploma
Automotive Technician - 4706044019
(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

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

Technical Core:
Digital Literacy course OR demonstrated competency .............................................................. 0-3
ADX 120 Basic Automotive Electricity .................................................................................. 3
ADX 121 Basic Automotive Electricity Lab ........................................................................ 2
ADX 150 Engine Repair ........................................................................................................ 3
ADX 151 Engine Repair Lab ................................................................................................ 2
ADX 170 Climate Control ..................................................................................................... 3
ADX 171 Climate Control Lab ............................................................................................. 1
ADX 260 Electrical Systems ................................................................................................. 3
ADX 261 Electrical Systems Lab ........................................................................................ 2
AUT 110 Brake Systems ....................................................................................................... 3
AUT 111 Brake Systems Lab ................................................................................................. 2
AUT 130 Manual Transmissions .......................................................................................... 3
AUT 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 ................................................................... 2
AUT 181 Automatic Transmission/Transaxle Lab ............................................................... 2
AUT 240 Computer Control Systems and Diagnosis ......................................................... 3
AUT 241 Computer Control Systems and Diagnosis .......................................................... 2
Any approved work experience component ................................................................... 1
Subtotal Credits: 55-58
Total Credits: 61-64

Automotive Air Conditioning Mechanic - 4706043019
(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)
ADX 170 Climate Control ..................................................................................................... 3
ADX 171 Climate Control Lab ............................................................................................. 1
Total Credits: 4

Automotive Electrician - 4706043039
(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)
ADX 120 Basic Automotive Electricity AND .................................................................. 3
ADX 121 Basic Automotive Electricity Lab ........................................................................ 2
ADX 260 Electrical Systems ................................................................................................. 3
ADX 261 Electrical Systems Lab ........................................................................................ 2
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

Automatic Transmission/Transaxle Technician - 4706043079
(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)
AUT 180 Automatic Transmission/Transaxle .................................................................. 3
AUT 181 Automatic Transmission/Transaxle Lab ............................................................... 2
Total Credits: 5

Brake Repairer- 4706043069
(Offered at ASC, BLC, BSC, ELC, GTW, 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

Certificates

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

Academic Curricula
Tune-up Mechanic - 4706043109

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

ADX 120 Basic Automotive Electricity ........................................ 3
ADX 121 Basic Automotive Electricity Lab ................................ 2
ADX 260 Electrical Systems ..................................................... 3
ADX 261 Electrical Systems Lab ................................................. 2
ALT 140 Basic Fuel and Ignition Systems ....................................... 3
ALT 141 Basic Fuel and Ignition Systems Lab ............................. 2
ALT 142 Emissions Systems ................................................... 3
ALT 143 Emissions Systems Lab ................................................. 2
ALT 240 Computer Control Systems and Diagnosis .................... 3
ALT 241 Computer Control Systems and Diagnosis Lab ............... 2

Total Credits 25

Hybrid and Electric Vehicle Technician – 4706043139

ALT 140 Basic Fuel and Ignition Systems ....................................... 3
ALT 141 Basic Fuel and Ignition Systems Lab ............................. 2
ALT 142 Emissions Systems ................................................... 3
ALT 143 Emissions Systems Lab ................................................. 2
ADX 150 Engine Repair ....................................................... 3
ADX 151 Engine Repairer ....................................................... 2
ADX 120 Basic Automotive Electricity ........................................ 3
ADX 121 Basic Automotive Electricity Lab ................................ 2
ADX 260 Electrical Systems ..................................................... 3
ADX 261 Electrical Systems Lab ................................................. 2
ADX 275 Hybrid and Electric Vehicle Technology ......................... 3
ADX 276 Hybrid and Electric Vehicle Technology Lab ................. 2

Total Credits 25

Aviation Maintenance Technology

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

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

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

Associate in Applied Science

Aviation Maintenance Technology – 4706087029

(Offered at JFC, SMC)

General Education:

ENG 101 Writing I ................................................................. 3
ENG 102 Writing II ............................................................... 3
Quantitative Reasoning ......................................................... 3
Natural Sciences ................................................................. 3
Heritage/Humanities ......................................................... 3
Social/Behavioral Sciences ................................................ 3

Subtotal 15

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

Total Credits 76

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

Diploma

Airframe and Power Plant Maintenance Technician - 4706084049

(Offered at JFC, SMC)

General Education: 6 credit hour requirement for diploma

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

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

Total Credits 67

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

Certificates

Airframe Maintenance Technician - 4706083069

(Offered at JFC, SMC)

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

Total Credits 37
## Biomedical Technology Systems

The Biomedical Technology Systems (BTS) program prepares the adult learner to repair, maintain, 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 healthcare 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)

<table>
<thead>
<tr>
<th>General Education Courses</th>
<th>Credits</th>
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<td>ENG 101 Writing I</td>
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</tr>
<tr>
<td>MAT 126 Technical Algebra and Trigonometry OR</td>
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<tr>
<td>MAT 150 College Algebra</td>
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<tr>
<td>PHY 171 Applied Physics</td>
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<tr>
<td>Heritage/Humanities</td>
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<td>AIT 1001 Basic Electrical Knowledge</td>
<td>2</td>
</tr>
<tr>
<td>AIT 1101 Electrical Power Distribution</td>
<td>1</td>
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<tr>
<td>BIO 135 Basic Anatomy and Physiology with Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>CIT 105 Introduction to Computing</td>
<td>3</td>
</tr>
<tr>
<td>CIT 111 Computer Hardware and Software</td>
<td>4</td>
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<tr>
<td>CIT 160 Introduction to Networking Concepts</td>
<td>4</td>
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<tr>
<td>CIT 180 Security Fundamentals</td>
<td>3</td>
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#### Total Credits: 37

### Technical Courses

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<tr>
<td>BTS 100</td>
<td>Biomedical Technology Systems: A Career Perspective</td>
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<tr>
<td>BTS 110</td>
<td>Environmental Risks and Precautionary Measures for the BTS Professional</td>
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<tr>
<td>BTS 120</td>
<td>Essentials of Biomedical Electronics I</td>
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<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>
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<td>BTS 280</td>
<td>General Care Monitoring and Instrumentation</td>
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<td>BTS 285</td>
<td>Critical Care Monitoring and Instrumentation</td>
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<tr>
<td>BTS 290</td>
<td>Clinical Experience in Biomedical Technology Systems Professional</td>
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#### Total Credits: 68

### Elective

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<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTS 299</td>
<td>Selected Topics of Investigation in Biomedical Technology Systems</td>
</tr>
</tbody>
</table>

#### Certificate

#### Foundations in Biomedical Technology Networking Systems - 1504013029

(Offered at MDC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 105</td>
<td>Introduction to Computing (fulfills digital literacy requirement)</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 Biotechnician certificate introduces hands-on laboratory training needed for entry-level employment in a biotechnological laboratory.
The Advanced Biotechnician certificate provides practical laboratory skills to supplement theoretical knowledge gained from previous coursework, to improve employability in the biotechnology industry.

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

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

### Associate in Applied Science

**Biotechnology Laboratory Technician – 4101017029**

*(Offered at BLC)*

**Required General Education Courses**

<table>
<thead>
<tr>
<th>Category</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heritage/Humanities</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Natural Sciences with Laboratory</td>
<td>4 – 5</td>
</tr>
<tr>
<td>Quantitative Reasoning</td>
<td>3</td>
</tr>
<tr>
<td>Written Communication</td>
<td></td>
</tr>
</tbody>
</table>

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

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

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

**Required Technical Core Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTN 101</td>
<td>Introduction to Biotechnology</td>
<td></td>
</tr>
<tr>
<td>BTN 105</td>
<td>Applied Biotechnology Laboratory Calculations</td>
<td>3</td>
</tr>
<tr>
<td>BTN 201</td>
<td>Biotechnology Techniques I</td>
<td></td>
</tr>
<tr>
<td>BTN 202</td>
<td>Biotechnology Techniques II</td>
<td>4</td>
</tr>
<tr>
<td>BTN 295</td>
<td>Independent Investigation in Biotechnology</td>
<td>1 – 3</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
<td></td>
</tr>
</tbody>
</table>

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

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

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

### Technical Support Courses

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

**Subtotal: Technical Support Courses** 4

**Total** 60 – 64

### Certificate

**Biotechnology Laboratory Assistant - 4101013040**

*(Offered at BLC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTN 100</td>
<td>Contextual Science with Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>BTN 103</td>
<td>Contextual Laboratory Language</td>
<td>3</td>
</tr>
<tr>
<td>BTN 104</td>
<td>Contextual Laboratory Calculations</td>
<td>3</td>
</tr>
<tr>
<td>BTN 101</td>
<td>Introduction to Biotechnology</td>
<td>1</td>
</tr>
<tr>
<td>BTN 106</td>
<td>Fundamentals of Scientific Communications</td>
<td>3</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
<td></td>
</tr>
</tbody>
</table>

**Total** 17

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

### Basic Biotechnician - 4101013020

*(Offered at BLC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTN 101</td>
<td>Introduction to Biotechnology</td>
<td>1</td>
</tr>
<tr>
<td>BTN 105</td>
<td>Applied Biotechnology Laboratory Calculations</td>
<td>3</td>
</tr>
<tr>
<td>BTN 201</td>
<td>Biotechnology Techniques I</td>
<td>4</td>
</tr>
<tr>
<td>BTN 202</td>
<td>Biotechnology Techniques II</td>
<td>4</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
<td></td>
</tr>
</tbody>
</table>

**Total** 16-17

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

### Advanced Biotechnician - 4101013050

*(Offered at BLC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTN 101</td>
<td>Introduction to Biotechnology</td>
<td>1</td>
</tr>
<tr>
<td>BTN 105</td>
<td>Applied Biotechnology Laboratory Calculations</td>
<td>3</td>
</tr>
<tr>
<td>BTN 201</td>
<td>Biotechnology Techniques I</td>
<td>4</td>
</tr>
<tr>
<td>BTN 202</td>
<td>Biotechnology Techniques II</td>
<td>4</td>
</tr>
</tbody>
</table>

94
The Broadband Technology program provides training through three distinct tracks—Broadband Technician, Broadband Telecommunications Equipment Installer Track, and Broadband Design and Applications Track. The program includes instruction in telecommunications, outside plant operations, computer networking, communications networks and systems, signals, circuits, fiber optics, and wireless systems and technology.

Progression in the Broadband Technology program is contingent upon achievement of a grade of "C" or better in each technical course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

### Broadband Technician Track

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

### Broadband Telecommunications Equipment Installer Track

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

### Broadband Design and Applications Track

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

### Broadband Basic Installer

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

### Broadband Support Technician

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

### Broadband Telecommunications Equipment Installer

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

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

Broadband Technician Specialist

The Broadband Specialists I (Field Technicians) certificate primarily focuses on new installations of cable television and broadband services. Students learn a variety of duties including installation, changes of service, additional outlet installation, disconnection of service, payment collection, and any special requests customers may have in regard to installation.

### Associate in Applied Science

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 150 College Algebra OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 126 Technical Algebra and Trigonometry</td>
<td>(3)</td>
</tr>
<tr>
<td>PHY 171 Applied Physics OR</td>
<td>4</td>
</tr>
<tr>
<td>Other Natural Science with Consent of Program Coordinator</td>
<td>(3)</td>
</tr>
<tr>
<td>ENG 101 Writing I</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Science Course</td>
<td>3</td>
</tr>
<tr>
<td>Oral Communications Course</td>
<td>3</td>
</tr>
<tr>
<td>Heritage/Humanities</td>
<td>3</td>
</tr>
<tr>
<td>General Education Credit Hours</td>
<td>18-19</td>
</tr>
</tbody>
</table>

**Technical Core**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELT 110 Circuits I</td>
<td>5</td>
</tr>
<tr>
<td>ELT 120 Digital I</td>
<td>3</td>
</tr>
<tr>
<td>BBT 289 Broadband Technology Capstone</td>
<td>1</td>
</tr>
<tr>
<td>CIT 105 Introduction to Computers OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 111 Computer Hardware and Software</td>
<td>4</td>
</tr>
<tr>
<td>ISX 100 Industrial Safety</td>
<td>3</td>
</tr>
<tr>
<td>BBT 100 Introduction to HFC Cable TV</td>
<td>3</td>
</tr>
<tr>
<td>BBT 200 Introduction to Cellular Technology</td>
<td>2</td>
</tr>
</tbody>
</table>

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

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

**Track Subtotal**  
21

**Total Credit Hours**  
67-68

### Certificates

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 125 Introduction to GIS</td>
<td>3</td>
</tr>
<tr>
<td>BBT 210 Security Systems Applications</td>
<td>3</td>
</tr>
<tr>
<td>BBT 101 HFC Cable-TV Operations</td>
<td>3</td>
</tr>
<tr>
<td>EET 154 Electrical Construction I</td>
<td>2</td>
</tr>
<tr>
<td>EET 155 Electrical Construction I Lab</td>
<td>2</td>
</tr>
<tr>
<td>EET 252 Electrical Construction II</td>
<td>2</td>
</tr>
<tr>
<td>EET 253 Electrical Construction II Lab</td>
<td>2</td>
</tr>
<tr>
<td>EET 250 National Electrical Code</td>
<td>4</td>
</tr>
</tbody>
</table>

**Track Subtotal**  
21

**Total Credit Hours**  
63-64

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELT 110 Voice &amp; Data Installer Level I</td>
<td>3</td>
</tr>
<tr>
<td>BBT 100 Introduction to HFC Cable-TV</td>
<td>3</td>
</tr>
<tr>
<td>BBT 200 Introduction to Cellular Technology</td>
<td>2</td>
</tr>
<tr>
<td>ELT 224 Basic Telecommunications Installation and Maintenance</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total**  
13

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELT 110 Voice &amp; Data Installer Level I</td>
<td>3</td>
</tr>
<tr>
<td>ELT 120 Digital I</td>
<td>3</td>
</tr>
<tr>
<td>CIT 105 Introduction to Computers OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 111 Computer Hardware and Software</td>
<td>4</td>
</tr>
<tr>
<td>CIT 161 Introduction to Networks</td>
<td>4</td>
</tr>
<tr>
<td>ISX 100 Industrial Safety</td>
<td>3</td>
</tr>
<tr>
<td>BBT 100 Introduction to HFC Cable-TV</td>
<td>3</td>
</tr>
<tr>
<td>BBT 200 Introduction to Cellular Technology</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total**  
27

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

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

**Total**  
26

**Broadband Telecommunications Equipment Installer – 4701033080**  
*(Offered at HZC, SEC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 105 Introduction to Computers OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 111 Computer Hardware and Software</td>
<td>4</td>
</tr>
<tr>
<td>BBT 220 PBX Installing</td>
<td>2</td>
</tr>
<tr>
<td>BBT 200 Introduction to Cellular Technology</td>
<td>2</td>
</tr>
<tr>
<td>EET 110 Voice &amp; Data Installer Level I</td>
<td>4</td>
</tr>
<tr>
<td>ETT 116 Fiber Optics Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIT 161 Introduction to Networks</td>
<td>4</td>
</tr>
<tr>
<td>Technical Elective Approved by Program Coordinator</td>
<td>1-3</td>
</tr>
</tbody>
</table>

**Total**  
23-25
Broadband Cyber Security Technician – 4701033090  
(Offered at BSC, HZC, SEC)

BBT 210  Security Systems Applications ........................................... 3
EET 110  Voice & Data Installer Level I ................................................ 4
CIT 105  Introduction to Computers OR .................................................. 3
CIT 111  Computer Hardware and Software ......................................... 3
CIT 161  Introduction to Networks ...................................................... 4
CIT 180  Security Fundamentals .......................................................... 3
CIT 184  Attacks and Exploits ............................................................... 3
CRJ 220  Introduction to Computer Forensics for Criminal Justice ....... 3

Total 27

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 ................................................................. 2
ACR 103  HVAC Electricity Lab ............................................................ 2
CRA 230  Building Controls I ............................................................... 5
CRA 232  Building Controls II .............................................................. 5
Technical Electives (Must complete 10 credit hours from the list below.)
ACR 206  Boilers ................................................................................... 5
ACR 207  Commercial HVAC Systems ................................................ 5
ACR 208  Chillers .................................................................................. 4
Other Technical Electives approved by the Program Coordinator ............. 3-10

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

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

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

Associate in Applied Science

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

General Education:
ENG 101  Writing I ........................................................................... 3
MAT 105  Business Mathematics OR ................................................. 3
MAT 110  Applied Mathematics OR ................................................... 3
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

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

Choose two courses (6 credit hours) from the following list:
BAS 160  Introduction to Business ....................................................... 3
ENG 102  Writing II ............................................................................. 3
BAS 120  Personal Finance ................................................................. 3
OST 255  Introduction to Business Graphics ....................................... 3
OST 150  Transcription and Office Technology ................................. 3
OST 108  Editing Skills for the Office Professional ............................ 3
OST 272  Presentation Graphics ......................................................... 3
OST 250  Advanced Desktop Publishing ............................................. 3

Elective course approved by Program Coordinator .............................. 3

Total Administrative Track Credit Hour 18

Total Credit Hours OST AAS 60-61

Administrative Track - 5204027039

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

Available Completely Online

ACT 101  Fundamentals of Accounting I OR ........................................... 3
OST 220  Administrative Office Simulation .......................................... 3
OST 225  Introduction to Desktop Publishing ..................................... 3
OST 295  Administrative Office Technology Internship OR ................. 3

Choose two courses (6 credit hours) from the following list:
BAS 160  Introduction to Business ....................................................... 3
ENG 102  Writing II ............................................................................. 3
BAS 120  Personal Finance ................................................................. 3
OST 255  Introduction to Business Graphics ....................................... 3
OST 150  Transcription and Office Technology ................................. 3
OST 108  Editing Skills for the Office Professional ............................ 3
OST 272  Presentation Graphics ......................................................... 3
OST 250  Advanced Desktop Publishing ............................................. 3

Elective course approved by Program Coordinator .............................. 3

Total Administrative Track Credit Hour 18

Total Credit Hours OST AAS 60-61

Administrative Track
## Desktop Publishing Track - 520402704
*(Offered at BLC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>OST 130</td>
<td>Typography</td>
<td>3</td>
</tr>
<tr>
<td>OST 215</td>
<td>Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>OST 225</td>
<td>Introduction to Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>OST 250</td>
<td>Advanced Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>OST 255</td>
<td>Introduction to Business Graphics</td>
<td>3</td>
</tr>
<tr>
<td>OST 272</td>
<td>Presentation Graphics</td>
<td>3</td>
</tr>
<tr>
<td>OST 295</td>
<td>Administrative Office Technology Internship OR</td>
<td>3</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
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**Total Desktop Publishing Track Credit Hours**: 20-21

### Financial Assistant Track - 520402703
*(Offered at BLC)*

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<thead>
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<th>Course Title</th>
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<tbody>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I OR</td>
<td>3</td>
</tr>
<tr>
<td>ACT 102</td>
<td>Fundamentals of Accounting II OR</td>
<td>3</td>
</tr>
<tr>
<td>ACT 279</td>
<td>Computerized Accounting Systems</td>
<td>3</td>
</tr>
<tr>
<td>OST 295</td>
<td>Administrative Office Technology Internship OR</td>
<td>3</td>
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<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
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**Choose two courses (6 hours) from the following list:**

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<tr>
<td>OST 112</td>
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</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
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<tr>
<td>OST 225</td>
<td>Introduction to Desktop Publishing</td>
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<tr>
<td>BAS 120</td>
<td>Personal Finance</td>
<td>3</td>
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<tr>
<td>OST 213</td>
<td>Business Calculations for the Office Professional</td>
<td>3</td>
</tr>
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<td>OST 272</td>
<td>Presentation Graphics</td>
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</tr>
<tr>
<td>ENG 102</td>
<td>Writing II</td>
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**Total Financial Assistant Track Credit Hours**: 18

### Legal Administrative Track - 520402705
*(Offered at BLC)*

<table>
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<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I OR</td>
<td>3</td>
</tr>
<tr>
<td>ACT 102</td>
<td>Fundamentals of Accounting II OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 267</td>
<td>Introduction to Business Law</td>
<td>3</td>
</tr>
<tr>
<td>OST 109</td>
<td>Legal Terminology</td>
<td>3</td>
</tr>
<tr>
<td>OST 221</td>
<td>Legal Office Simulations</td>
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<td>MIT 103</td>
<td>Medical Office Terminology</td>
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<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek and Latin OR</td>
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**Total Legal Administrative Assistant Track Credit Hours**: 18

### Diplomas

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<tr>
<th>Diploma Code</th>
<th>Diploma Title</th>
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<tr>
<td>Desktop Publishing Specialist - 5204024029</td>
<td>Desktop Publishing Specialist - 5204024029</td>
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<tr>
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### Technical Courses

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<td>ACT 101</td>
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</tr>
<tr>
<td>ACT 110</td>
<td>Fundamentals of Accounting II OR</td>
<td>3</td>
</tr>
<tr>
<td>ACT 160</td>
<td>Advanced Word Processing Applications</td>
<td>3</td>
</tr>
<tr>
<td>ACT 161</td>
<td>Records and Database Management</td>
<td>3</td>
</tr>
<tr>
<td>ACT 225</td>
<td>Introduction to Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>ACT 235</td>
<td>Business Communication Technology</td>
<td>3</td>
</tr>
<tr>
<td>ACT 240</td>
<td>Software Integration</td>
<td>3</td>
</tr>
<tr>
<td>ACT 250</td>
<td>Advanced Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>ACT 255</td>
<td>Introduction to Business Graphics</td>
<td>3</td>
</tr>
<tr>
<td>ACT 272</td>
<td>Presentation Graphics</td>
<td>3</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
<td>2-3</td>
</tr>
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</table>

**Total Technical Hours**: 38-39

**Total Credit Hours**: 44-45

### General Education

<table>
<thead>
<tr>
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<tr>
<td>ENG 101</td>
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<td>ENG 102</td>
<td>Writing II</td>
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<td>ENG 103</td>
<td>Business Calculations for the Office Professional</td>
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<tr>
<td>MAT 105</td>
<td>Business Mathematics</td>
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<tr>
<td>MAT 106</td>
<td>Higher Level Quantitative Reasoning Course</td>
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**Total General Education**: 6

### Available Completely Online

- Desktop Publishing Track - 520402704
- Financial Assistant Track - 520402703
- Legal Administrative Track - 520402705
- Diplomas
  - Desktop Publishing Specialist - 5204024029
  - Financial Assistant - 5204024049

---

**Technical Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I OR</td>
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<td>ACT 110</td>
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<td>ACT 160</td>
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<td>Advanced Desktop Publishing</td>
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<td>ACT 255</td>
<td>Introduction to Business Graphics</td>
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<tr>
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</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
<td>2-3</td>
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</table>

**Total Technical Hours**: 38-39

**Total Credit Hours**: 44-45

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**General Education**

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tr>
<td>ENG 101</td>
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<tr>
<td>ENG 102</td>
<td>Writing II</td>
<td>3</td>
</tr>
<tr>
<td>ENG 103</td>
<td>Business Calculations for the Office Professional</td>
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<tr>
<td>MAT 105</td>
<td>Business Mathematics</td>
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<tr>
<td>MAT 106</td>
<td>Higher Level Quantitative Reasoning Course</td>
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</table>

**Total General Education**: 6

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**Available Completely Online**

- Desktop Publishing Track - 520402704
- Financial Assistant Track - 520402703
- Legal Administrative Track - 520402705
- Diplomas
  - Desktop Publishing Specialist - 5204024029
  - Financial Assistant - 5204024049
Technical Courses
OST 105 Introduction to Information Systems .................................................3
ACT 101 Fundamentals of Accounting I OR Higher Level Accounting Course ..........3
ACT 102 Fundamentals of Accounting II OR Higher Level Accounting Course ..........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 list:
BAS 160 Introduction to Business ..................................................................3
ENG 102 Writing II ..........................................................................3
BAS 120 Personal Finance ..................................................................3
OST 255 Introduction to Business Graphics ..............................................3
OST 150 Transcription and Office Technology ..........................................3
OST 108 Editing Skills for the Office Professional ....................................3
OST 272 Presentation Graphics ..................................................................3
OST 250 Advanced Desktop Publishing ....................................................3

Total Technical Hours 32-33

Total Credit Hours 38-39

Legal Office Assistant - 5204024059
(Offered at BLC)

General Education
OST 108 Editing Skills for the Office Professional OR .........................3
ENG 101 Writing I ..........................................................................(3)
OST 213 Business Calculations for the Office Professional OR .............3
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 Higher Level Accounting Course ..........3
BAS 267 Introduction to Business Law ......................................................3
OST 109 Legal Terminology ..................................................................3
OST 221 Legal Office Simulations .........................................................3
OST 215 Office Procedures ..................................................................3
OST 110 Document Formatting and Word Processing .................................................3
OST 160 Records and Database Management ..............................................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 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 108 Editing Skills for the Office Professional ....................................3
OST 272 Presentation Graphics ..................................................................3
OST 250 Advanced Desktop Publishing ....................................................3

Total Technical Hours 36

Total Credit Hours 42

Office Assistant - 5204024039
(Offered at BLC, BSC, ELC, HFC, JFC, MYC, OWC)

(Administrative - 5204023039)

(For Practical Education)

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

Total General Education 6

Technical Courses
OST 105 Introduction to Information Systems .................................................3
OST 110 Document Formatting and Word Processing .................................................3
OST 160 Records and Database Management ..............................................3
OST 210 Advanced Word Processing Applications ..................................3
OST 215 Office Procedures ..................................................................3
OST 235 Business Communications Technology ....................................3
OST 240 Software Integration ..................................................................3
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
ENG 102 Writing II ..........................................................................3
BAS 120 Personal Finance ..................................................................3
OST 255 Introduction to Business Graphics ..............................................3
OST 150 Transcription and Office Technology ..........................................3
OST 108 Editing Skills for the Office Professional ....................................3
OST 272 Presentation Graphics ..................................................................3
OST 250 Advanced Desktop Publishing ....................................................3

Total Technical Hours 30

Total Credit Hours 36

Certificates

Basic Business Presentation - 5204023119
(Offered at BLC)

Available Completely Online
OST 105 Introduction to Information Systems .................................................3
OST 108 Editing Skills for the Office Professional OR .........................3
ENG 101 Writing I ..........................................................................(3)
OST 225 Introduction to Desktop Publishing ..............................................3
OST 235 Business Communications Technology ....................................3
OST 240 Software Integration ..................................................................3
OST 295 Administrative Office Technology Internship OR .........................3

Total Credit Hours 15

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

Available Completely Online
OST 105 Introduction to Information Systems .................................................3
OST 110 Document Formatting and Word Processing .................................................3

Total Credit Hours 6
### Business Administration Systems

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**Associate in Applied Science**

**Business Administration Systems - 5202017129**

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

**General Education:**

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<td>Writing I</td>
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<tr>
<td>COM 181</td>
<td>Basic Public Speaking</td>
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<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
<td>3</td>
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<td>ECO Any Economics Course</td>
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<tr>
<td>MAT 105</td>
<td>Business Mathematics OR</td>
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<td>MAT 110</td>
<td>Applied Mathematics OR</td>
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<td>MAT 150</td>
<td>College Algebra OR Higher Quantitative Reasoning</td>
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<td>ENG 102</td>
<td>Writing II</td>
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<td>OST 105</td>
<td>Introduction to Information Systems</td>
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<td>OST 235</td>
<td>Business Communications Technology</td>
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<td>CTT 130</td>
<td>Productivity Software OR</td>
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<td>OST 240</td>
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<td>BAS 160</td>
<td>Introduction to Business</td>
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<td>BAS 250</td>
<td>Business Employability Seminar</td>
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<td>BAS 267</td>
<td>Introduction to Business Law</td>
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<td>BAS 282</td>
<td>Principles of Marketing</td>
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<td>MKT 283</td>
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<tr>
<td>ACC 201</td>
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<tr>
<td>ACT 101</td>
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<td>ACT 102</td>
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<tr>
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<td>OST 105</td>
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<td>ENG 102</td>
<td>Writing II</td>
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<td>CTT 130</td>
<td>Productivity Software OR</td>
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<td>BAS 250</td>
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<td>Introduction to Business Law</td>
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<tr>
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<td>Financial Accounting OR</td>
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</tr>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I AND</td>
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</tr>
<tr>
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**Core Subtotal**

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<tbody>
<tr>
<td>46-49</td>
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101
### Business Administration Systems Tracks

**Accounting Track - 520201701**
*(Offered at ASC, BSC, ELC, GTW, HE, HPC, MDC, OWC, SKY, SAM, WK)*

**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.

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<thead>
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<th>Title</th>
<th>Credits</th>
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<td>ACT 281</td>
<td>Individual Taxation</td>
<td>3</td>
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<tr>
<td>ACT 286</td>
<td>Financial Accounting Topics</td>
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<tr>
<td>BAS 290</td>
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<tr>
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<tr>
<td>CIT 234</td>
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<tr>
<td>CIT 236</td>
<td>Advanced Data Organization</td>
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<td>COE 199</td>
<td>Cooperative Education: Business Administration OR</td>
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<tr>
<td>BAS 280</td>
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<td>(1-3)</td>
</tr>
</tbody>
</table>

**Total Credits** 61-64

### Business Management Track – 520201717

*(Offered at BLC, HZ, HEC, OWC)*

**Note:** Students in this track must take ENG 102, MAT 150 or higher quantitative reasoning and ECO 201 or ECO 202 as part of the core.

**Required:**
- MGT 200 Small Business Management OR ........................................ 3
- MGT 256 Operations Management .......................................................... (3)
- MGT 274 Human Resource Management OR ....................................... 3
- MGT 287 Supervisory Management ....................................................... 3
- MGT 292 Strategic Management ............................................................. 3
- MGT 101 Quality Management Principles ............................................. 3

Choose a total of 6 hours from the following:

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tr>
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<td>BAS 240</td>
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<td>Operations Management</td>
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<td>MKT 155</td>
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<td>MKT 290</td>
<td>Advertising and Promotion</td>
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<td>MKT 291</td>
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<td>MGT 299</td>
<td>Selected Topics in Marketing: (Topic)</td>
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<td>IMD 275</td>
<td>Workplace Management</td>
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<td>REA 100</td>
<td>Real Estate Principles I</td>
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<td>REA 120</td>
<td>Real Estate Marketing</td>
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<td>STA 291</td>
<td>Statistical Methods</td>
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<td>General Psychology OR</td>
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<tr>
<td>SOC 101</td>
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**Subtotal** 18

**Total Credits** 64-67

### Equine Business Management Track – 520201718

*(Offered at BLC)*

**Required:**
- EQS 110 Basic Equine Physiology ...................................................... 3
- EQS 101 Racehorse Care ........................................................................... 1
- EQS 104 Racehorse Care Lab OR ......................................................... 3
- EQS 299 Equine Internship ................................................................. (1-9)
- EQS 118 Equine Bloodstock .................................................................. 3
- EQM 120 Introduction to Commercial Breeding Practices ...................... 3
- EQS 130 Introduction to the Racing Industry ......................................... 3
- EQS 240 Equine Legal and Business Principles ................................... 3

**Subtotal** 19

**Total Credits** 65-68

### Hospitality Management Track - 520201703

*(Offered at BLC, BSC, WKC)*

**Required:**
- HOS 100 Introduction to Hospitality ................................................... 3
- CUL 100 Culinary Arts Profession ...................................................... 2
- HOS 282 Tourism Marketing ............................................................... 3

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

**Hospitality Management Program Coordinator:**
- BAS 200 Small Business Management ............................................. 3
- BAS 274 Human Resource Management ........................................... 3
- BAS 290 Management, Ethics & Society ......................................... 3
- COE 199 Cooperative Education: Business Administration OR .......... 1-3
- BAS 280 Business Internship ........................................................... (1-3)
- CUL 200 Sanitation & Safety ............................................................... 2
- CUL 280 Culinary Arts Profession ..................................................... 2
- CUL 280 Cost & Control ................................................................. 3
- HOS 160 Security for the Hospitality Industry .................................. 3
- HOS 200 Cultural Heritage Tourism .................................................. 3
- HOS 210 Front Office Management .................................................... 3
- HOS 220 Housekeeping & Maintenance Management ....................... 3
- CUL 270 Human Relations Management .......................................... 3

**Subtotal** 17

**Total Credits** 63-66

### Human Resource Management Track - 520201715

*(Offered at BLC, ELC, HPC, MDC, SKY, WKC)*

**Available Completely Online**

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

Choose 9 hours (not duplicated from the core) from the following Approved Technical Courses with no more than 3 credit hours from IFM courses to count towards graduation:

**Human Resource Management Program Coordinator:**
- BAS 280 Business Internship ............................................................ 1-4
- COE 199 Cooperative Education ....................................................... (1-4)
- BAS 284 Applied Management Skills ............................................... 3
- BAS 288 Person & Organizational Leadership .................................... 3
- BAS 290 Management, Ethics & Society ......................................... 3
- BAS 299 Selected Topics in Management: (Track Topic) ..................... 1-3
- ISX 100 Industrial Safety .............................................................. 3
- OST 275 Office Management ............................................................. 3
- QMS 101 Introduction to Quality Systems ........................................... 3
- QMS 202 Performance Management ............................................... 3
- PSY 180 Human Relations ............................................................... 3
- IFM 111 Client Side Informatics Software ......................................... 3
- IFM 128 Principles of Informatics ..................................................... 3
- IFM 130 Business Data Communications ......................................... 3
- IFM 211 Collaboration Software ..................................................... 3

**Subtotal** 18

**Total Credits** 64-67
Academic Curricula

ACT 196 Payroll Accounting ................................................. 3
ACT 177 Entrepreneurial Accounting ................................. 3
BAS 110 Worksheets in Business Applications .................. 3
BAS 120 Personal Finance ................................................. 3
CIT 234 Advanced Productivity Software .................. 3

Management Courses

BAS 170 Entrepreneurship ................................................. 3
BAS 200 Small Business Management ......................... 3
BAS 212 Introduction to Financial Management ....... 3
BAS 289 Operations Management .................................... 3
BAS 290 Management, Ethics & Society .................. 3
BAS 256 International Business ................................... 3
BAS 260 Professional Development and Protocol .......... 2
BAS 274 Human Resource Management .................. 3
BAS 285 Problems in Marketing and Management ........ 3
BAS 287 Supervisory Management .................................. 3
BAS 288 Personal and Organizational Leadership ........ 3
BAS 291 Retail Management ............................................. 3
BAS 299 Selected Topics in Management: (Track Topic) .... 1-3
OST 275 Office Management ......................................... 3
QMS 101 Introduction to Quality Systems .................. 3
QMS 201 Customer Service Improvement Skills ........ 3
QMS 202 Performance Management .................................. 3

Technical Courses:

ACT 196 Payroll Accounting ................................................. 3
ACT 177 Entrepreneurial Accounting ................................. 3
BAS 110 Worksheets in Business Applications .................. 3
BAS 120 Personal Finance ................................................. 3
CIT 234 Advanced Productivity Software .................. 3

Informatics Track - 520201716

(Offered at GTW, HEC, MYC, SMC)

Required:

IFM 215 Information Systems Analysis .................................. 3
CIT 120 Computational Thinking ....................................... 3
CIT 170 Database Design Fundamentals ........................... 3
IFM 215 Information Systems Analysis .................................. 3

Choose 6 hours from the following Technical Courses.

IFM 130 Business Data Communication .................................. 3
IFM 235 Information Systems and Business Intelligence ........ 3
MGT 258 Project Management ........................................... 3
MGT 111 Client-Side Informatics Software ................. 3
IFM 225 Advanced Informatics ........................................... 3
IFM 211 Collaboration Software ........................................... 3
CIT 150 Internet Technologies ........................................... 3

Subtotal 18

Total Credits 64-67

Management Track - 520201708

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

Available Completely Online

Required:

BAS 212 Introduction to Financial Management OR ........................................... 3
BAS 284 Applied Management Skills ........................................... 3

*Must be a General Education Quantitative Reasoning course that is different from core Quantitative Reasoning selection.

Choose 11-12 hours (not duplicated from the core) from the following Management and/or Technical Courses with no more than 3 hours selected from Technical Courses.

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

Subtotal 17-18

Total Credits 64-67

Marketing and Retailing Track – 520201719

(Offered at BLC, OW C)

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 153 Personal Selling OR ........................................... 3
COE 199 Cooperative Education ........................................... 3
MKT 290 Advertising and Promotion ........................................... 3
MKT 291 Retail Management ........................................... 3
MKT 293 Buying and Merchandising ........................................... 3

Choose 6 hours from the following:

ENG 201 Business Writing ........................................... 3
BAS 120 Personal Finance ........................................... 3
MKT 200 Small Business Management ......................... 3
MKT 258 Project Management ........................................... 3
MGT 288 Self Management ........................................... 3
MKT 299 Selected Topics in Marketing: (Track Topic) ........ 1-3
COE 199 Cooperative Education ........................................... 3
ECO 202 Principles of Macroeconomics ........................................... 3

Subtotal 18

Total Credits 64-67

Office Systems Track - 520201705

(Offered at BSC, ELC, 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 120 Personal Finance ........................................... 3
OST 275 Office Management ........................................... 3

Subtotal 18

Total Credits 64-67

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
BAS 280 Business Internship ........................................... (1-4)

Total Credits 64-67

Informatics - 5202014059
(Offered at HEC, MYC, SMC)

General Education:
Area 1 =
ENG 101 Writing I ....................................................... 3
ENG 102 Writing II OR .................................................... 3
ENG 203 Business Writing OR .......................................... 3
OST 235 Business Communications/Technology .................. (3)
Oral Communications .................................................... 3

Area 2 =
Quantitative Reasoning course ........................................... 3
(Excluding MAT 205, MAT 206, STA 200, STA 210)

General Education Subtotal 12

Required Technical:
CIT 105 Introduction to Computers OR ......................... 3
OST 105 Introduction to Information Systems .................. (3)
BAS 160 Financial Accounting OR ................................. 3
BAS 283 Principles of Management ................................... 3
ACT 101 Fundamentals of Accounting I AND ................. (3)
ACT 102 Fundamentals of Accounting II ............................ (3)
IFM 128 Principles of Informatics .................................... 3
IFM 215 Information Systems Analysis ............................. 3
BAS 280 Business Internship OR .................................... 1-3
COE 199 Cooperative Education ....................................... (1-4)

Required Technical Subtotal 25-31

Related Courses (Choose 6 credit hours from the following Technical Courses. Students may select other courses as approved by the Business Administration Systems Program Coordinator.)
IFM 130 Business Data Communication ............................ 3
IFM 235 Information Systems and Business Intelligence ......... 3
MGT 258 Project Management ......................................... 3
IFM 111 Client-Side Informatics Software .......................... 3
IFM 223 Advanced Informatics ........................................ 3
IFM 211 Collaboration Software ....................................... 3
CIT 150 Internet Technologies ......................................... 3
CIT 120 Computational Thinking ...................................... 3

Approved Technical Subtotal 6

Office Systems - 5202014019
(Offered at BSC, HZC, MDC, SMC, WKC)

General Education:
Area 1 =
ENG 101 Writing I ....................................................... 3
COM 181 Basic Public Speaking OR ................................. (3)
COM 252 Introduction to Interpersonal Communication ........ 3

Area 2 =
Any Economics Course .................................................. 3

General Education Subtotal 6

Required Technical:
CIT 105 Introduction to Computers OR ......................... 3
OST 105 Introduction to Information Systems .................. (3)
BAS 201 Financial Accounting OR ................................. 3
ACT 101 Fundamentals of Accounting I AND ................. (3)
ACT 102 Fundamentals of Accounting II ............................ (3)
BAS 160 Introduction to Business .................................... 3
OST 110 Document Formatting and Word Processing .......... 3
OST 210 Advanced Word Processing Applications ............ 3
OST 213 Business Calculations for the Office Professional ... 3
OST 215 Office Procedures ............................................. 3
OST 220 Administrative Office Simulations ....................... 3
CIT 130 Productivity Software OR ................................... 3
OST 240 Software Integration ......................................... (3)
BAS 280 Business Internship OR .................................... 1-4
COE 199 Cooperative Education ....................................... (1-3)

Required Technical Subtotal 28-34

Diplomas
Accounting - 5202014049
(Offered at BSC, GTW, HPC, MYC, OWC, SMC, WKC)

General Education:
Area 1 =
ENG 101 Writing I ....................................................... 3
ENG 102 Writing II OR .................................................... 3
ENG 203 Business Writing OR .......................................... 3
OST 235 Business Communications/Technology .................. (3)
Oral Communications .................................................... 3

Area 2 =
Quantitative Reasoning course ........................................... 3
(Excluding MAT 205, MAT 206, STA 200, STA 210)

General Education Subtotal 12

Required Technical:
CIT 130 Productivity Software OR ................................. 0-3
OST 240 Software Integration ........................................... (3)
ACC 201* Financial Accounting OR ................................. 3
ACT 101 Fundamentals of Accounting I AND ................. (3)
ACT 102 Fundamentals of Accounting II ............................ (3)
ACT 279 Computerized Accounting Systems ..................... 3
COE 199 Cooperative Education OR ................................ 3
BAS 280 Business Internship ........................................... (3)

Required Technical Subtotal 18-24

Related Courses (Choose 6 credit hours from the following list with Program Coordinator Approval)
BAS 120 Personal Finance ................................................ 3
BAS 267 Introduction to Business Law ............................... 3
BAS 283 Principles of Management ................................... 3
BAS 200 Small Business Management ................................ 3
BAS 260 Professional Development and Protocol ............... 2
Economics course ......................................................... 3
Quantitative Reasoning course ........................................... 3

Total Credits 39-45

*No course can be used to fulfill more than one requirement.

104
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.

**General Education:**

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<tr>
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**Area 2 =**

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**Required Technical Subtotal** 22-28

**Total Credits** 40-46

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**Organizational Leadership - 5202014029**

(Offered at BSC, ELC, HZC, JFC, MDC, OHC, SKY, SMC, WKC)

Available Completely Online

**General Education Subtotal** 6

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**Choose 6 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Business Administration Systems Program Coordinator.**

**Required Technical:**

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<td>QMS 201</td>
<td>Customer Service Improvement Skills</td>
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**Approved Technical Courses** 6

**Total Credits** 37-43

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**Small Business Management - 5202014039**

(Offered BSC, ELC, HZC, JFC, MDC, SKY, SMC, WKC)

Available Completely Online

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<td>(3)</td>
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<td>BAS 160</td>
<td>Introduction to Business OR</td>
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<tr>
<td>BAS 170</td>
<td>Entrepreneurship*</td>
<td>(3)</td>
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<tr>
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<td>(1-4)</td>
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**Required Technical Subtotal** 25-31

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**Choose 6 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Business Administration Systems Program Coordinator.**

**Required:**

<table>
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<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 212</td>
<td>Introduction to Financial Management *</td>
<td>3</td>
</tr>
<tr>
<td>BAS 170</td>
<td>Entrepreneurship*</td>
<td>3</td>
</tr>
<tr>
<td>BAS 274</td>
<td>Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 284</td>
<td>Applied Management Skills</td>
<td>3</td>
</tr>
<tr>
<td>BAS 287</td>
<td>Supervisory Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 288</td>
<td>Personal and Organizational Leadership</td>
<td>3</td>
</tr>
<tr>
<td>BAS 290</td>
<td>Management, Ethics &amp; Society</td>
<td>3</td>
</tr>
<tr>
<td>ACT 196</td>
<td>Payroll Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACC 202</td>
<td>Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>CIT 130</td>
<td>Productivity Software OR</td>
<td>3</td>
</tr>
<tr>
<td>OTE 240</td>
<td>Software Integration</td>
<td>(3)</td>
</tr>
<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
</tr>
<tr>
<td>QMS 201</td>
<td>Customer Service Improvement Skills</td>
<td>3</td>
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</table>

**Approved Technical Courses** 6

**Total Credits** 39-46

---

*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, OW, SEC, SKY, SMC, WKC)

Available Completely Online

**Required:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</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>ACC 202</td>
<td>Managerial Accounting</td>
<td>3</td>
</tr>
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</table>

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

**Required Technical:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACT 196</td>
<td>Payroll Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACT 277</td>
<td>Managerial Accounting Topics</td>
<td>3</td>
</tr>
<tr>
<td>ACT 279</td>
<td>Computerized Accounting Systems</td>
<td>3</td>
</tr>
<tr>
<td>ACT 281</td>
<td>Individual Taxation</td>
<td>3</td>
</tr>
<tr>
<td>ACT 286</td>
<td>Financial Accounting Topics</td>
<td>3</td>
</tr>
<tr>
<td>ACT 290</td>
<td>Selected Topics in Accounting (Topic)</td>
<td>1-3</td>
</tr>
<tr>
<td>ACT 295</td>
<td>Corporate and Partnership Taxation</td>
<td>3</td>
</tr>
<tr>
<td>BAS 120</td>
<td>Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>BAS 212</td>
<td>Introduction to Financial Management</td>
<td>3</td>
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</table>
### Accounting Recordkeeping Specialist - 5202013429

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

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<tbody>
<tr>
<td>ACC 201</td>
<td>Financial Accounting OR</td>
</tr>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I AND</td>
</tr>
<tr>
<td>ACT 102</td>
<td>Fundamentals of Accounting II</td>
</tr>
<tr>
<td>ACT 196</td>
<td>Payroll Accounting</td>
</tr>
<tr>
<td>ACT 279</td>
<td>Computerized Accounting Systems</td>
</tr>
<tr>
<td>ACT 281</td>
<td>Individual Taxation</td>
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<tr>
<td>ACT 286</td>
<td>Financial Accounting Topics</td>
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<tr>
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<td>Introduction to Computers OR</td>
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<td>Total Credits</td>
<td>18-21</td>
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**Advanced Business Administration - 5202013129**

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

Available Completely Online

<table>
<thead>
<tr>
<th>Required:</th>
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<tbody>
<tr>
<td>BAS 282</td>
<td>Principles of Marketing</td>
</tr>
<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
</tr>
<tr>
<td>BAS 267</td>
<td>Introduction to Business Law</td>
</tr>
<tr>
<td>BAS 284</td>
<td>Applied Management Skills</td>
</tr>
<tr>
<td>CIT 130</td>
<td>Productivity Software OR</td>
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<tr>
<td>OST 240</td>
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<td>Total Credits</td>
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</table>

**Business Transfer - 5202013149**

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

Available Completely Online

<table>
<thead>
<tr>
<th>Required:</th>
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<tbody>
<tr>
<td>ACC 201</td>
<td>Financial Accounting</td>
</tr>
<tr>
<td>ACC 202</td>
<td>Managerial Accounting</td>
</tr>
<tr>
<td>ECO 201</td>
<td>Principles of Microeconomics</td>
</tr>
<tr>
<td>ECO 202</td>
<td>Principles of Macroeconomics</td>
</tr>
<tr>
<td>STA 220</td>
<td>Statistics</td>
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<td>Total Credits</td>
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</table>

**Entrepreneurship – 5202013379**

(Offered at ELC, GTW, HEC, HPC, MDC, OWC, SEC, SKY, WKC)

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<thead>
<tr>
<th>Required:</th>
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</tr>
</thead>
<tbody>
<tr>
<td>ACC 201</td>
<td>Financial Accounting OR</td>
</tr>
<tr>
<td>ACT 177</td>
<td>Entrepreneurial Accounting</td>
</tr>
<tr>
<td>BAS 170</td>
<td>Entrepreneurship</td>
</tr>
<tr>
<td>BAS 282</td>
<td>Principles of Marketing</td>
</tr>
<tr>
<td>BAS 288</td>
<td>Personal and Organizational Leadership</td>
</tr>
<tr>
<td>Total Credits</td>
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</table>

**Equine Business Management – 5202013479**

(Offered at BLC, HEC)

<table>
<thead>
<tr>
<th>Required:</th>
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</thead>
<tbody>
<tr>
<td>EQM 100</td>
<td>Introduction to Equine Studies</td>
</tr>
<tr>
<td>EQM 120</td>
<td>Introduction to Commercial Breeding</td>
</tr>
<tr>
<td>EQM 140</td>
<td>Equine Business Management I</td>
</tr>
<tr>
<td>EQM 160</td>
<td>Introduction to Business</td>
</tr>
<tr>
<td>EQM 240</td>
<td>Equine Business Management II</td>
</tr>
<tr>
<td>EQM 242</td>
<td>Equine Law</td>
</tr>
<tr>
<td>EQM 246</td>
<td>Current Trends in the Equine Industry</td>
</tr>
<tr>
<td>PSY 110</td>
<td>General Psychology</td>
</tr>
<tr>
<td>MGT 101</td>
<td>Quality Management Principles</td>
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<td>Total Credits</td>
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**Financial Perspectives - 5202013159**

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

Available Completely Online

<table>
<thead>
<tr>
<th>Required:</th>
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</thead>
<tbody>
<tr>
<td>ACC 201</td>
<td>Financial Accounting OR</td>
</tr>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I AND</td>
</tr>
<tr>
<td>ACT 102</td>
<td>Fundamentals of Accounting II</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introductions to Business</td>
</tr>
<tr>
<td>BAS 120</td>
<td>Personal Finance</td>
</tr>
<tr>
<td>Total Credits</td>
<td>12</td>
</tr>
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</table>

**General Business - 5202013169**

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

Available Completely Online

<table>
<thead>
<tr>
<th>Required:</th>
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</thead>
<tbody>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
</tr>
<tr>
<td>CIT 105</td>
<td>Introduction to Computers OR</td>
</tr>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
</tr>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I OR</td>
</tr>
<tr>
<td>ACC 201</td>
<td>Financial Accounting</td>
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<td>ECO</td>
<td>Any Economics Course</td>
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<td>Total Credits</td>
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**Hospitality Management – 5202013179**

(Offered at BLC, BSC, HEC, SKY, WKC)

<table>
<thead>
<tr>
<th>Required:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>HOS 100</td>
<td>Introduction to Hospitality</td>
</tr>
<tr>
<td>CUL 100</td>
<td>Culinary Arts Profession</td>
</tr>
<tr>
<td>HOS 282</td>
<td>Tourism Marketing</td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>BAS 200</td>
<td>Small Business Management</td>
</tr>
<tr>
<td>BAS 274</td>
<td>Human Resource Management</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education: Business Administration OR</td>
</tr>
<tr>
<td>BAS 280</td>
<td>Business Internship OR</td>
</tr>
<tr>
<td>BAS 290</td>
<td>Management, Ethics &amp; Society</td>
</tr>
<tr>
<td>CUL 200</td>
<td>Sanitation &amp; Safety</td>
</tr>
<tr>
<td>CUL 105</td>
<td>Applied Fundamentals of the Culinary Arts Profession</td>
</tr>
<tr>
<td>CUL 280</td>
<td>Cost &amp; Control</td>
</tr>
<tr>
<td>HOS 160</td>
<td>Security for the Hospitality Industry</td>
</tr>
<tr>
<td>HOS 200</td>
<td>Cultural Heritage Tourism</td>
</tr>
<tr>
<td>HOS 210</td>
<td>Front Office Operations &amp; Management</td>
</tr>
<tr>
<td>HOS 220</td>
<td>Housekeeping &amp; Maintenance Management</td>
</tr>
<tr>
<td>CUL 270</td>
<td>Human Relations Management</td>
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<td>Total Credits</td>
<td>17</td>
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**Human Resource Management – 5202013359**

(Offered at ASC, BSC, ELC, GTW, HEC, MDC, MYC, SEC, SKY, WKC)

<table>
<thead>
<tr>
<th>Required:</th>
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<tbody>
<tr>
<td>BAS 274</td>
<td>Human Resource Management</td>
</tr>
<tr>
<td>BAS 287</td>
<td>Supervisory Management</td>
</tr>
<tr>
<td>ACT 196</td>
<td>Payroll Accounting</td>
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</tbody>
</table>
Choose 9 hours from the following Technical Courses.
Students may select other courses as approved by the Business Administration Systems Program Coordinator.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BAS 280</td>
<td>Business Internship OR</td>
<td>1-3</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
<td>(1-3)</td>
</tr>
<tr>
<td>ISX 100</td>
<td>Industrial Safety</td>
<td>3</td>
</tr>
<tr>
<td>BAS 284</td>
<td>Applied Management Skills</td>
<td>3</td>
</tr>
<tr>
<td>BAS 288</td>
<td>Person &amp; Organizational Leadership</td>
<td></td>
</tr>
<tr>
<td>BAS 290</td>
<td>Management, Ethics &amp; Society</td>
<td></td>
</tr>
<tr>
<td>BAS 299</td>
<td>Selected Topics in Management: (Track Topic)</td>
<td></td>
</tr>
<tr>
<td>OST 275</td>
<td>Office Management</td>
<td>1-3</td>
</tr>
<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td></td>
</tr>
<tr>
<td>QMS 201</td>
<td>Customer Service Improvement Skills</td>
<td></td>
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<tr>
<td>QMS 202</td>
<td>Performance Management</td>
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<tr>
<td>PSY 180</td>
<td>Human Relations</td>
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<tr>
<td>IFM 111</td>
<td>Client-Side Informatics Software</td>
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</tr>
<tr>
<td>IFM 128</td>
<td>Principles of Informatics</td>
<td></td>
</tr>
<tr>
<td>IFM 130</td>
<td>Business Data Communications</td>
<td></td>
</tr>
<tr>
<td>IFM 211</td>
<td>Collaboration Software</td>
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</tr>
<tr>
<td>IFM 215</td>
<td>Information System Analysis</td>
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<tr>
<td>IFM 225</td>
<td>Advanced Informatics</td>
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<tr>
<td>IFM 235</td>
<td>Information Systems and Business Intelligence</td>
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**Total Credits** 18

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**Industrial Supervisor - 5202013339**

(Offered at ASC, HPC, SEC)

**General Education:**

<table>
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<tr>
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<th>Course Title</th>
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<tbody>
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<td>College Algebra</td>
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<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td></td>
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<tr>
<td>COM 252</td>
<td>Interpersonal Communications OR</td>
<td>(3)</td>
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<td>PSY 110</td>
<td>General Psychology</td>
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**Required Technical:**

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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
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<td>Supervisory Management</td>
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<td>IND 120</td>
<td>Industrial Safety</td>
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<tr>
<td>IND 233</td>
<td>Statistical Process Control</td>
<td></td>
</tr>
<tr>
<td>BAS 274</td>
<td>Human Resource Management</td>
<td></td>
</tr>
<tr>
<td>CIT 105</td>
<td>Introduction to Computers OR</td>
<td></td>
</tr>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
<td>(3)</td>
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**Choose 6 hours from the approved Technical Courses:**

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<tbody>
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<td>BAS 160</td>
<td>Introduction to Business</td>
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</tr>
<tr>
<td>IND 220</td>
<td>Introduction to Industrial Psychology</td>
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<tr>
<td>ENV 101</td>
<td>Fundamentals of Environment Science</td>
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<td>ENV 112</td>
<td>Environment Management</td>
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<tr>
<td>IND 250</td>
<td>Team Dynamics &amp; Problem – Solving</td>
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**Total Credits** 30

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**Informatics Fundamentals - 5202013449**

(Offered at HEC, MYC, SEC, SMC)

<table>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
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<td>Principles of Informatics</td>
<td></td>
</tr>
<tr>
<td>CIT 170</td>
<td>Database Design Fundamentals</td>
<td></td>
</tr>
<tr>
<td>IFM 215</td>
<td>Information Systems Analysis</td>
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</tr>
</tbody>
</table>

**Total Credits** 9

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**Informatics Business Analyst – 5202013459**

(Offered at HEC, MYC, SEC, SMC)

**Required:** Choose 6 hours from the following Courses.

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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
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<td>Business Data Communications</td>
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<tr>
<td>IFM 235</td>
<td>Information Systems and Business Intelligence</td>
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<td>IFM 111</td>
<td>Client-Side Informatics Software</td>
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</tbody>
</table>

**Total Credits** 6

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**Leadership - 5202013199**

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

**Required:**

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<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BAS 288</td>
<td>Personal and Organizational Leadership</td>
<td>3</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td></td>
</tr>
<tr>
<td>ECO</td>
<td>Any Economics Course</td>
<td></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 Communication</td>
<td>(3)</td>
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**Total Credits** 12

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**Management - 5202013209**

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

**Required:**

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<th>Course Title</th>
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<td>Principles of Management</td>
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</tr>
<tr>
<td>BAS 212</td>
<td>Introduction to Financial Management</td>
<td></td>
</tr>
<tr>
<td>BAS 284</td>
<td>Applied Management Skills</td>
<td></td>
</tr>
<tr>
<td>BAS 287</td>
<td>Supervisory Management</td>
<td></td>
</tr>
<tr>
<td>BAS 288</td>
<td>Personal &amp; Organizational Leadership</td>
<td></td>
</tr>
<tr>
<td>BAS 289</td>
<td>Operations Management</td>
<td></td>
</tr>
<tr>
<td>BAS 290</td>
<td>Management, Ethics &amp; Society</td>
<td></td>
</tr>
<tr>
<td>BAS 291</td>
<td>Retail Management</td>
<td></td>
</tr>
<tr>
<td>BAS 299</td>
<td>Selected Topics Management</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></td>
</tr>
<tr>
<td>QMS 202</td>
<td>Performance Management</td>
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**Total Credit Hours** 15

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**Office Systems - 5202013219**

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

**Required:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<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 Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>OST 150</td>
<td>Transcription and Office Technology</td>
<td></td>
</tr>
<tr>
<td>OST 160</td>
<td>Records and Database Management</td>
<td></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></td>
</tr>
<tr>
<td>OST 295</td>
<td>Office Systems Technology Internship OR</td>
<td>(1-3)</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education: (Business Technology) OR</td>
<td>(1-3)</td>
</tr>
<tr>
<td>BAS 280</td>
<td>Business Internship</td>
<td>(1-4)</td>
</tr>
<tr>
<td>OST 275</td>
<td>Office Management</td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits** 18
Real Estate Pre-Brokerage Management - 5202013489
(Offered at BLC, SEC)

Required:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>REA 100  Real Estate Principles I</td>
<td>3</td>
</tr>
<tr>
<td>REA 220  Brokerage Management</td>
<td>3</td>
</tr>
<tr>
<td>REA 230  Real Estate Law</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>

Choose 9 hours from the following list:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>REA 120  Real Estate Marketing</td>
<td>3</td>
</tr>
<tr>
<td>REA 121  Appraising</td>
<td>3</td>
</tr>
<tr>
<td>REA 122  Construction and Blueprints</td>
<td>3</td>
</tr>
<tr>
<td>REA 201  Property Management</td>
<td>3</td>
</tr>
<tr>
<td>REA 202  Real Estate Investments I</td>
<td>3</td>
</tr>
<tr>
<td>REA 225  Real Estate Finance</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>

Additional General Education Requirements

Choose 6 hours from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 110  General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>ECO 201  Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ACC 201  Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>CTT 130  Productivity Software OR</td>
<td>3</td>
</tr>
<tr>
<td>OST 240  Software Integration</td>
<td>(3)</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>6</strong></td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>24</strong></td>
</tr>
</tbody>
</table>

Operations Management - 5202013669
(Offered at BLC, BSC, GTW, HEC, HPC, MYC, SEC, WKC)

Required:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 160  Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BAS 287  Supervisory Management OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 288  Personal &amp; Organizational Leadership OR</td>
<td>(3)</td>
</tr>
<tr>
<td>QMS 101  Introduction to Quality Systems</td>
<td>(3)</td>
</tr>
<tr>
<td>BAS 289  Operations Management OR</td>
<td>3</td>
</tr>
<tr>
<td>MFG 256  Production Management</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 Skills</td>
<td>(3)</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

Payroll Accounting Specialist - 5202013439
(Offered at ASC, BSC, ELC, GTW, HEC, MDC, MYC, OWC, SEC, SKY, WKC)

Required:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 201  Financial Accounting OR</td>
<td>3</td>
</tr>
<tr>
<td>ACT 101  Fundamentals of Accounting I AND</td>
<td>(3)</td>
</tr>
<tr>
<td>ACT 102  Fundamentals of Accounting II</td>
<td>(3)</td>
</tr>
<tr>
<td>ACT 196  Payroll Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACT 279  Computerized Accounting Systems</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>9-12</strong></td>
</tr>
</tbody>
</table>

Pre-Licensing Real Estate - 5202013239
(Offered at ASC, BLC, BSC, ELC, MDC, MYC, SEC, WKC)

Required:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>REA 100  Real Estate Principles I</td>
<td>3</td>
</tr>
<tr>
<td><strong>Choose 3 hours from the following Technical Courses. Students may select other courses as approved by the Business Administration Systems Program Coordinator.</strong></td>
<td></td>
</tr>
<tr>
<td>REA 120  Real Estate Marketing</td>
<td>3</td>
</tr>
<tr>
<td>REA 200  Real Estate Principles II</td>
<td>3</td>
</tr>
<tr>
<td>REA 225  Real Estate Finance</td>
<td>3</td>
</tr>
<tr>
<td>REA 230  Real Estate Law</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>6</strong></td>
</tr>
</tbody>
</table>

Real Estate Pre-Brokerage Management - 5202013499
(Offered at BLC, SEC)

Required:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>REA 100  Real Estate Principles I</td>
<td>3</td>
</tr>
<tr>
<td>REA 220  Brokerage Management</td>
<td>3</td>
</tr>
<tr>
<td>REA 230  Real Estate Law</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>

Choose 9 hours from the following list:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>REA 120  Real Estate Marketing</td>
<td>3</td>
</tr>
<tr>
<td>REA 121  Appraising</td>
<td>3</td>
</tr>
<tr>
<td>REA 122  Construction and Blueprints</td>
<td>3</td>
</tr>
<tr>
<td>REA 201  Property Management</td>
<td>3</td>
</tr>
<tr>
<td>REA 202  Real Estate Investments I</td>
<td>3</td>
</tr>
<tr>
<td>REA 225  Real Estate Finance</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>

Additional General Education Requirements

Choose 6 hours from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 110  General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>ECO 201  Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ACC 201  Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>CTT 130  Productivity Software OR</td>
<td>3</td>
</tr>
<tr>
<td>OST 240  Software Integration</td>
<td>(3)</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>6</strong></td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>24</strong></td>
</tr>
</tbody>
</table>

Residential Real Estate - 5202013249
(Offered at BSC, ELC, MDC, MYC, SEC, WKC)

Required:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>REA 100  Real Estate Principles I</td>
<td>3</td>
</tr>
<tr>
<td>REA 120  Real Estate Marketing</td>
<td>3</td>
</tr>
<tr>
<td><strong>Choose 6 hours from the following Approved Technical Courses.</strong></td>
<td></td>
</tr>
<tr>
<td>REA 121  Appraising</td>
<td>3</td>
</tr>
<tr>
<td>REA 122  Construction and Blueprints</td>
<td>3</td>
</tr>
<tr>
<td>REA 200  Real Estate Principles II</td>
<td>3</td>
</tr>
<tr>
<td>REA 201  Property Management</td>
<td>3</td>
</tr>
<tr>
<td>REA 225  Real Estate Finance</td>
<td>3</td>
</tr>
<tr>
<td>REA 230  Real Estate Law</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

Sales - 5202013259
(Offered at BSC, ELC, GTW, MYC, OWC, SMC)

Required:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BAS 155  Personal Selling</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>
<td>(3)</td>
</tr>
</tbody>
</table>

Choose 6 hours from the following Technical Courses.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 291  Retail Management</td>
<td>3</td>
</tr>
<tr>
<td>CTT 155  Web Page Development</td>
<td>3</td>
</tr>
<tr>
<td>QMS 201  Customer Service Improvement Skills</td>
<td>3</td>
</tr>
<tr>
<td>BAS 260  Professional Development and Protocol</td>
<td>2</td>
</tr>
<tr>
<td>COE 199  Cooperative Education OR</td>
<td>1-3</td>
</tr>
<tr>
<td>BAS 280  Business Internship</td>
<td>(1-4)</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

Small Business Management - 5202013269
(Offered at ASC, BLC, ELC, HEC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)

Available Completely Online

Required:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 160  Introduction to Business OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 170  Entrepreneurship</td>
<td>(3)</td>
</tr>
<tr>
<td>BAS 200  Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 212  Introduction to Financial Management OR</td>
<td>3</td>
</tr>
<tr>
<td><strong>Second Quantitative Reasoning Course from General Education.</strong></td>
<td>3</td>
</tr>
<tr>
<td>BAS 282  Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>ACC 201  Financial Accounting OR</td>
<td>3</td>
</tr>
<tr>
<td>ACT 177  Entrepreneurial Accounting OR</td>
<td>(3)</td>
</tr>
<tr>
<td>ACT 101  Fundamentals of Accounting I AND</td>
<td>(3)</td>
</tr>
<tr>
<td>ACT 102  Fundamentals of Accounting II</td>
<td>(3)</td>
</tr>
<tr>
<td>BAS 287  Supervisory Management OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 288  Personal &amp; Organization Leadership</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>18-21</strong></td>
</tr>
</tbody>
</table>

Supervisory Management - 5202013279
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, WKC)

Available Completely Online

Required:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTT 105  Introduction to Computers OR</td>
<td>3</td>
</tr>
<tr>
<td>OST 105  Introduction to Information Systems</td>
<td>(3)</td>
</tr>
<tr>
<td>OST 235  Business Communications Technology</td>
<td>3</td>
</tr>
<tr>
<td>BAS 160  Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BAS 287  Supervisory Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 274  Human Resource Management</td>
<td>3</td>
</tr>
</tbody>
</table>
Choose 6 hours from the following Technical Courses.
Students may select other courses as approved by the Business Administration Systems Program Coordinator.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 288</td>
<td>Personal and Organizational Leadership</td>
<td>3</td>
</tr>
<tr>
<td>BAS 290</td>
<td>Management, Ethics &amp; Society</td>
<td>3</td>
</tr>
<tr>
<td>OST 275</td>
<td>Office Management</td>
<td>3</td>
</tr>
<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
</tr>
<tr>
<td>QMS 201</td>
<td>Customer Service Improvement Skills</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits: 21

**Team Leadership - 5202013309**
*(Offered at BLC, BSC, ELC, HEC, JFC, MDC, MYC, OWC, SEC, SKY, WKC)*

*(Available Completely Online)*

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
<td>(3)</td>
</tr>
<tr>
<td>OST 235</td>
<td>Business Communication Technology OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
<td>(3)</td>
</tr>
<tr>
<td>BAS 287</td>
<td>Supervisory Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 288</td>
<td>Personal &amp; Organizational Leadership</td>
<td>3</td>
</tr>
</tbody>
</table>

**Choose 3 hours from the following Technical Courses.**
Students may select other courses as approved by the Business Administration Systems Program Coordinator.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course 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 201</td>
<td>Customer Service Improvement Skills</td>
<td>3</td>
</tr>
<tr>
<td>QMS 202</td>
<td>Performance Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BAS 274</td>
<td>Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 290</td>
<td>Management, Ethics &amp; Society</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits: 18

**Medical Information Technology**

Medical Information Technology graduates prepare medical records and reports, maintain paper and electronic files, order supplies, perform accounting procedures, work with medical insurance and coding, and receive patients in a variety of health care settings. Some of the degree tracks include Medical Administrative Assistant, Medical Insurance Coding, 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:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 105</td>
<td>Business Math OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics OR</td>
<td>(3)</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra OR</td>
<td>(3)</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy &amp; Physiology with Laboratory**</td>
<td>4</td>
</tr>
</tbody>
</table>

**Oral Communications** | 3  
**Heritage/Humanities** | 3  
**Social/Behavioral Sciences** | 3

Subtotal: 19

**Technical Core:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
<td>(3)</td>
</tr>
<tr>
<td>OST 110</td>
<td>Document Formatting and Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>MIT 230</td>
<td>Medical Information Management</td>
<td>3</td>
</tr>
<tr>
<td>OST 240</td>
<td>Software Integration OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 130</td>
<td>Productivity Software</td>
<td>(3)</td>
</tr>
<tr>
<td>MIT 101</td>
<td>Medical Office Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology OR</td>
<td>(3)</td>
</tr>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek and Latin</td>
<td>(3)</td>
</tr>
<tr>
<td>MIT 104</td>
<td>Medical Insurance</td>
<td>3</td>
</tr>
<tr>
<td>MIT 217</td>
<td>Medical Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>MIT 224</td>
<td>Medical Practice Management</td>
<td>3</td>
</tr>
<tr>
<td>MIT 228</td>
<td>Electronic Medical Records</td>
<td>3</td>
</tr>
<tr>
<td>MIT 295</td>
<td>Medical Information Technology Capstone</td>
<td>3</td>
</tr>
</tbody>
</table>

Subtotal: 30

**Medical Administrative Track - 510716705**
*(Offered at ASC, BLC, BSC, ELC, HPC, MDC, MYC, OWC, SKY, SMC, WKC)*

*(Available Completely Online)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I OR</td>
<td>3</td>
</tr>
<tr>
<td>ACC 201</td>
<td>Financial Accounting I</td>
<td>(3)</td>
</tr>
<tr>
<td>OST 225</td>
<td>Introduction to Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>OST 235</td>
<td>Business Communications Technology</td>
<td>3</td>
</tr>
<tr>
<td>OST 210</td>
<td>Advanced Word Processing Application</td>
<td>3</td>
</tr>
</tbody>
</table>

Course Approved by Program Coordinator: 3

Subtotal: 15

Total: 64

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

*(Available Completely Online)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I OR</td>
<td>3</td>
</tr>
<tr>
<td>ACC 201</td>
<td>Financial Accounting I</td>
<td>(3)</td>
</tr>
<tr>
<td>MIT 204</td>
<td>Medical Coding</td>
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<tr>
<td>MIT 205</td>
<td>Advanced Medical Coding</td>
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<tr>
<td>OST 235</td>
<td>Business Communication Technology</td>
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</table>

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, SMC, WKC)*

*(Available Completely Online)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I OR</td>
<td>3</td>
</tr>
<tr>
<td>ACC 201</td>
<td>Financial Accounting I</td>
<td>(3)</td>
</tr>
<tr>
<td>OST 210</td>
<td>Advanced Word Processing Application</td>
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<tr>
<td>OST 235</td>
<td>Business Communications Technology</td>
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Courses Approved by Program Coordinator: 6

Subtotal: 15

Total: 64

**Medical Office Management Track – 510716709**
*(Offered at ASC, BLC, BSC, ELC, HPC, HZC, MDC, MYC, OWC, SKY, SMC, WKC)*

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<thead>
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<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I OR</td>
<td>3</td>
</tr>
<tr>
<td>ACC 201</td>
<td>Financial Accounting I</td>
<td>(3)</td>
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<tr>
<td>OST 235</td>
<td>Business Communications Technology</td>
<td>3</td>
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<tr>
<td>OST 275</td>
<td>Office Management</td>
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Courses Approved by Program Coordinator: 3

Subtotal: 15

Total: 64

**Students can fulfill the Biology requirement with both BIO 137 and BIO 139.**
Medical Transcription Track - 510716708
(Offered at BLC, BSC, ELC, HZC, MYC, OWC, SMC, WKC)
Available Completely Online

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MIT 106</td>
<td>Introduction to Medical Transcription</td>
<td>3</td>
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<tr>
<td>MIT 206</td>
<td>Medical Transcription</td>
<td>3</td>
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<tr>
<td>OST 210</td>
<td>Advanced Word Processing Application</td>
<td>3</td>
</tr>
<tr>
<td>OST 235</td>
<td>Business Communications Technology</td>
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<td><strong>Total</strong></td>
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*Diplomas*

Medical Administrative Assistant - 5107164019
(Offered at ASC, BLC, BSC, ELC, HPC, HZC, MDC, MYC, OWC, SKY, SMC, WKC)
Available Completely Online

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory**</td>
<td>4</td>
</tr>
<tr>
<td>OST 108</td>
<td>Editing Skills for Office Professionals OR</td>
<td>(3)</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>(3)</td>
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**Students can fulfill the Biology requirement with both BIO 137 and BIO 139.**

Technical or Support Courses

<table>
<thead>
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<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I OR</td>
<td>3</td>
</tr>
<tr>
<td>ACC 201</td>
<td>Financial Accounting I</td>
<td>(3)</td>
</tr>
<tr>
<td>OST 110</td>
<td>Document Formatting and Word Processing</td>
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</tr>
<tr>
<td>MAT 105</td>
<td>Business Mathematics OR</td>
<td>(3)</td>
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<td>MIT 230</td>
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<td>3</td>
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<tr>
<td>OST 210</td>
<td>Advanced Word Processing Application</td>
<td>3</td>
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<td>OST 240</td>
<td>Software Integration OR</td>
<td>3</td>
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<tr>
<td>CIT 130</td>
<td>Productivity Software</td>
<td>(3)</td>
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<tr>
<td>MIT 103</td>
<td>Medical Office Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>MIT 217</td>
<td>Medical Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>MIT 228</td>
<td>Electronic Medical Records</td>
<td>3</td>
</tr>
<tr>
<td>OST 108</td>
<td>Editing Skills for Office Professionals OR</td>
<td>(3)</td>
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<td>ENG 101</td>
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<td>Medical Office Terminology OR</td>
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<td>MIT 104</td>
<td>Medical Insurance OR</td>
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<td>Medical Office Procedures</td>
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<tr>
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**Total 49**

Medical Records Specialist - 5107164069
(Offered at ASC, BLC, BSC, ELC, HPC, HZC, JFC, MDC, MYC, SMC, WKC)
Available Completely Online

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory**</td>
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**Students can fulfill the Biology requirement with both BIO 137 and BIO 139.**

Technical or Support Courses

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<th>Course Name</th>
<th>Credits</th>
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<td>Introduction to Computers</td>
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<tr>
<td>CIT 105</td>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>(3)</td>
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<tr>
<td>MIT 110</td>
<td>Document Formatting and Word Processing</td>
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<tr>
<td>MIT 230</td>
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<td>3</td>
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<td>MIT 110</td>
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<td>Medical Office Terminology OR</td>
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</tr>
<tr>
<td>MIT 110</td>
<td>Document Formatting and Word Processing</td>
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*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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<tr>
<td>OST 108</td>
<td>Editing Skills for Office Professionals OR</td>
<td>(3)</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>(3)</td>
</tr>
<tr>
<td>MIT 110</td>
<td>Document Formatting and Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>MIT 103</td>
<td>Medical Information Management OR</td>
<td>3</td>
</tr>
<tr>
<td>MIT 110</td>
<td>Document Formatting and Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>MIT 103</td>
<td>Medical Information Management OR</td>
<td>3</td>
</tr>
<tr>
<td>MIT 110</td>
<td>Document Formatting and Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>MIT 103</td>
<td>Medical Office Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>MIT 110</td>
<td>Document Formatting and Word Processing</td>
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<td>MIT 103</td>
<td>Medical Office Terminology OR</td>
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</tr>
<tr>
<td>MIT 110</td>
<td>Document Formatting and Word Processing</td>
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<tr>
<td>MIT 224</td>
<td>Medical Practice Management</td>
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<tr>
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Hospital Admissions Specialist - 5107163029
(Offered at ASC, BLC, BSC, ELC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
Available Completely Online

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<th>Course Name</th>
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<tr>
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<td>Introduction to Computers</td>
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<tr>
<td>OST 108</td>
<td>Editing Skills for Office Professionals OR</td>
<td>(3)</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>(3)</td>
</tr>
<tr>
<td>OST 110</td>
<td>Document Formatting and Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>OST 235</td>
<td>Business Communications Technology</td>
<td>3</td>
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<tr>
<td>MIT 230</td>
<td>Medical Information Management OR</td>
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<td>MIT 103</td>
<td>Medical Office Terminology OR</td>
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<td>MIT 110</td>
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<td>MIT 110</td>
<td>Medical Terminology from Greek &amp; Latin</td>
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</tr>
<tr>
<td>MIT 104</td>
<td>Medical Insurance OR</td>
<td>(3)</td>
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<tr>
<td>MIT 217</td>
<td>Medical Office Procedures</td>
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<td>MIT 224</td>
<td>Medical Practice Management</td>
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Medical Receptionist - 5107163110
(Offered at ASC, BLC, BSC, ELC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
Available Completely Online

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<th>Course Name</th>
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<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
<td>(3)</td>
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<tr>
<td>OST 110</td>
<td>Document Formatting and Word Processing</td>
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<tr>
<td>MIT 230</td>
<td>Medical Information Management OR</td>
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<td>Medical Office Terminology OR</td>
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<td>MIT 110</td>
<td>Medical Terminology from Greek &amp; Latin</td>
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<td>MIT 104</td>
<td>Medical Insurance OR</td>
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<td>MIT 217</td>
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<tr>
<td>MIT 224</td>
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</table>
Medical Coding - 5107163079
(Offered by ASC, BLC, ELC, HZC, HPC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

OST 110 Document Formatting and Word Processing .......................... 3
BIO 135 Basic Anatomy and Physiology with Lab** .......................... 4
MIT 103 Medical Office Terminology OR ........................................ (3)
AHS 115 Medical Terminology OR .................................................. 3
CLA 131 Medical Terminology from Greek & Latin ............................ (3)
MIT 104 Medical Insurance .......................................................... 3
MIT 204 Medical Coding ............................................................. 3
MIT 205 Advanced Medical Coding ................................................. 3
Course approved by the Program Coordinator ............................... 3
Total 22

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

Electronic Health Records Specialist – 5107163069
(Offered by ASC, BLC, ELC, HZC, JFC, MDC, HPC, OWC, SEC, SKY, SMC, WKC)

MIT 103 Medical Office Terminology OR ........................................ 3
AHS 115 Medical Terminology OR .................................................. (3)
CLA 131 Medical Terminology from Greek & Latin ............................ (3)
MIT 104 Medical Insurance .......................................................... 3
OST 110 Document Formatting and Word Processing .......................... 3
MIT 217 Medical Office Procedures ............................................... 3
MIT 224 Medical Practice Management ......................................... 3
MIT 228 Electronic Medical Records ............................................. 3
MIT 230 Medical Information Management ..................................... 3
OST 240 Software Integration OR ................................................. 3
CIT 130 Productivity Software ..................................................... (3)
OST 105 Introduction to Information Systems OR ............................ 3
CIT 105 Introduction to Computers ............................................... (3)
Course Approved by Program Coordinator .................................... 1-3
Total 24

Medical Scribe – 5107163099
(Offered by BLC, ELC, HZC, JFC, MDC, HPC, OWC, SEC, SKY, SMC)

OST 110 Document Formatting and Word Processing .......................... 3
BIO 135 Basic Anatomy and Physiology with Lab** .......................... 4
MIT 103 Medical Office Terminology OR ........................................ 3
AHS 115 Medical Terminology OR .................................................. 3
CLA 131 Medical Terminology from Greek & Latin ............................ (3)
OST 108 Editing Skills for Office Professionals OR ........................... 3
ENG 101 Writing I ........................................................................... (3)
MIT 217 Medical Office Procedures ............................................... 3
MIT 228 Electronic Medical Records ............................................. 3
MIT 230 Medical Information Management ..................................... 3
OST 105 Introduction to Information Systems OR ............................ 3
CIT 105 Introduction to Computers ............................................... (3)
Course Approved by Program Coordinator .................................... 3
Total 28-10

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

Supply Chain Management

The Supply Chain Management AAS degree incorporates knowledge of the field of logistics, supply chain management, quality management, lean concepts and application, business and operations management, critical communication skills, and digital literacy required for successful employment in the logistics industry. The program will prepare students to perform functions in the modern logistics and supply chain management environment as well as give the preparation to obtain two national industry credentials (CLA and CLT) as a result.

The Supply Chain Specialist Certificate program prepares students for skilled entry-level positions in the field of Logistics. Graduates will also obtain two national industry credentials (CLA and CLT) through successful completion of coursework and a passing score on the respective tests.

The Logistics Quality Technician Certificate program prepares students with quality management knowledge and strategic concepts of planning as a proactive catalyst for organizational and quality improvement in the logistics industry. Graduates will also obtain two national industry credentials (CLA and CLT) through successful completion of coursework and a passing score on the respective tests.

The Logistics Operations Certificate program provides students with knowledge in business, operations, and project management leading to a variety of positions in the logistics industry. Graduates will also obtain two national industry credentials (CLA and CLT) through successful completion of coursework and a passing score on the respective tests.

Associate in Applied Science

Supply Chain Management – 5202037029
(Offered at GTW)

General Education

ENG 101 Writing I ........................................................................... 3
COM 181 Basic Public Speaking OR .............................................. 3
COM 252 Introduction to Interpersonal Communications .................. (3)
ECO 101 Contemporary Economic Issues OR ............................... 3
ECO 201 Principles of Microeconomics OR ................................. (3)
ECO 202 Principles of Macroeconomics ...................................... (3)
MAT 110 Applied Mathematics or Higher Quantitative Reasoning .... 3
Natural Sciences Course ............................................................... 3
Heritage/Humanities .................................................................... 3
Subtotal 18

Technical Courses

CIT 103 Introduction to Computers ............................................... 3
CIT 235 Business Communications .............................................. 3
BAS 160 Introduction to Business .................................................. 3
BAS 256 International Business .................................................... 3
BAS 288 Personal and Organization Leadership ............................ 3
BAS 289 Operations Management ............................................... 3
LOM 100 Introduction to Logistics Management .......................... 3
LOM 101 Transportation .............................................................. 3
LOM 102 Supply Chain Management ........................................... 3
LOM 202 Applied Supply Chain Management .............................. 3
LOM 210 Lean for Logistics .......................................................... 3
QMS 101 Introduction to Quality Systems .................................... 3
QMS 201 Customer Improvement Skills ...................................... 3
QMS 212 Project Management OR .............................................. 3
MGT 258 Project Management OR .............................................. (3)
QMS 251 Strategic Quality Planning ............................................ (3)
BAS 280 Business Internship OR ............................................... 3
COE 199 Cooperative Education .................................................. (0-6)
Subtotal 42-48

Total Credits 60-66
## Certificate

### Supply Chain Specialist – 5202033059
*(Offered at GTW, HPC)*

<table>
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<tr>
<td>LOM 100 Introductory to Logistics Management</td>
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<tr>
<td>LOM 102 Supply Chain Management</td>
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<tr>
<td>LOM 210 Lean for Logistics</td>
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<td>QMS 101 Introduction to Quality Systems</td>
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<td>QMS 251 Strategic Quality Programming</td>
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<td>OST 235 Business Communications OR</td>
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<td>COM 252 Interpersonal Communications</td>
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<td><strong>Total Credits</strong></td>
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### Logistics Quality Technician – 5202033069
*(Offered at GTW, HPC)*

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<td>CIT 105 Introductory to Computers</td>
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<td>LOM 210 Lean for Logistics</td>
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<td>BAS 289 Operations Management</td>
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### Business Communication – 5202013469
*(Offered at ASC, BSC, OW, SEC)*

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<td>NAA 100 Nursing Assistant Skills 1</td>
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<tr>
<td>PHB 152 Phlebotomy: Clinical Experience</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>8</strong></td>
</tr>
</tbody>
</table>

## Business Foundations

The Business Foundations certificate incorporates foundational knowledge of finance, quality systems, and external environmental factors that affect businesses today. The certificate will prepare students to perform functions in an integrated business environment and better understand organizational strategies.

### Certificate

#### Business Foundations – 5201013029
*(Offered at ASC, BSC, HZC, GTW, SEC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>QMS 101 Introduction to Quality Systems</td>
<td>3</td>
</tr>
<tr>
<td>ACC 201 Financial Accounting OR</td>
<td>3</td>
</tr>
<tr>
<td>ACT 101 Fundamentals of Accounting I</td>
<td>(3)</td>
</tr>
<tr>
<td>ACT 102 Fundamentals of Accounting II</td>
<td>(3)</td>
</tr>
<tr>
<td>ECO 201 Principles of Microeconomics OR</td>
<td>3</td>
</tr>
<tr>
<td>ECO 101 Contemporary Economic Issues OR</td>
<td>(3)</td>
</tr>
<tr>
<td>ECO 202 Principles of Macroeconomics OR</td>
<td>(3)</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>21</strong></td>
</tr>
</tbody>
</table>

### Select 9 (nine) credit hours from the following technical courses*: |

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 290 Management, Ethics &amp; Society*</td>
<td>3</td>
</tr>
<tr>
<td>BAS 288 Personal &amp; Organizational Leadership</td>
<td>3</td>
</tr>
<tr>
<td>QMS 240 Statistics for Quality(C)</td>
<td>3</td>
</tr>
<tr>
<td>QMS 212 Project Management OR</td>
<td>3</td>
</tr>
</tbody>
</table>

**BAS 290 pre-requisite is BAS 283 or Consent of Instructor. BAS 283 pre-requisite is BAS 160 or Consent of Instructor.**

**QMS 240 pre-requisite is MAT 150.**

## 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, SM)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPR 100 CPR for Healthcare Professionals</td>
<td>1</td>
</tr>
<tr>
<td>NAA 100 Nursing Assistant Skills 1</td>
<td>3</td>
</tr>
<tr>
<td>PHB 152 Phlebotomy: Clinical Experience</td>
<td>1</td>
</tr>
<tr>
<td>PHB 170 Applied Phlebotomy</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>8</strong></td>
</tr>
</tbody>
</table>
Civil Engineering Technology

The Civil Engineering Technology program is an Associate 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**

<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>CAD 100</td>
<td>Introduction to Computer-Aided Design OR</td>
<td>3</td>
</tr>
<tr>
<td>ACH 185</td>
<td>Computer-Aided Drafting I*</td>
<td>3</td>
</tr>
<tr>
<td>MA 109</td>
<td>College Algebra*</td>
<td>3</td>
</tr>
<tr>
<td>PHY 211</td>
<td>General Physics*</td>
<td>5</td>
</tr>
<tr>
<td>CET 150</td>
<td>Civil Engineering Graphics</td>
<td>3</td>
</tr>
<tr>
<td>CET 200</td>
<td>Civil Engineering Materials</td>
<td>3</td>
</tr>
<tr>
<td>CET 210</td>
<td>Structural Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>CET 220</td>
<td>Intermediate Surveying</td>
<td>4</td>
</tr>
<tr>
<td>CET 260</td>
<td>Hydrology and Drainage</td>
<td>3</td>
</tr>
<tr>
<td>MA 112</td>
<td>Trigonometry</td>
<td>2</td>
</tr>
<tr>
<td>ACH 160</td>
<td>Building Materials and Construction I</td>
<td>3</td>
</tr>
<tr>
<td>ACH 225</td>
<td>Structures</td>
<td>3</td>
</tr>
<tr>
<td>CE 211</td>
<td>Surveying</td>
<td>4</td>
</tr>
<tr>
<td>CAD 200</td>
<td>Intermediate Computer-Aided Design</td>
<td>4</td>
</tr>
<tr>
<td>CAD 298</td>
<td>Practicum OR</td>
<td>1-3</td>
</tr>
</tbody>
</table>

**Technical Electives**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACH 100</td>
<td>Construction Documents I</td>
<td>3</td>
</tr>
<tr>
<td>ACH 150</td>
<td>Construction Documents II</td>
<td>3</td>
</tr>
<tr>
<td>ACH 161</td>
<td>Building Materials and Construction II</td>
<td>3</td>
</tr>
<tr>
<td>ACH 285</td>
<td>Computer-Aided Drafting II</td>
<td>3</td>
</tr>
<tr>
<td>ACH 290</td>
<td>Building Codes I</td>
<td>3</td>
</tr>
<tr>
<td>ACH 291</td>
<td>Construction Management</td>
<td>3</td>
</tr>
<tr>
<td>ACH 292</td>
<td>Building Codes II</td>
<td>3</td>
</tr>
<tr>
<td>ACH 294</td>
<td>Specification Writing</td>
<td>3</td>
</tr>
<tr>
<td>ACH 297</td>
<td>Estimating Techniques</td>
<td>3</td>
</tr>
<tr>
<td>ACH 298</td>
<td>Computer 3D Modeling</td>
<td>3</td>
</tr>
<tr>
<td>ACH 280</td>
<td>Highway Design</td>
<td>3</td>
</tr>
<tr>
<td>CET 280</td>
<td>Highway Design</td>
<td>3</td>
</tr>
<tr>
<td>CET 295</td>
<td>Independent Problems</td>
<td>1-4</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education: CET</td>
<td>3</td>
</tr>
<tr>
<td>GIS 110</td>
<td>Spatial Data Analysis and Map Interpretation</td>
<td>3</td>
</tr>
<tr>
<td>GIS 120</td>
<td>Introduction to Geographic Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>GIS 210</td>
<td>Advanced Topics in GIS</td>
<td>3</td>
</tr>
<tr>
<td>GLY 220</td>
<td>Principles of Physical Geology</td>
<td>4</td>
</tr>
</tbody>
</table>

* Satisfies General Education requirement for AAS degree

**Certificate**

**Community Dental Health Coordinator – 5122083009**

*(Offered at BSC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDH 110</td>
<td>Dental Health Communication Skills</td>
<td>3</td>
</tr>
<tr>
<td>CDH 115</td>
<td>Dental Health Coordination, Documentation, Reporting, and Finance</td>
<td>3</td>
</tr>
<tr>
<td>CDH 125</td>
<td>Dental Health Teaching and Learning Skills</td>
<td>2</td>
</tr>
<tr>
<td>CDH 220</td>
<td>Prevention of Periodontal Disease</td>
<td>3</td>
</tr>
<tr>
<td>CDH 245</td>
<td>Community Dental Health Coordinator Internship</td>
<td>6</td>
</tr>
</tbody>
</table>

**Total** 17

**Computer Aided Drafting and Design**

A computer aided drafter and designer is a technical specialist with 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:**

<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>Quantitative Reasoning (MAT 105 excluded)</td>
<td>3</td>
</tr>
<tr>
<td>MA 109</td>
<td>Natural Sciences</td>
<td>3</td>
</tr>
<tr>
<td>MA 109</td>
<td>Social/Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>MA 112</td>
<td>Heritage/Humanities</td>
<td>3</td>
</tr>
<tr>
<td>PHY 211</td>
<td>Oral Communications</td>
<td>3</td>
</tr>
</tbody>
</table>

**Subtotal** 18

**Technical Core:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD 103</td>
<td>CAD Fundamentals (Digital Literacy Course) OR</td>
<td>4</td>
</tr>
<tr>
<td>CAD 100</td>
<td>Introduction to Computer-Aided Design AND</td>
<td>3</td>
</tr>
<tr>
<td>CAD 102</td>
<td>Demonstrated Digital Literacy Competency</td>
<td>3-0</td>
</tr>
<tr>
<td>CAD 112</td>
<td>Engineering Graphics</td>
<td>4</td>
</tr>
<tr>
<td>CAD 200</td>
<td>Intermediate Computer-Aided Design</td>
<td>4</td>
</tr>
<tr>
<td>CAD 201</td>
<td>Parametric Modeling</td>
<td>4</td>
</tr>
<tr>
<td>CAD 298</td>
<td>Practicum OR</td>
<td>1-3</td>
</tr>
</tbody>
</table>
CAD 299 Cooperative Education ................................................. (1-3)
Technical Electives
(Choose from the Technical Electives List) .................................. 22
Subtotal 42-47
Total Credits 60-65

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

Technical Electives: (This list is not all inclusive, other courses may be taken as approved by the program coordinator such as courses with prefix ACH, BRX, CAR, SMT, and PLW.)
CAD 108 Introduction to Surveying ........................................... 3
CAD 120 Introduction to Architecture ........................................... 4
CAD 150 Programming in CAD ................................................... 4
CAD 212 Industrial Drafting Processes ......................................... 4
CAD 216 Building Information Modeling ...................................... 4
CAD 222 Mechanical Design ..................................................... 4
CAD 220 Architectural Design .................................................... 4
CAD 230 Construction Techniques ............................................. 4
CAD 240 Advanced Dimensioning and Measurement ...................... 4
CAD 252 Commercial Detailing .................................................. 4
CAD 262 Working Drawings ...................................................... 4
CAD 292 Industrial Applications ................................................ 4
CAD 293 Special Problems ....................................................... 1-4
DPT 100 Introduction to 3D Printing Technology ......................... 4

Diploma
Computer Aided Drafting and Design - 1513014049
(Offered at ASC, BLC, BSC, ELC, HZC, HPC, JFC, MYC, SEC, WKC) Available Completely Online

General Education:
Area 1: Written Communication, Oral Communications or Humanities/Heritage .................................................. 3
Area 2: Quantitative Reasoning (MAT 105 excluded) ................. 3
Subtotal 6

Technical Core:
CAD 103 CAD Fundamentals (Digital Literacy Course) ............... 4
CAD 102 Drafting Fundamentals ................................................ 4
CAD 112 Engineering Graphics .................................................. 4
CAD 200 Intermediate Computer Aided Design ......................... 4
CAD 201 Parametric Modeling ................................................... 4
CAD 293 Special Problems ....................................................... 1-4
DPT 100 Introduction to 3D Printing Technology ......................... 4

Subtotal 24
Total Credits 30

Diploma
Detailer - 1513013089
(Offered at ASC, BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, WKC) Available Completely Online

General Education:
Written Communication, Oral Communications, or Humanities/Heritage .................................................. 3
Quantitative Reasoning (MAT 105 excluded) ......................... 3
Subtotal 6

Technical Core:
CAD 103 CAD Fundamentals (Digital Literacy Course) ............... 4
CAD 102 Drafting Fundamentals ................................................ 4
CAD 112 Engineering Graphics .................................................. 4
CAD 200 Intermediate Computer Aided Design ......................... 4
CAD 201 Parametric Modeling ................................................... 4
CAD 293 Special Problems ....................................................... 1-4
DPT 100 Introduction to 3D Printing Technology ......................... 4

Subtotal 20
Total Credits 26

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

General Education:
Written Communication, Oral Communications, or Humanities/Heritage .................................................. 3
Quantitative Reasoning (MAT 105 excluded) ......................... 3
Subtotal 6

Technical Core:
CAD 103 CAD Fundamentals (Digital Literacy Course) ............... 4
CAD 102 Drafting Fundamentals ................................................ 4
CAD 112 Engineering Graphics .................................................. 4
CAD 200 Intermediate Computer Aided Design ......................... 4
CAD 201 Parametric Modeling ................................................... 4
CAD 293 Special Problems ....................................................... 1-4
DPT 100 Introduction to 3D Printing Technology ......................... 4

Subtotal 8
Total Credits 14

Diploma
Civil Drafter - 1513013049
(Offered at ASC, BLC, BSC, HZC, SEC)

General Education:
Quantitative Reasoning (MAT 105 excluded) ......................... 3
Subtotal 3
Technical Core:
- CAD 103 CAD Fundamentals (Digital Literacy Course) 4
- CAD 102 Drafting Fundamentals 4
- CAD 112 Engineering Graphics 4
Subtotal 12

Surveying Core:
Choose 9-12 hours from the following courses:
- CAD 108 Introduction to Surveying 3
- CAD 130 Descriptive Geometry 4
- SMT 110 Principles of Surveying 3
- SMT 130 Land Surveying Graphics 3
- SMT 160 Construction Surveying 3
- SMT 210 Advanced Surveying Measurement 3
- SMT 220 Surveying Lab 4
- SMT 230 Land Boundary Location 3
- SMT 250 Mine Surveying 3
Subtotal 9-12

Total Credits 24-27

3D Modeler – 1513013099
(Offered at BLC, ELC, HPC, HZC, JFC, SEC, WKC)
- CAD 100 Introduction to Computer Aided Design OR 3
- CAD 103 CAD Fundamentals (4)
- CAD 200 Intermediate CAD 4
- CAD 201 Parametric Modeling 4
- Technical Electives 5-7
Total Credits 16-19

Computer & Information Technologies


This program includes tracks in Business Software and Support, Data Center Technologies, Geospatial Technologies, Informatics, Information Security, Internet Technologies, Network Administration, Networking Technologies, Programming, and Video Game Design, with a core of courses common to all. The core includes a general education component essential to a collegiate education and a technical component giving students an introduction to information systems, computer applications, program development, system maintenance, networking, security, Internet technologies, database design, and collaborative system development. In addition to core courses, students take specialty courses for their selected track.

Students graduating with a degree or certificate in Computer & Information Technologies may only use a course with a grade of “C” or higher (or a “Pass” for Pass/Fail courses) to fulfill a core or track graduation requirement.

The Computer & Information Technologies department does not accept non-Gen Ed courses older than 5 years from returning or transfer students without consent from the local program coordinator.

Students may not use one course to fulfill multiple requirements.

The Business Software and Support Track emphasizes several aspects of application software. It includes such productivity applications as: word processing, spreadsheets, database management, presentation, geograph-
languages. With tracks in Information Systems and Software Development, students successfully completing this track are prepared for entry-level positions in computer programming.

Information Systems - This track is designed with an emphasis on programming for a business environment. Students completing the Information Systems track study basic business concepts, one programming language at an advanced level, and two programming languages at an introductory level.

Software Development - This track emphasizes computer software development. Students completing the Software Development track study a minimum of two computer programming languages at an advanced level and additional programming language(s) at an introductory level. Flexibility within this track allows students to focus on a specific area of software development by means of the programming languages they choose to study (object-oriented programming, database programming, game development, etc.).

The Computer Science track prepares students interested in an advanced study of computer programming. The curriculum couples the study of programming with computer science concepts such as computational complexity, advanced data structures, and proof techniques. The curriculum may also be used to prepare students for entry into bachelor-level programs in computer science.

The Video Game Design track prepares students to design, develop, and market digital games and simulations. This track focuses on game development with an emphasis on game programming.

The Data Center Technologies track provides experience with Cloud computing areas such as virtualization, storage, security, high availability and adherence to standards in provisioning of computing resources that meet business and organizational needs. The curriculum may be used to prepare students for entry level positions in organizations that manage and design data centers.

Computer Technician Certificate

The Computer Technician Certificate offers students the opportunity to earn a credential demonstrating computer technician competencies. This certificate consists of the core skills that students need to achieve the industry A+ and Security+ certifications. In addition, this certificate will provide a way for professionals currently in the industry to update their technician skills and for new students to show progress in the CIT program.

CIT Fundamentals Certificate

The CIT Fundamentals Certificate offers students the opportunity to earn a credential demonstrating basic competency in the area of computers. The certificate consists of a natural progression of classes that are required for the Associate in Applied Science degree in Computer & Information Technologies. It gives those who are unable, or do not need, to complete a degree a way of demonstrating their level of computer proficiency.

Productivity Software Specialist Certificate

The Productivity Software Specialist Certificate offers students the opportunity to earn a credential demonstrating productivity software competencies. This certificate consists of the core skills that students need to effectively use various productivity software products. In addition, this certificate will provide a way for professionals currently in the industry to update their productivity software skills and for new students to show progress in the CIT program.

Computer Tech Basic Certificate

The Computer Tech Basic Certificate offers students the opportunity to earn a credential demonstrating basic competency in the area of computer information technology. The certificate consists of a natural progression of classes that are required for the Associate in Applied Science degree in Computer & Information Technologies. It gives those who are unable, or do not need, to complete a degree a way of demonstrating their level of computer proficiency. The Computer Tech Basic Certificate prepares students for the CompTIA A+ and Net+ certification exams which are recognized by the computer industry around the world.

Computer Support Technician Certificate

The Computer Support Technician Certificate offers students the opportunity to earn a credential demonstrating computer support technician competencies. The certificate consists of the core skills that students need for computer and end-user support. In addition, this certificate will provide a way for professionals currently in the industry to update their computer support technician skills and for new students to show progress in the CIT program.

Information Security Specialist Certificate

The Information Security Specialist Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of information security. This certificate consists of the core skills that students need to effectively build and maintain information security systems. In addition, this certificate will provide a way for professionals currently in the industry to update their information security skills and for new students to show progress in the CIT program.

Microsoft Network Administrator Certificate

The Microsoft Network Administrator Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of computer networking. This certificate consists of the core skills that students need to effectively build and maintain computer networks. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program.

CISCO Networking Associate Certificate

The CISCO Networking Associate Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of computer networking. This certificate consists of the core skills that students need to effectively build and maintain computer networks. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program. The CISCO Networking Associate Certificate prepares students for the CCNA exam which is recognized by the computer industry around the world.

Network Technologies Specialist Certificate

The Network Technologies Specialist Certificate offers students the opportunity to earn a credential demonstrating network technology competencies. This certificate consists of specialized networking classes that students need to effectively configure and maintain networks using network technologies specialist skills. In addition, this certificate will provide a way for professionals currently in the industry to update their network technologies specialist skills.
Net+ Prep Certificate

The Net+ Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of computer networking. This certificate consists of the core skills that students need to effectively build and maintain computer networks. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program. The Net+ Certificate prepares students for the CompTia Net+ exam which is recognized by the computer industry around the world.

Security + Prep Certificate

The Security+ Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of information security. This certificate consists of the core skills that students need to effectively build and maintain information security systems. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program. The Security+ Certificate prepares students for the CompTia Security+ exam which is recognized by the computer industry around the world.

CISCO Networking Enhanced Certificate

The CISCO Networking Enhanced Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of computer networking. This certificate consists of the core skills that students need to effectively build and maintain computer networks. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program. The CISCO Networking Associate Certificate prepares students for the CCNA and Net+ exams which are recognized by the computer industry around the world.

A+ Prep Certificate

The A+ Certificate offers students the opportunity to earn a credential demonstrating basic competency in the area of computer hardware and software. The certificate consists of one course that prepares students for the CompTIA A+ certification exams which are recognized by the computer industry around the world. It gives those who are unable, or do not need, to complete a degree a way of demonstrating their level of proficiency.

Microsoft Enterprise Administrator Certificate

The Microsoft Enterprise Administrator certificate offers students the opportunity to earn a credential demonstrating skills in the administration and design of Microsoft enterprise networks. This certificate consists of the core skills that students need to effectively plan, build, and maintain a Microsoft network. In addition, this certificate will provide a way for professionals currently in the industry to update their Microsoft network administrator skills.

Programming Certificate

The Software Developer Certificate offers students the opportunity to earn a credential demonstrating programming competencies. This certificate consists of the core skills that students need to effectively develop programs using multiple computer languages. In addition, this certificate will provide a way for professionals currently in the industry to update their programming skills and for new students to show progress in the CIT program.

Web Programming Certificate

The Web Programming Certificate offers students the opportunity to earn a credential demonstrating web programming competencies. This certificate consists of the core skills that students need to effectively develop websites using web programming. In addition, this certificate will provide a way for professionals currently in the industry to update their web programming skills and for new students to show progress in the CIT program.

Web Administration Certificate

The Web Administration Certificate offers students the opportunity to earn a credential demonstrating web administration competencies. This certificate consists of the core skills that students need to effectively maintain web sites through network and web server administration. In addition, this certificate will provide a way for professionals currently in the industry to update their web administration skills and for new students to show progress in the CIT program.

Social Media Specialist Certificate

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

Digital Forensics Certificate

The Digital Forensics Certificate offers students the opportunity to earn a credential demonstrating skills in digital forensics. Digital forensics covers the retrieval and investigation of material found in digital devices. Digital material refers to all methods of electronic data storage and transfer devices, including computers, laptops, cell phones, tablets, gaming consoles, and portable storage devices. The goal of digital forensics is to ensure the integrity of that digital material while thoroughly examining it. Digital forensics requires in-depth knowledge of the understanding of the legal as well as the technical aspects of cyber-crime. This certificate consists of the core skills that students need to demonstrate in basic digital forensic skills. It provides an introduction to information security and incident response, forensic preparation and data recovery and analysis. The goals of this certificate focus on the principles and techniques used to identify, search, seize and analyze digital media, and to conduct cyber investigations. In addition, this certificate will provide a way for professionals currently in the industry to update their digital forensic skills and for new students to show progress in the CIT program.

Mobile Apps Development Certificate

The Mobile Apps Development Certificate offers students the opportunity to earn a credential demonstrating mobile apps development competencies. This certificate consists of the core skills that students need to effectively develop mobile apps. It provides a way for professionals currently in the industry to update their mobile app development skills and for new students to show progress in the CIT program.

Video Game Design Certificate

The Video Game Design Certificate prepares students to design, develop, and market digital games and simulations.

Informatics Advanced Certificate

The Informatics Advanced Certificate builds on the Informatics Generalist Certificate for those in the workforce looking to gain deeper knowledge about informatics structure and analysis. It will prepare them to work with collaboration software, such as SharePoint, will work with database programming and mining.
Informatics Generalist Certificate
The Informatics Generalist Certificate is for students in the workforce looking to gain knowledge about informatics. It will prepare them to use and understand existing software and will introduce them to data analysis and how it can be used.

Informatics Programming Certificate
This certificate offers students the opportunity to earn a credential demonstrating informatics programming competencies. It consists of core abilities that students need to design well-structured databases and effectively develop secure applications using an object-oriented programming language to interface with databases.

Associate in Applied Science
Computer and Information Technologies - 1101017089
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

General Education
ENG 101 Writing I ...............................................................3
MAT 126 Technical Algebra and Trigonometry (or higher) 3
Social and Behavioral Science Course ................................3
Heritage or Humanities Course ........................................3
Natural Sciences Course ..................................................3
Subtotal 15

Core Requirements
CIT 105 Introduction to Computers .................................3
CIT 111 Computer Hardware and Software ......................4
CIT 120 Computational Thinking ......................................3
CIT 170 Database Design Fundamentals .........................3
CIT 180 Security Fundamentals ......................................3
Approved Level I Networking Course ............................4
Approved Level I Programming Language Course ..........3
CIT 293 CIT Employability Studies ....................................1
Technical Core Subtotal 24

Business and Software Support Track – 1101017117
(Offered at ASC, BLC, BSC, HZC, HEH, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
CIT 130 Productivity Software ........................................3
CIT 234 Advanced Productivity Software ........................3
CIT 236 Advanced Data Organization Software ................3
Approved Business OR Management Course ................3
Completion of a Business Software and Support Track Course
Sequence in Business Software Specialist OR
Computer Support OR
Software Support ..........................................................9
Track Subtotal 21
Total 60

Business Software and Support Track Course Sequences:
Business Software Specialist
CIT 171 SQL I ................................................................... 3
Approved CIT Technical Course ......................................3
Approved Business or Management Course .................3
Subtotal 9

Computer Support
CIT 232 Help Desk Operations .........................................3
Approved CIT Technical Course ......................................3
Approved CIT Technical Course ......................................3
Subtotal 9

Software Support
CIT 150 Internet Technologies OR ....................................3
CIT 155 Web Page Development OR ..............................3
CIT 157 Web Site Design and Production .......................3
CIT 253 Data Driven Web Pages: Topic .........................3
ENG 102 Oral Communications Course .........................(3)
Subtotal 9

Information Security Track - 110101712
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC)
CIT 182 Perimeter Defense.................................................3
CIT 184 Attacks and Exploits .............................................3
CIT 217 UNIX/Linux Administration ................................3
Approved Network Elective Course ...............................6
Approved Security Elective Course ...............................3
Approved CIT Technical Course(s) ...............................3
Track Subtotal 21
Total 60

Internet Technologies Track - 110101710
(Offered at ASC, BLC, BSC, ELC, HEC, HPC, HZC, MDC, MYC, OWC, SEC, SKY, SMC)
Complete two of the following not taken in the program core:
CIT 150 Internet Technologies ..........................................3
CIT 155 Web Page Development ......................................3
CIT 157 Web Site Design and Production .......................3
Subtotal 60

*Internet Technologies Track Course Sequences:
Web Programming Course Sequence:
CIT 257 Approved Level I Web Programming Language Course .................................3
CIT 258 Approved Level II Web Programming Language Course .................................3
CIT 253 Data Driven Web Pages: Topic ................................3
Sequence Subtotal 12

Web Administration Course Sequence:
CIT 219 Internet Protocols .................................................3
CIT 255 Web Server Administration ................................3
CIT 214 Microsoft Server Configuration AND ................3
CIT 215 Microsoft Server Administration ................................3
CIT 216 Microsoft Server Advanced Services ..................3
CIT 217 UNIX/Linux Administration AND .....................3
CIT 218 UNIX/Linux Net Infrastructure ............................3
Sequence Subtotal 12

118
**Network Administration Track - 110101708**

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

Network Administration Track Course Sequence ………. 12
Sequence in:
Microsoft Windows Administration
Cisco Network Associate
Approved CIT Technical Courses ...............................9-12

Track Subtotal 21-24
Total 60-63

### Approved Network Technologies Course Sequences *

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<td>CIT 214 Microsoft Server Configuration ................ 3</td>
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<td>CIT 215 Microsoft Server Administration ................ 3</td>
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<td>CIT 216 Microsoft Server Advanced Series ............... 3</td>
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<td>CIT 167 Routing &amp; Switching Essentials ............ 4</td>
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<td>CIT 209 Network Security ............................... 4</td>
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<td>CIT 212 Connecting Networks ......................... 4</td>
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<td>CIT 288 Network Security ......................... 3</td>
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<td>CIT 255 Web Server Administration .............. 3</td>
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Select 15 hours from the courses listed below. At least 8 hours must be from a single platform and at least 4 hours must be from a different platform: ................................... 15

Track Subtotal 21
Total 60-63

### Approved Management or Business Course

Approved Level I Programming Language .................... 3
Approved Level II Programming Language ................... 3
Approved Level III Programming Language ................. 3
Completion of a Programming Track Course Sequence in: .. 12
Information Systems OR
Programming Software Development

### Programming Track Course Sequences:

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<td>CIT 157 Web Site Design and Production ... (3)</td>
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<td>CIT 253 Data-Driven Web Pages: Topic .......... (3)</td>
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### Video Game Design Track - 110101715

(Offered at ASC, BLC, HEC, HZC, MYC, SEC, SKY, SMC, WKC)

| CIT/IMD 124 Introduction to Game Development .......... 3 |
| CIT/IMD 274 Seminar in Game Development ................. 3 |
| CIT/IMD 221 Computer Graphics AND ....................... 3 |
| CIT/IMD 222 3D Modelling AND ............................... 3 |
| CIT/IMD 223 3D Animation AND ............................... 3 |
| CIT/IMD 273 Game Production AND ......................... 3 |
| Video Game Design Elective ............................... 3 |

Track Subtotal 21
Total 60

### Data Center Technologies Track – 110101716

(Offered at ASC, BLC, JFC, WKY)

| CIT 167 Routing and Switching Essentials .............. 4 |
| CIT 201 Information Storage Management ................ 3 |
| CIT 214 Microsoft Server Configuration .................. 3 |
| CIT 217 Unix/Linux Administration ....................... 3 |
| CIT 203 Introduction to Virtualization ................. 3 |
| CIT 204 VMware Optimize and Scale ...................... 3 |
| CIT 205 Cloud Infrastructure and Services .............. 3 |

Track Subtotal 22
Total 61

### Geospatial Technologies Track – 110101718

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

| CIT 125 Introduction to Digital Maps ..................... 3 |
| CIT 223 GIS Software Tools .................................. 3 |
| GIS 145 Remote Sensing ...................................... 3 |
| GIS 253 Geospatial Programming ............................ 3 |
| GIS 260 GIS/Web Mapping .................................... 3 |
| CIT 299 Selected Topics in GIS ............................. 3 |
| Internship ..................................................... 3 |

Track Subtotal 21
Total 60
Informatics Track – 110101719
(Offered at)

ENG 102  Writing II .......................................................... 3
Oral Communications Course ........................................ 3
CIT 150  Internet Technologies OR ................................. 3
CIT 155  Web Page Development OR ............................. (3)
CIT 157  Web Site Design and Production ....................... (3)
CIT 249  Java II OR .......................................................... 3
INF 260  Object-Oriented Programming I ....................... (3)
Completion of an Informatics Track Course Sequence In:
Business OR
Data Science OR
Informatics Programming ........................................... 9-11
Track Subtotal ......................................................... 21-23
Total ................................................................. 60-62

Informatics Track Course Sequences:
Business:
IFM 111  Client-Side Informatics Software ....................... 3
IFM 128  Principles of Informatics OR ............................ 3
INF 128  Principles of Informatics .................................. 3
IFM 211  Collaborative Software OR ................................ 3
IFM 225  Advanced Informatics OR ............................... (3)
ACC 201  Financial Accounting OR ............................... (3)
ACC 202  Managerial Accounting OR ............................ (3)
ECO 201  Principles of Microeconomics OR .................... (3)
ECO 202  Principles of Macroeconomics ........................ (3)
Sequence Subtotal ................................................... 9

Data Science:
MAT 155  Trigonometry .................................................. 3
MAT 174  Calculus I OR .................................................. 4
MA 113  Calculus I .......................................................... 4
CS 275  Discrete Math OR .............................................. (4)
STA 210  Statistics: A Force in Human Judgement OR ...... (3)
STA 220  Statistics OR ................................................... (3)
STA 296  Statistical Methods and Motivations .................. (3)

Informatics Programming:
CIT 253  Data-Driven Web Pages .................................. 3
CS 215  Introduction to Program Design, Abstraction, and Problem
Solving OR .............................................................. 4
CIT 242  C++ II OR ......................................................... (3)
CIT 243  C# II .............................................................. (3)
CS 216  Introduction to Software Engineering OR .......... 3
STA 210  Statistics: A Force in Human Judgement OR ...... (3)
STA 220  Statistics ........................................................ (3)
Sequence Subtotal ................................................... 10

Course Choice Lists
Approved Business Courses*
ACC 201  Financial Accounting I ................................. 3
ACT 101  Fundamentals of Accounting ........................... 3
BAS 160  Introduction to Business ............................... 3
IFM 111  Client-Side Informatics Software ....................... 3
IFM 128  Principles of Informatics .................................. 3
IFM 211  Collaboration Software ................................... 3
IFM 225  Advanced Informatics ..................................... 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 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 146  Swift I ............................................................. 3
CIT 147  Programming I: Language ............................... 3
CIT 148  Visual Basic I ................................................... 3
CIT 149  Java I .............................................................. 3
CIT 171  SQL I .............................................................. 3
University Level I programming language as approved by
local Program Coordinator .......................................... 3

Approved Level II Programming Language Courses*
CIT 237  iOS Programming .............................................. 3
CIT 238  Android Programming ...................................... 3
CIT 241  PHP II ............................................................. 3
CIT 242  C++ II ............................................................. 3
CIT 243  C# II ............................................................... 3
CIT 244  Python II ........................................................ 3
CIT 247  Programming II: Language .............................. 3
CIT 248  Visual Basic II .................................................. 3
CIT 249  Java II .............................................................. 3
CIT 271  SQL II ............................................................. 3
University Level II programming language as approved by
local Program Coordinator .......................................... 3

Approved Level III Programming Language Courses*
CIT 277  Programming III: Language ............................. 3
CIT 278  Visual Basic III ................................................ 3
University Level III programming language as approved by
local Program Coordinator .......................................... 3

Approved Level I Web Programming Language Courses*
CIT 141  PHP I .............................................................. 3
CIT 144  Python 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 244  Python II ........................................................ 3
CIT 248  Visual Basic II .................................................. 3
CIT 249  Java II .............................................................. 3
Approved Social Media Courses*

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<td>CIT 152</td>
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Approved Video Game Design Electives*

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Approved CIT Technical Courses*

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<tr>
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*Or other courses approved by Computer & Information Technologies Program Coordinator

Note: Students may not use one course to fulfill multiple requirements. Students may choose CIT 290 or COE 199 for a maximum of 3 credit hours.

**Certificates**

**Computer Technician - 1101013289**

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Total 14

**CIT Fundamentals - 1101013309**

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<td>CIT 170</td>
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Total 23

**Productivity Software Specialist - 1101013299**

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<td>CIT 130</td>
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Total 12

**Computer Tech Basic - 1101013319**

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Total 11

**Computer Support Technician - 1101013329**

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Total 16

**Information Security Specialist - 1101013339**

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<td>CIT 182</td>
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<td>CIT 184</td>
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Approved Security/Network Elective Courses 6

Total 19

**Microsoft Network Administrator - 1101013349**

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Total 19

**CISCO Networking Associate - 1101013359**

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Total 16

**Network Technologies Specialist - 1101013369**

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Select 15 hours from the courses listed below. At least 8 hours must be from a single platform and at least 4 hours must be from a different platform.

Total 21

**Microsoft Platform**

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Other Microsoft networking courses as approved by local Program coordinator

**UNIX/Linux Platform**

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**Cisco Platform**

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**Data Center Platform**

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<td>CIT 171 SQL I</td>
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Informatics Programming – 1101013489
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Informatics Programming Language Pairs

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<td>Intro Program Design, Instruction, and Problem Solving</td>
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<td>CIT 142</td>
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Video Game Design - 1101013519
(Offered at BLC, BSC, HEC, HZC, JFC, SMC)

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<td>3D Modeling for Video Games</td>
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<td>CIT/IMD 233</td>
<td>Computer Animation</td>
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<td>Game Production</td>
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Associate in Applied Science
Computerized Manufacturing & Machining - 4805037019
(Offered at BLC, BSC, ELC, MDC, MYC, OWC, SKY, WKC)

General Education:

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Area 2:

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Electives (Co-op or Practicum)                      | **1**   |

Subtotal                                           | **1**   |

Computerized Manufacturing and Machining

Work activities in machine shop involve applying knowledge of machine capabilities, the properties of materials, and shop practices to set-up and operate various machines. The skills needed to position work pieces, adjust machines, and verify the accuracy of machine functions and finish products are taught by classroom instruction, demonstration, and hands on experience.

Students enrolled in the Computerized Manufacturing & Machining program must achieve a minimum grade of "C" in each technical course.

Diploma
CNC Machinist - 4805034069
(Offered at ASC, BLC, BSC, ELC, GTC, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

General Education:

Area 1:

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Area 2:

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Electives (Co-op or Practicum)                      | **1**   |

Subtotal                                           | **1**   |

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

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<td>CAD/CAM/CNC OR</td>
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**Subtotal:** 48-51

**Total Credits:** 55-58

**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

**Area 2:**

- Social/Behavioral Science, Natural Science or Quantitative Reasoning

**Subtotal:** 3

**Technical:**

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**Subtotal:** 36-39

**Total Credits:** 43-46

**Certificates**

**Exploratory Machining I - 4805033199**

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

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**Subtotal:** 36-39

**Total Credits:** 43-46

**Machine Tool Operator I - 4805033109**

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

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**Subtotal:** 36-39

**Total Credits:** 43-46

**Machine Tool Operator II - 4805033119**

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

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<td>CMM 112</td>
<td>Fundamentals of Machine Tools B OR</td>
<td>3</td>
</tr>
<tr>
<td>CMM 114</td>
<td>Fundamentals of Machine Tools</td>
<td>6</td>
</tr>
<tr>
<td>CMM 130</td>
<td>Manual Programming AND</td>
<td>3</td>
</tr>
<tr>
<td>CMM 132</td>
<td>CAD/CAM/CNC AND</td>
<td>3</td>
</tr>
<tr>
<td>CMM 134</td>
<td>Manual Programming/CAD/CAM/CNC AND</td>
<td>6</td>
</tr>
<tr>
<td>CMM 138</td>
<td>Intro to Programming &amp; CNC Machines</td>
<td>6</td>
</tr>
<tr>
<td>BRX 110</td>
<td>Basic Blueprint Reading for Machinist AND</td>
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</tr>
<tr>
<td>BRX 112</td>
<td>Blueprint Reading for Machinist</td>
<td>4</td>
</tr>
</tbody>
</table>

**Subtotal:** 36-39

**Total Credits:** 43-46
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.

### Associate in Applied Science

**Construction Technology - 4602017029**

(Offered at BLC, ELC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CMM 110</td>
<td>Fundamentals of Machine Tools A AND</td>
<td>3</td>
</tr>
<tr>
<td>CMM 112</td>
<td>Fundamentals of Machine Tools B OR</td>
<td>3</td>
</tr>
<tr>
<td>CMM 114</td>
<td>Fundamentals of Machine Tools</td>
<td>3</td>
</tr>
<tr>
<td>CMM 118</td>
<td>Metrology/Control Charts</td>
<td>2</td>
</tr>
<tr>
<td>CMM 130</td>
<td>Manual Programming AND</td>
<td>3</td>
</tr>
<tr>
<td>CMM 132</td>
<td>CAD/CAM/CNC OR</td>
<td>3</td>
</tr>
<tr>
<td>CMM 134</td>
<td>Manual Programming CAD/CAM/CNC OR</td>
<td>3</td>
</tr>
<tr>
<td>CMM 138</td>
<td>Intro to Programming &amp; CNC Machines</td>
<td>6</td>
</tr>
<tr>
<td>CMM 2301</td>
<td>Intro to Conversational Programming AND</td>
<td>3</td>
</tr>
<tr>
<td>CMM 2302</td>
<td>Conversational Editing and Subroutines OR</td>
<td>3</td>
</tr>
<tr>
<td>CMM 230</td>
<td>Conversational Programming OR</td>
<td>6</td>
</tr>
<tr>
<td>CMM 234</td>
<td>CNC Machines and Coding Practices</td>
<td>6</td>
</tr>
<tr>
<td>BRX 110</td>
<td>Basic Blueprint Reading for Machinist OR</td>
<td>2</td>
</tr>
<tr>
<td>BRX 112</td>
<td>Blueprint Reading for Machinist</td>
<td>2</td>
</tr>
<tr>
<td>MAT 116</td>
<td>Technical Mathematics or</td>
<td>3</td>
</tr>
<tr>
<td>MAT 126</td>
<td>Technical Algebra and Trigonometry or Higher</td>
<td>3</td>
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<tr>
<td>BRX 210</td>
<td>Mechanical Blueprint Reading</td>
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</tr>
<tr>
<td>MAT 116</td>
<td>Technical Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>WLD 151</td>
<td>Basic Welding A OR</td>
<td>2</td>
</tr>
<tr>
<td>IEX 295</td>
<td>Special Problems III</td>
<td>3</td>
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<tr>
<td>Total Credits</td>
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</table>

#### Total Credits 18

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

*Technical Electives: (This list is not all inclusive. Other courses [technical or general education] may be taken as approved by Construction Technology instructor.)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRX 120</td>
<td>Basic Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>CAR 150</td>
<td>Construction Formwork</td>
<td>3</td>
</tr>
<tr>
<td>CAR 151</td>
<td>Construction Formwork - Lab</td>
<td>2</td>
</tr>
<tr>
<td>CAR 198</td>
<td>Special Topics in Construction</td>
<td>1</td>
</tr>
<tr>
<td>CAR 240</td>
<td>Light Frame Const. III Lab</td>
<td>2</td>
</tr>
<tr>
<td>CAR 241</td>
<td>Light Frame Const. IV Lab</td>
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<tr>
<td>Total Credits</td>
<td></td>
<td>60-65</td>
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</table>

### CNC Operator - 4805033129

(Offered at BLC, HPC, JFC, SEC, SMC, WKC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMM 110</td>
<td>Fundamentals of Machine Tools A AND</td>
<td>3</td>
</tr>
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<td>CMM 112</td>
<td>Fundamentals of Machine Tools B OR</td>
<td>3</td>
</tr>
<tr>
<td>CMM 114</td>
<td>Fundamentals of Machine Tools</td>
<td>3</td>
</tr>
<tr>
<td>CMM 118</td>
<td>Metrology/Control Charts</td>
<td>2</td>
</tr>
<tr>
<td>CMM 130</td>
<td>Manual Programming AND</td>
<td>3</td>
</tr>
<tr>
<td>CMM 132</td>
<td>CAD/CAM/CNC OR</td>
<td>3</td>
</tr>
<tr>
<td>CMM 134</td>
<td>Manual Programming CAD/CAM/CNC OR</td>
<td>3</td>
</tr>
<tr>
<td>CMM 138</td>
<td>Intro to Programming &amp; CNC Machines</td>
<td>6</td>
</tr>
<tr>
<td>CMM 2301</td>
<td>Intro to Conversational Programming AND</td>
<td>3</td>
</tr>
<tr>
<td>CMM 2302</td>
<td>Conversational Editing and Subroutines OR</td>
<td>3</td>
</tr>
<tr>
<td>CMM 230</td>
<td>Conversational Programming OR</td>
<td>6</td>
</tr>
<tr>
<td>CMM 234</td>
<td>CNC Machines and Coding Practices</td>
<td>6</td>
</tr>
<tr>
<td>BRX 110</td>
<td>Basic Blueprint Reading for Machinist OR</td>
<td>2</td>
</tr>
<tr>
<td>BRX 112</td>
<td>Blueprint Reading for Machinist</td>
<td>2</td>
</tr>
<tr>
<td>MAT 116</td>
<td>Technical Mathematics or</td>
<td>3</td>
</tr>
<tr>
<td>MAT 126</td>
<td>Technical Algebra and Trigonometry or Higher</td>
<td>3</td>
</tr>
<tr>
<td>BRX 210</td>
<td>Mechanical Blueprint Reading</td>
<td>2</td>
</tr>
<tr>
<td>MAT 116</td>
<td>Technical Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>WLD 151</td>
<td>Basic Welding A OR</td>
<td>2</td>
</tr>
<tr>
<td>IEX 295</td>
<td>Special Problems III</td>
<td>3</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>29-34</td>
</tr>
</tbody>
</table>

#### Total Credits 18

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

### CNC Machining & Waterjet Technology - 4805033189

(Offered at BLC, SEC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMM 138</td>
<td>Intro to Programming and CNC Machines</td>
<td>6</td>
</tr>
<tr>
<td>CMM 234</td>
<td>CNC Machines &amp; Coding Practices</td>
<td>6</td>
</tr>
<tr>
<td>CMM 244</td>
<td>Advance Programming/Coding Practices</td>
<td>6</td>
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<tr>
<td>Total Credits</td>
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<td>18</td>
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</tbody>
</table>

The Green Building Technology certificate familiarizes students with the principles of green building technologies and methods of sustainable construction. Emphasis is placed on green materials used in the construction of buildings along with alternative and/or renewable energy systems. Covers both Leadership in Energy and Environmental Design (LEED) and the National Green Building Standard’s rating systems for the certification process of green buildings.

Progression in the Construction Technology Program is contingent upon achievement of a grade of "C" or better in each technical and mathematics course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).
### General Education Requirements:

<table>
<thead>
<tr>
<th>Area 1:</th>
<th>Written Communication, Oral Communications, or Humanities/Heritage</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area 2:</td>
<td>Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning</td>
<td>3</td>
</tr>
</tbody>
</table>

Subtotal: 6

Note: WPP 200 or EFM 100 may be taken for 3 credit hours of Social/Behavioral Sciences to meet the Diploma General Education requirements.

### Technical Requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<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</td>
<td>3</td>
</tr>
<tr>
<td>CAR 191</td>
<td>Light Frame Const. I-Lab</td>
<td>2</td>
</tr>
<tr>
<td>CAR 196</td>
<td>Light Frame Construction II</td>
<td>3</td>
</tr>
<tr>
<td>CAR 197</td>
<td>Light Frame Const. II-Lab</td>
<td>2</td>
</tr>
<tr>
<td>CAR 201</td>
<td>Light Frame Const. III</td>
<td>3</td>
</tr>
<tr>
<td>CAR 202</td>
<td>Light Frame Const. III-Lab</td>
<td>2</td>
</tr>
<tr>
<td>CAR 298</td>
<td>Practicum in Construction OR</td>
<td>2</td>
</tr>
<tr>
<td>CAR 299</td>
<td>Co-op in Construction</td>
<td>2-4</td>
</tr>
<tr>
<td>ISX 100</td>
<td>Industrial Safety</td>
<td>3</td>
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<td></td>
<td>Technical Electives*</td>
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</table>

Subtotal: 42-47

### Total Credits: 48-53

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

### *Suggested 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 Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRX 120</td>
<td>Basic Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>CAR 150</td>
<td>Construction Formwork</td>
<td>3</td>
</tr>
<tr>
<td>CAR 151</td>
<td>Construction Formwork-Lab</td>
<td>2</td>
</tr>
<tr>
<td>CAR 198</td>
<td>Special Topics in Construction</td>
<td>1-6</td>
</tr>
<tr>
<td>CAR 240</td>
<td>Light Frame Const. IV</td>
<td>3</td>
</tr>
<tr>
<td>CAR 241</td>
<td>Light Frame Const. IV-Lab</td>
<td>2</td>
</tr>
</tbody>
</table>

**Finish Carpenter - 4602014029**

(Offered at JFC)

### General Education Requirements: (6-9 credit hours)

<table>
<thead>
<tr>
<th>Area 1:</th>
<th>Written Communication, Oral Communications, or Humanities/Heritage</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area 2:</td>
<td>Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning</td>
<td>3</td>
</tr>
</tbody>
</table>

Subtotal: 6

Note: WPP 200 or EFM 100 may be taken for 3 credit hours of Social/Behavioral Sciences to meet the Diploma General Education requirements.

### Technical Requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>INF 105</td>
<td>Introduction to Painting</td>
<td>2</td>
</tr>
<tr>
<td>INF 111</td>
<td>Advanced Painting</td>
<td>2</td>
</tr>
<tr>
<td>INF 115</td>
<td>Introduction to Wall covering</td>
<td>2</td>
</tr>
<tr>
<td>INF 121</td>
<td>Advanced Wall Covering</td>
<td>2</td>
</tr>
<tr>
<td>INF 125</td>
<td>Introduction to Drywall</td>
<td>2</td>
</tr>
<tr>
<td>INF 131</td>
<td>Advanced Drywall</td>
<td>2</td>
</tr>
<tr>
<td>INF 205</td>
<td>Introduction to Acoustical Carpentry</td>
<td>3</td>
</tr>
<tr>
<td>INF 211</td>
<td>Advanced Acoustical Carpentry</td>
<td>2</td>
</tr>
</tbody>
</table>

### Total Credits: 30-35

*Note: Digital Literacy must be demonstrated either by competency exam or by completing an approved digital literacy course.

### Certificates

#### Carpenter Helper - 4602013109

(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<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 191</td>
<td>Light Frame Construction I – Floors and Walls (Lab)</td>
<td>2</td>
</tr>
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</table>

Total Credits: 17

#### Construction Forms Helper - 4602013029

(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMC)

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRX 220</td>
<td>Blueprint Reading for Construction</td>
<td>3</td>
</tr>
<tr>
<td>CAR 126</td>
<td>Intro to Construction</td>
<td>3</td>
</tr>
<tr>
<td>CAR 127</td>
<td>Intro to Construction-Lab</td>
<td>1</td>
</tr>
<tr>
<td>CAR 150</td>
<td>Construction Formwork</td>
<td>3</td>
</tr>
<tr>
<td>CAR 151</td>
<td>Construction Formwork-Lab</td>
<td>2</td>
</tr>
<tr>
<td>CAR 190</td>
<td>Light Frame Construction I - Floors and Walls</td>
<td>3</td>
</tr>
<tr>
<td>CAR 191</td>
<td>Light Frame Construction I - Floors and Walls-Lab</td>
<td>2</td>
</tr>
<tr>
<td>CAR 196</td>
<td>Light Frame Construction II - Ceilings and Roofs</td>
<td>3</td>
</tr>
<tr>
<td>CAR 197</td>
<td>Light Frame Construction II - Ceilings and Roofs-Lab</td>
<td>2</td>
</tr>
<tr>
<td>CAR 198</td>
<td>Special Topics in Construction</td>
<td>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 Carpentry Techniques</td>
<td>3</td>
</tr>
<tr>
<td>CAR 241</td>
<td>Light Frame Construction IV - Cabinetry and Trim Carpentry Techniques (Lab)</td>
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</tr>
<tr>
<td>DLC 100</td>
<td>Digital Literacy</td>
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</table>

**Diploma Construction Carpenter - 4602014019**

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

Total Credits: 30-35

#### Technical Electives: (This list is not all inclusive. Other courses [technical or general education] may be taken as approved by Construction Technology Program Coordinator.)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRX 120</td>
<td>Basic Blueprint Reading</td>
<td>(3)</td>
</tr>
<tr>
<td>ISX 100</td>
<td>Industrial Safety</td>
<td>(3)</td>
</tr>
<tr>
<td>CAR 140</td>
<td>Construction Surveying and Foundation Systems</td>
<td>(3)</td>
</tr>
<tr>
<td>CAR 141</td>
<td>Construction Surveying and Foundation Systems-Lab</td>
<td>(2)</td>
</tr>
<tr>
<td>CAR 150</td>
<td>Construction Formwork</td>
<td>(3)</td>
</tr>
<tr>
<td>CAR 151</td>
<td>Construction Formwork-Lab</td>
<td>(2)</td>
</tr>
<tr>
<td>CAR 190</td>
<td>Light Frame Construction I - Floors and Walls</td>
<td>(3)</td>
</tr>
<tr>
<td>CAR 191</td>
<td>Light Frame Construction I - Floors and Walls-Lab</td>
<td>(2)</td>
</tr>
<tr>
<td>CAR 196</td>
<td>Light Frame Construction II - Ceilings and Roofs</td>
<td>(3)</td>
</tr>
<tr>
<td>CAR 197</td>
<td>Light Frame Construction II - Ceilings and Roofs-Lab</td>
<td>(2)</td>
</tr>
<tr>
<td>CAR 198</td>
<td>Special Topics in Construction</td>
<td>(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 Carpentry Techniques</td>
<td>(3)</td>
</tr>
<tr>
<td>CAR 241</td>
<td>Light Frame Construction IV - Cabinetry and Trim Carpentry Techniques (Lab)</td>
<td>(2)</td>
</tr>
<tr>
<td>DLC 100</td>
<td>Digital Literacy</td>
<td>(3)</td>
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</tbody>
</table>

**Diploma Carpentry Helper - 4602013109**

Total Credits: 17

**Diploma Construction Forms Helper - 4602013029**

Total Credits: 18

*Note: TEC 200, PHX 150, EFM 100 and WPP 200 may be used to fill diploma general education requirements only.*
Residential Carpenter - 4602013069
(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMC)

<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 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>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</td>
<td>3</td>
</tr>
<tr>
<td>CAR 241</td>
<td>Light Frame Construction IV – Cabinetry and Trim Carpentry Techniques (Lab)</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Credits 12

*Suggested Technical Electives:
This list is not all inclusive. Other courses (technical or general education) may be taken as approved by Construction Technology Program Coordinator.

BRX 120 Basic Blueprint Reading (3)
BRX 220 Blueprint Reading for Construction (3)
ISX 100 Industrial Safety (3)
CAR 150 Construction Formwork (3)
CAR 151 Construction Formwork Lab (2)
CAR 190 Light Frame Construction I - Floors and Walls (3)
CAR 191 Light Frame Construction I - Floors and Walls (Lab) (2)
CAR 196 Light Frame Construction II - Ceilings and Roofs (3)
CAR 197 Light Frame Construction II – Ceilings and Roofs (Lab) (2)
CAR 198 Special Topics in Construction (1-6)
CAR 200 Light Frame Construction III Exterior and Interior Finish (3)
CAR 201 Light Frame Construction III Exterior and Interior Finish (Lab) (2)
CAR 240 Light Frame Construction IV-Cabinetry and Trim Carpentry Techniques (3)
CAR 241 Light Frame Construction IV-Cabinetry and Trim Carpentry Techniques-Lab (2)
DLC 100 Digital Literacy (3)

**Suggested General Education Electives:**
TEC 200 Technical Communications (3)
COM 181 Basic Public Speaking (3)
COM 252 Intro to Interpersonal Communications (3)
MAT 105 Business Mathematics (3)
MAT 110 Applied Mathematics (3)
MAT 111 Technical Mathematics (3)

PHX 150 Introductory Physics (3)
EFM 100 Personal Financial Management (3)
WPP 200 Workplace Principles (3)

Note: TEC 200, PHX 150, EFM 100 and WPP 200 may be used to fill diploma general education requirements only.

Rough Carpenter - 4602013089
(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMC)

<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>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</td>
<td>3</td>
</tr>
<tr>
<td>CAR 241</td>
<td>Light Frame Construction IV – Cabinetry and Trim Carpentry Techniques (Lab)</td>
<td>2</td>
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</table>

Total Credits 22

Basic Carpenter - 4602013139
(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CAR 126</td>
<td>Intro to Construction</td>
<td>3</td>
</tr>
<tr>
<td>CAR 127</td>
<td>Intro to Construction Lab</td>
<td>1</td>
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<tr>
<td>Electives: Technical Electives</td>
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</tbody>
</table>

Total Credits 9

Acoustical Carpenter - 4602013119
(Offered at BSC, ELC, HZC, JFC, SEC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</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>
</tr>
<tr>
<td>Electives: Technical Electives</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 11

Dry Waller - 4602013039
(Offered at BSC, HZC, 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>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 8

Painter, Interior Finish - 4602013049
(Offered at BSC, HZC, 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>
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</tr>
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</table>

Total Credits 6

Painter, Paper Hanger - 4602013129
(Offered at BSC, HZC, 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>
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</tr>
</tbody>
</table>

Total Credits 8

Green Building Technology - 4602013159
(Offered at HZC, JFC, SEC)

<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>
<td>1</td>
</tr>
<tr>
<td>Electives: Suggested Technical Electives</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 20
Program graduates are eligible to take the examination administered by the Kentucky Board of Hairdressers and Cosmetology to become licensed estheticians.

After successful completion of the prescribed 1000 hours of instruction, program graduates are eligible to take the examination administered by the Kentucky Board of Hairdressers and Cosmetology to become licensed nail technicians.

After successful completion of the prescribed 1800 hours of instruction, 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 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.

**Diploma**

**Cosmetologist - 1204014019**

*(Offered at ASC, BLC, BSC, GTW, HZC, JFC, SMC, WKC)*

**General Education:**

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

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

Subtotal 6

**Technical Courses:**

COS 114 Cosmetology I ................................................. 14
COS 116 Cosmetology II ................................................. 14
COS 218 Cosmetology III .............................................. 14
COS 220 Cosmetology IV .............................................. 12

Subtotal 54

Total Credits 60

**Electives:**

COS 135 Individual Requirements I .................................... 1-8
COS 235 Individual Requirements II ................................... 1-8

**Certificates**

**Cosmetologist - 1204013039**

*(Offered at ASC, BLC, BSC, GTW, HZC, JFC, MYC, SMC, WKC)*

COS 114 Cosmetology I ................................................. 14
COS 116 Cosmetology II ................................................. 14
COS 218 Cosmetology III .............................................. 14
COS 220 Cosmetology IV .............................................. 12

Total Credits 54

**Electives:**

COS 135 Individual Requirements I .................................... 1-8
COS 235 Individual Requirements II ................................... 1-8

**Apprentice Cosmetology Instructor - 1204013019**

*(Offered at ASC, BLC, BSC, GTW, HZC, JFC, MYC, SMC, WKC)*

COS 210 Student Teaching I ........................................... 13
COS 212 Student Teaching II ........................................... 13
COS 214 Student Teaching III ......................................... 13

Total Credits 39

**Electives:**

COS 135 Individual Requirements I .................................... 1-8
COS 235 Individual Requirements II ................................... 1-8

**Nail Technician - 1204013029**

*(Offered at ASC, BLC, HZC, JFC, MYC, SMC)*

COS 150 Basic Nail Tech .................................................. 13
COS 152 Applied Nail Technology ...................................... 13

Total Credits 26

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**Cosmetology**

Knowledge of the theories of hair, skin, and nail care is coupled with practice of the various techniques used in salons.

Any person enrolling in a cosmetology program shall meet KCTCS admission requirements and complete an application for enrollment provided by the 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 cosmetologists.

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 cosmetologists.

**Technical Electives:**

Select a minimum of 10 credit hours. (This list is not all inclusive. Other courses may be taken as approved by Construction Technology Instructor.)

**Cos**

**Technical Courses:**

CAR 126 Introduction to Construction ................................. 1
CAR 190 Light Frame Construction I – Floors and Walls .......... 3
CAR 191 Light Frame Construction II – Ceilings and Roofs ...... 3
CAR 196 Light Frame Construction III – Interior and Finish .... 3
CAR 200 Light Frame Construction III – Exterior and Interior Finish 2
CAR 201 Light Frame Construction III’ Exterior and Interior Finish Lab 2

**NCCER Skills Standard Level I – 4602013169**

*(Offered at HZC, SEC)*

BRX 220 Blueprint Reading for Construction OR ..................... 3
BRX 2201 Basic Construction Prints AND .............................. (1)
BRX 2202 Construction Blueprints ..................................... (2)
CAR 190 Light Frame Construction I – Floors and Walls .......... 3
CAR 191 Light Frame Construction I – Floors and Walls (Lab) .... 2
CAR 196 Light Frame Construction II – Ceilings and Roofs ....... 3
CAR 197 Light Frame Construction II – Ceilings and Roofs (Lab) 2
CAR 200 Light Frame Construction III Exterior and Interior Finish 3
CAR 201 Light Frame Construction III Interior and Interior Finish Lab 2

Total Credits 24-29

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**Technical Courses:**

COS 114 Cosmetology I ................................................. 14
COS 116 Cosmetology II ................................................. 14
COS 218 Cosmetology III .............................................. 14
COS 220 Cosmetology IV .............................................. 12

Subtotal 54

Total Credits 60

**Electives:**

COS 135 Individual Requirements I .................................... 1-8
COS 235 Individual Requirements II ................................... 1-8

**Certificates**

**Cosmetologist - 1204013039**

*(Offered at ASC, BLC, BSC, GTW, HZC, JFC, MYC, SMC, WKC)*

COS 114 Cosmetology I ................................................. 14
COS 116 Cosmetology II ................................................. 14
COS 218 Cosmetology III .............................................. 14
COS 220 Cosmetology IV .............................................. 12

Total Credits 54

**Electives:**

COS 135 Individual Requirements I .................................... 1-8
COS 235 Individual Requirements II ................................... 1-8

**Apprentice Cosmetology Instructor - 1204013019**

*(Offered at ASC, BLC, BSC, GTW, HZC, JFC, MYC, SMC, WKC)*

COS 210 Student Teaching I ........................................... 13
COS 212 Student Teaching II ........................................... 13
COS 214 Student Teaching III ......................................... 13

Total Credits 39

**Electives:**

COS 135 Individual Requirements I .................................... 1-8
COS 235 Individual Requirements II ................................... 1-8

**Nail Technician - 1204013029**

*(Offered at ASC, BLC, HZC, JFC, MYC, SMC)*

COS 150 Basic Nail Tech .................................................. 13
COS 152 Applied Nail Technology ...................................... 13

Total Credits 26
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>
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</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 255</td>
<td>State Government</td>
<td>3</td>
</tr>
<tr>
<td>PSY 110</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 101</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>Elective Courses (Can be Technical or General Education Elective courses)</td>
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Subtotal: 16

Technical Core Requirements:

<table>
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<tr>
<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 102</td>
<td>Introduction to Corrections</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 108</td>
<td>Advanced Firearms and Less Than Lethal Weapons</td>
<td>4</td>
</tr>
<tr>
<td>CRJ 110</td>
<td>Principles of Asset Protection</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 201</td>
<td>Introduction to Criminalistics</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 Recruit 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 Collision 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 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>
<td>1-3</td>
</tr>
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</table>

Subtotal: 9

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>
</tr>
</tbody>
</table>

Subtotal: 3
Track Electives: (Choose 6 credit hours from the following courses)

| CRJ 108 | Advanced Firearms and Less Than Lethal Weapons | 4 |
| CRJ 201 | Introduction to Criminalistics | 3 |
| CRJ 208 | Delinquency and the Juvenile Justice System | 3 |
| CRJ 218 | Police Supervision | 3 |
| CRJ 219 | Police Recruit Defensive Tactics | 4 |
| CRJ 220 | Introduction to Computer Forensics | 3 |
| CRJ 224 | Basic Traffic Collision Investigation | 4 |
| CRJ 225 | Driving and Traffic Enforcement for Law Enforcement | 4 |
| CRJ 230 | Criminal Justice Courtroom Procedures | 3 |
| CRJ 277 | Introduction to Criminology | 3 |
| CRJ 279 | Terrorism and Political Violence | 3 |
| CRJ 290 | Internship in Criminal Justice | 3 |
| CRJ 299 | Selected Topics in Criminal Justice | 1-3 |

Subtotal: 9
Technical Elective | 0-3
Subtotal: 0-3
Total Credits: 61-64

 Corrections Track - 430103703

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

Required:

| CRJ 102 | Introduction to Corrections | 3 |

Subtotal: 3

Track Electives: (Choose 6 credit hours from the following courses)

| CRJ 203 | Community Corrections/Probation & Parole | 3 |
| CRJ 208 | Delinquency and the Juvenile Justice System | 3 |
| CRJ 220 | Introduction to Computer Forensics | 3 |
| CRJ 222 | Prison and Jail Administration | 3 |
| CRJ 231 | Legal Aspects of Corrections | 3 |
| CRJ 277 | Introduction to Criminology | 3 |
| CRJ 290 | Internship in Criminal Justice | 3 |
| CRJ 299 | Selected Topics in Criminal Justice | 1-3 |

Subtotal: 9
Technical Elective | 0-3
Subtotal: 0-3
Total Credits: 61-64

Security and Loss Prevention Track - 430103704

(Offered at ASC, BLC, ELC, GTW, HPC, JFC, MDC, MYC, 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

Certificates

Computer Forensics - 4301033019

(Offered ASC, BLC, ELC, GTW, HPC, MDC, MYC, SEC, SMC, WKC)

| CRJ 100 | Introduction to Criminal Justice | 3 |
| CRJ 204 | Criminal Investigations | 3 |
| CRJ 220 | Introduction to Computer Forensics for Criminal Justice | 3 |
| CRJ 230 | Criminal Justice Courtroom Procedures | 3 |
| CTT 105 | Introduction to Computers | 3 |
| CTT 111 | Computer Hardware and Software | 4 |
| CTT 160 | Introduction to Networking Concepts OR | 4 |
| CTT 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 - 4301033039

(Offered ASC, BLC, ELC, GTW, HPC, MDC, MYC, SEC, SMC, WKC)

| CRJ 102 | 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 |
| CRJ 215 | Introduction to Law Enforcement | 3 |
| CRJ 218 | Police Supervision | 3 |

Total: 15

Law Enforcement – 4301033049

(Offered ASC, BLC, ELC, GTW, HPC, MDC, MYC, SEC, SMC, WKC)

| CRJ 201 | Introduction to Criminalistics | 3 |
| CRJ 204 | Criminal Investigations | 3 |
| CRJ 208 | Delinquency and the Juvenile Justice System | 3 |
| CRJ 211 | Liability and Legal Issues | 3 |
| CRJ 215 | Introduction to Law Enforcement | 3 |
| CRJ 218 | Police Supervision | 3 |

Total: 15

Security and Loss Prevention – 4301033059

(Offered ASC, BLC, ELC, GTW, HPC, MDC, MYC, SEC, SMC, WKC)

| CRJ 110 | Principles of Asset Protection | 3 |
| CRJ 210 | Physical Security Technology & Systems | 3 |
| CRJ 211 | Liability and Legal Issues | 3 |
| CRJ 220 | Introduction to Computer Forensics | 3 |
| CRJ 240 | Introduction to Corporate Security | 3 |

Total: 15

Advanced Law Enforcement – 4301033069

(Offered BLC, MDC, MYC, SEC, SMC)

| CRJ 107 | Introduction to Firearms | 1 |
| CRJ 108 | Advanced Firearms and Less Than Lethal Weapons | 4 |
| CRJ 204 | Criminal Investigations | 3 |
| CRJ 215 | Introduction to Law Enforcement | 3 |
| CRJ 219 | Police Recruit Defensive Tactics | 4 |
| CRJ 224 | Basic Traffic Collision Investigation | 4 |
| CRJ 225 | Driving and Traffic Enforcement for Law Enforcement | 4 |

Total: 21
Culinary Arts

The KCTCS Culinary Arts program is designed to prepare students for careers in the Culinary Arts, Food and Beverage Management, Restaurant Management, Catering, Institutional Food Service, and as Professional Chefs. Course work covers a broad spectrum: the preparation of basic and specialized foods, catering and special event planning, international cuisine, baking and pastry arts, nutrition, sanitation, management techniques and functions, cost control, purchasing and culinary fundamentals. Students work in commercial kitchen/laboratory and dining room through the course of study. The program uses the teaching philosophy of the American Culinary Federation, the Academy of Chefs, the National Restaurant Association Education Foundation, and the American Personal Chef Association. The program competencies are those of the American Culinary Federation.

Progression in the Culinary Arts program is contingent upon achievement of a grade of "C" or better in each CUL and NFS courses.

**Associate in Applied Science**

**Culinary Arts - 1205037029**

(Offered at ASC, ELC, JFC, MYC, SKY, SMC, WKC)

General Education

<table>
<thead>
<tr>
<th>Area</th>
<th>Course Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Written/Oral Communications, Humanities, or Heritage</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning</td>
<td>3</td>
</tr>
</tbody>
</table>

Technical Core

| CUL 100     | Introduction to Culinary Arts OR                            | 2     |
| CUL 105     | Applied Introduction to Culinary Arts                      | 4     |
| CUL 250     | Garde Manger                                                |       |
| CUL 125     | Sanitation and Safety                                       | 2     |
| CUL 211     | Basic Food Production                                       | 4     |
| CUL 215     | Basic Baking                                                | 4     |
| CUL 230     | Basic Nutrition OR                                          | 3     |
| NFS 101     | Human Nutrition and Wellness                                | 3     |
| CUL 240     | Meats, Seafood, and Poultry                                 | 4     |
| CUL 270     | Human Relations Management                                  | 3     |
| CUL 280     | Cost and Control                                            | 3     |
| CUL 285     | Front of the House OR                                       | 4     |
| CUL 290     | Front of the House/Catering                                 | 3     |

| Required Technical Core Hours | 32-36 |

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

Culinary Arts Degree Track - 120503702

(Offered at ASC, ELC, JFC, MYC, SKY, SMC, WKC)

General Education

<table>
<thead>
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<tbody>
<tr>
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<tr>
<td>2</td>
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<td>3</td>
</tr>
</tbody>
</table>

Technical Core

| CUL 100     | Introduction to Culinary Arts OR                            | 2     |
| CUL 105     | Applied Introduction to Culinary Arts                      | 4     |
| CUL 250     | Garde Manger                                                |       |
| CUL 125     | Sanitation and Safety                                       | 2     |
| CUL 211     | Basic Food Production                                       | 4     |
| CUL 215     | Basic Baking                                                | 4     |
| CUL 230     | Basic Nutrition OR                                          | 3     |
| NFS 101     | Human Nutrition and Wellness                                | 3     |
| CUL 240     | Meats, Seafood, and Poultry                                 | 4     |
| CUL 270     | Human Relations Management                                  | 3     |
| CUL 280     | Cost and Control                                            | 3     |
| CUL 285     | Front of the House OR                                       | 4     |
| CUL 290     | Front of the House/Catering                                 | 3     |

| Required Technical Core Hours | 32-36 |

*Food and Beverage Management Degree Track - 120503703*

(Offered at ASC, ELC, JFC, MYC, SKY, SMC, WKC)

General Education

<table>
<thead>
<tr>
<th>Area</th>
<th>Course Description</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Written/Oral Communications, Humanities, or Heritage</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning</td>
<td>3</td>
</tr>
</tbody>
</table>

Technical Core

| BAS 160 | Introduction to Business                                    | 4     |
| 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

<table>
<thead>
<tr>
<th>Area</th>
<th>Course Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Written/Oral Communications, Humanities, or Heritage</td>
<td>3</td>
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<tr>
<td>2</td>
<td>Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning</td>
<td>3</td>
</tr>
</tbody>
</table>

Technical Core

| BAS 220 | Advanced Baking and Pastry Arts                             | 4     |
| BAS 170 | Entrepreneurship AND                                        | 3     |
| BAS 295 | Doing Business as a Personal Chef OR                        | 3     |
| BAS 160 | Introduction to Business AND                                | 3     |
| BAS 283 | Principles of Management                                    | 3     |
| CUL 298 | Culinary Arts Practicum Experience OR                       | 2-3   |
| CUL 299 | Culinary Arts Cooperative Education Experience              | 2-3   |

Total Hours 62-67

**Diplomas**

**Culinary Arts - 1205034029**

(Offered at ASC, BSC, ELC, MYC, SKY, SMC, WKC)

General Education*

<table>
<thead>
<tr>
<th>Area 1</th>
<th>Course Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Written/Oral Communications, Humanities, or Heritage</td>
<td>3</td>
</tr>
<tr>
<td>Area 2</td>
<td>Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning</td>
<td>3</td>
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</table>

Subtotal 6

*If a diploma is sought, two of the three following courses may be used for the six (6) hours general education. These courses will not count toward the AAS degree:

WPP 200  Workplace Principles (Area 2) OR ........................................ 3

EFM 100  Personal Financial Management (Area 2) .................................. 3

TEC 200  Technical Communications (Area 1) ........................................ 3

Technical or Support Courses

<table>
<thead>
<tr>
<th>Area</th>
<th>Course Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Technical Core</td>
<td>32-36</td>
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<tr>
<td>CUL 220</td>
<td>Advanced Baking and Pastry Arts</td>
<td>4</td>
</tr>
<tr>
<td>CUL 260</td>
<td>International and Classical Cuisine</td>
<td>4</td>
</tr>
<tr>
<td>CUL 298</td>
<td>Culinary Arts Practicum Experience OR</td>
<td>2-3</td>
</tr>
<tr>
<td>CUL 299</td>
<td>Culinary Arts Cooperative Education Experience</td>
<td>2-3</td>
</tr>
</tbody>
</table>

Technical/Support Total 42-47

Total Hours for Culinary Arts Diploma 48-53

**Food and Beverage Management - 1205034039**

(Offered at ASC, BSC, ELC, MYC, SKY, SMC, WKC)

General Education*

<table>
<thead>
<tr>
<th>Area 1</th>
<th>Course Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Written/Oral Communications, Humanities, or Heritage</td>
<td>3</td>
</tr>
<tr>
<td>Area 2</td>
<td>Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning</td>
<td>3</td>
</tr>
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</table>

Subtotal 6
### General Education

* If a diploma is sought, two of the following courses may be used for the (6) hours general education. These courses will not count toward the AAS degree:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>WPP 200</td>
<td>Workplace Principles (Area 2) OR</td>
<td>3</td>
</tr>
<tr>
<td>EFM 100</td>
<td>Personal Financial Management (Area 2)</td>
<td>3</td>
</tr>
<tr>
<td>TEC 200</td>
<td>Technical Communications (Area 1)</td>
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</table>

#### Technical or Support Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BAS 170</td>
<td>Entrepreneurship OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 282</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>CUL 298</td>
<td>Culinary Arts Practicum Experience OR</td>
<td>2-3</td>
</tr>
<tr>
<td>CUL 299</td>
<td>Culinary Arts Cooperative Education</td>
<td>2</td>
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</tbody>
</table>

Technical/Support Total: 43-48

#### Catering and Personal Chef - 1205034019

(Offered at ASC, BSC, ELC, MYC, SMC, WKC)

- **Technical Core**: 32-36
- **Written/Oral Communications, Humanities, or Heritage**: 3
- **Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning**: 3

Subtotal: 6

---

### Certificates

#### Fundamentals of Culinary Arts - 1205033029

(Offered at ASC, BSC, ELC, JFC, MYC, OWC, SKY, SMC, WKC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUL 100</td>
<td>Introduction to Culinary Arts OR</td>
<td>2</td>
</tr>
<tr>
<td>CUL 105</td>
<td>Applied Introduction to Culinary Arts</td>
<td>2</td>
</tr>
<tr>
<td>CUL 250</td>
<td>Garde Manger</td>
<td>4</td>
</tr>
<tr>
<td>CUL 125</td>
<td>Sanitation and Safety</td>
<td>2</td>
</tr>
<tr>
<td>CUL 211</td>
<td>Basic Food Production</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Hours: 16

#### Catering - 1205033059

(Offered at ASC, BSC, ELC, JFC, MYC, OWC, SKY, SMC, WKC)

<table>
<thead>
<tr>
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<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>CUL 100</td>
<td>Introduction to Culinary Arts OR</td>
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</tr>
<tr>
<td>CUL 105</td>
<td>Applied Introduction to Culinary Arts</td>
<td>2</td>
</tr>
<tr>
<td>CUL 250</td>
<td>Garde Manger</td>
<td>4</td>
</tr>
<tr>
<td>CUL 125</td>
<td>Sanitation and Safety</td>
<td>2</td>
</tr>
<tr>
<td>CUL 211</td>
<td>Basic Baking</td>
<td>4</td>
</tr>
<tr>
<td>CUL 290</td>
<td>Front of the House/Catering</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Hours: 16

#### Advanced Catering - 1205033079

(Offered at ASC, BSC, ELC, JFC, MYC, OWC, SKY, SMC, WKC)

- **Culinary Arts Technical Core**: 32-36
- **Total Hours**: 41-44

#### Culinary Arts - 1205033049

(Offered at ASC, BSC, ELC, JFC, MYC, OWC, SKY, SMC, WKC)

- **Culinary Arts Technical Core**: 32-36
- **Culinary Arts Degree Track Courses**: 10-11
- **Total Hours**: 42-47

#### Food and Beverage Management - 1205033039

(Offered at ASC, BSC, ELC, JFC, MYC, OWC, SKY, SMC, WKC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUL 100</td>
<td>Introduction to Culinary Arts OR</td>
<td>2</td>
</tr>
<tr>
<td>CUL 105</td>
<td>Applied Fundamentals of the Culinary Arts Profession</td>
<td>2</td>
</tr>
<tr>
<td>CUL 125</td>
<td>Sanitation and Safety</td>
<td>2</td>
</tr>
<tr>
<td>CUL 211</td>
<td>Basic Food Production</td>
<td>4</td>
</tr>
<tr>
<td>CUL 215</td>
<td>Basic Baking</td>
<td>4</td>
</tr>
<tr>
<td>CUL 230</td>
<td>Basic Nutrition OR</td>
<td>3</td>
</tr>
<tr>
<td>CUL 240</td>
<td>Meats, Seafood, and Poultry</td>
<td>4</td>
</tr>
<tr>
<td>CUL 260</td>
<td>Human Nutrition and Wellness</td>
<td>3</td>
</tr>
<tr>
<td>CUL 270</td>
<td>Meats, Seafood, and Poultry</td>
<td>4</td>
</tr>
<tr>
<td>CUL 280</td>
<td>Cost and Control</td>
<td>3</td>
</tr>
<tr>
<td>CUL 290</td>
<td>Front of the House/Catering</td>
<td>4</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
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<td>BAS 170</td>
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<td>BAS 283</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 282</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BAS 281</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Hours: 31-34

Digital Literacy must be demonstrated either by competency exam or by completing a computer/digital literacy course.
Culinary Arts Professional Development - 1205033099
(Offered at SKY, SMC, WKC)
CUL Students may choose 12 credit hours from any Culinary Arts courses*
Total Hours 12
*Prerequisites apply

Baking - 1205033109
(Offered at ASC, MYC, SKY, SMC, WKC)
CUL 100 Introduction to Culinary Arts . . OR 2
CUL 105 Applied Introduction to Culinary Arts ....................... (2)
CUL 125 Sanitation and Safety ........................................... 2
CUL 215 Basic Baking ........................................................ 4
CUL 220 Advanced Baking................................................... 4
Total Hours 12

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

BIO 137 Human Anatomy & Physiology I* ......................... 4
BIO 139 Human Anatomy & Physiology II* ..................... 4
BIO 226 Principles of Microbiology ..................................... 3
PSY 110 General Psychology .............................................. 3
SOC 101 Introduction to Sociology ..................................... 3
Heritage/Humanities ....................................................... 3
Written Communication .................................................. 3
Oral Communications ..................................................... 3
Subtotal Credits 29

Technical Courses

DHP 120 Dental Hygiene I** ............................................. 4
DHP 122 Dental Nutrition .................................................. 2
DHP 130 Dental Hygiene II ................................................ 3
DHP 131 Oral Biology II ................................................... 5
DHP 135 Dental Radiology ................................................ 3
DHP 136 Periodontics I ..................................................... 2
DHP 220 Dental Hygiene III .............................................. 3
DHP 222 Special Needs Patients ......................................... 3
DHP 224 Dental Materials .................................................. 2
DHP 226 Periodontics II .................................................... 2
DHP 230 Dental Hygiene IV ............................................... 3
DHP 235 Principles of Practice .......................................... 1
DHP 238 Community Dental Health ................................... 3
Subtotal Credits 39

Total Program Credits 68

Recommended Electives (Not Required)

DHP 229 Local Anesthesia ................................................ (2)
DHP 299 Independent Study Dental Hygiene ....................... (1-4)
ENG 102 Writing II ......................................................... (3)
NFS 101 Human Nutrition and Wellness ............................ (3)

**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 auxiliaries.

The Dental Assisting program prepares the student to function as a dental assistant under the supervision of a dentist. As a member of the dental health team, the dental assistant is responsible for providing such services as assisting the dentist with operative and surgical procedures, manipulation of dental materials, taking radiographs, providing oral health instructions and performing office management tasks.

Dental Assisting students will be awarded a Diploma in Dental Assisting and will be eligible to take the Dental Assisting National Board (DANB). Graduates will also be certified in radiation health and safety, coronal polishing and expanded duties (lab competency). The dental assisting curriculum includes courses in general education as well as dental assisting as required by the Commission on Dental Accreditation. The program provides comprehensive educational experiences through lectures, clinical externship rotations, laboratory and related study. Students must achieve a minimum grade of “C” in each Dental Assisting (DAS) course, Dental Assisting/Hygiene (DAH) course, and approved science courses.

The Dental Hygiene Program prepares the student to function as a dental hygienist on a dental auxiliary team under the supervision of a dentist. The curriculum includes content areas in general studies, biomedical sciences, dental sciences, clinical sciences, radiography, periodontology, and dental hygiene clinical experience. The program provides comprehensive educational experiences through lectures, clinical, and related study in order that graduates may apply scientific knowledge in the performance of dental hygiene procedures. Students must achieve a minimum grade of “C” in each Dental Hygiene (DHG) course, Dental Assisting/Hygiene (DAH) course, and approved science courses. Upon completion, graduates are eligible to apply to take the Dental Hygiene National Board Examination. As the only licensed dental auxiliaries, dental hygienists may be employed in dental offices, clinics, dental schools, public health and government agencies.

The programs are accredited by the Commission on Dental Accreditation, a specialized accrediting body of the American Dental Association. The commission is nationally recognized by the U.S. Department of Education to accredit dental and dental related educational programs at the post-secondary level.
**Associate in Applied Science**

**Dental Hygiene - 5106027040**

*(Offered in 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:**
- ENG 101 Writing I .................................................. 3
- ENG 102 Writing II .................................................. 3
- BIO 137 Human Anatomy & Physiology I .................. 4
- BIO 139 Human Anatomy & Physiology II .................. 4
- BIO 225 Medical Microbiology ..................................... 4
- PSY 110 General Psychology ......................................... 3
- SOC 101 Introductory Sociology ....................................... 3
- MAT 110 Applied Mathematics OR ................................. 3
- MAT 150 College Algebra and Functions ........................ 3
- Oral Communications .................................................. 3
- Heritage/Humanities .................................................. 3
- **Subtotal** ......................................................... 33

**Integrated Classes:**
- DAH 101 Infection Control and Medical Emergencies ........... 2
- DAH 121 Dental Sciences ............................................. 3
- DAH 124 Materials in Dentistry ...................................... 2
- DAH 131 Oral Pathology .............................................. 3
- DAH 135 Oral Radiology ............................................... 3
- DAH 235 Practice Management ........................................ 1
- **Subtotal** ......................................................... 13

**Dental Hygiene Only Classes:**
- DHG 120 Pre-Clinical Dental Hygiene ............................. 3
- DHG 130 Clinical Dental Hygiene I ............................... 3
- DHG 132 Pharmacology ............................................... 2
- DHG 134 Dental Nutrition ............................................. 2
- DHG 136 Periodontology ............................................. 1
- DHG 220 Clinical Dental Hygiene II ................................ 4
- DHG 226 Advanced Periodontology ................................ 2
- DHG 230 Clinical Dental Hygiene III ................................ 3
- DHG 238 Community Dental Health Issues ....................... 2
- **Subtotal** ......................................................... 22

**Total Credit Hours** ................................................ 68

**Elective**
- DHG 221 Local Anesthesia and Nitrous Oxide Sedation .......... 2

**Diploma**

**Dental Assisting - 5106024019**

*(Offered in West Consortium – Credential granted by Ashland CTC, Big Sandy CTC, West KY CTC but also taught at Henderson CC)*

**General Education Classes:**
- BIO 135 Basic Anatomy & Physiology with Laboratory OR ....... 4
- BIO 137 Human Anatomy & Physiology I AND .................... (4)
- BIO 139 Human Anatomy & Physiology II .......................... (4)
- Three credits from Written Communication, Oral Communications, or Heritage/Humanities .................. 3
- PSY 110 General Psychology ............................................ (3)

*Required at Bluegrass CTC, recommended at West Kentucky CTC*

**Subtotal** ......................................................... 7-14

**Integrated Classes**
- DAH 101 Infection Control and Medical Emergencies .......... 2
- DAH 121 Dental Sciences ............................................. 3
- DAH 124 Materials in Dentistry ...................................... 2
- DAH 131 Oral Pathology ............................................... 3
- DAH 135 Oral Radiology ............................................... 2
- DAH 235 Practice Management ........................................ 1
- **Subtotal** ......................................................... 13

**Dental Assisting Only Classes**
- DAS 125 Dental Assisting I ........................................... 6
- DAS 130 Seminar I ..................................................... 2
- DAS 225 Dental Assisting II .......................................... 2
- DAS 230 Seminar II ................................................... 1
- DAS 245 Preventive Dentistry ......................................... 2
- **Subtotal** ......................................................... 18

**Total Credit Hours** ................................................ 38-45

**Diagnostic Medical Sonography**

Diagnostic Medical Sonography is a highly-skilled profession which uses specialized equipment to create images of structures inside the human body used by physicians to make medical diagnoses. Graduates of the program are qualified to provide patient services using diagnostic techniques under the supervision of a licensed physician.

This program contains four tracks, the general/vascular track, the general track, the vascular track and the cardiac track. The general/vascular track prepares the graduate to be a general sonographer who is qualified to perform vascular ultrasound. Sonographers have extensive, direct patient contact that may include performing some invasive procedures. The general track prepares the graduate to perform sonograms on the abdominal, small parts and OB/GYN applications. The vascular track prepares the graduate to perform sonograms of the cerebrovascular, peripheral arterial, peripheral venous and abdominal vascular applications. The cardiac track prepares the graduate to perform cardiovascular sonograms.

Sectional anatomy, ultrasonic instrumentation and imaging are the major components in this program. Skills are developed through clinical experiences using diagnostic imagery equipment.

An advanced option (certificate) in vascular sonography is offered for candidates who are currently employed and registry eligible in Diagnostic Medical Sonography.

The student is exposed to and expected to acquire skills, attitudes, and habits that are generally common to all professionals in the medical field. Graduates will be prepared for a professional career in the opted sonography field.

CPR requirement must be successfully completed prior to enrolling in the first sonography course and must be kept current throughout the program. Documentation of successful completion of a minimum 75 hour nursing assistant course or its equivalent and digital literacy competency as defined by KCTCS are required prior to enrolling in the first sonography course.

Progression in the Diagnostic Medical Sonography program is contingent upon achievement of a grade of "C" or better in each Sonography course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Transportation to the community agencies is the responsibility of each student.

Note: Hours Exception (67-76 for the A.A.S) approved by the KCTCS Board of Regents in June 2010.
### Academic Curricula

#### Associate in Applied Science

**Diagnostic Medical Sonography - 5109107019**
*(Offered at ELC, HZC, SKY, WKC)*

**General Education:**
- MAT 130 College Algebra or higher mathematics course ............................................. 3
- ENG 101 Writing I ........................................................................................................ 3
- Heritage/Humanities ................................................................................................. 3
- Social/Behavioral Sciences .................................................................................... 3
- BIO 137 Human Anatomy and Physiology I AND ......................................................... 4
- BIO 139 Human Anatomy and Physiology II OR ....................................................... 4
- BIO 135 Basic Anatomy and Physiology with Laboratory ........................................... 4
- PHY 151 Introductory Physics I OR ............................................................................ 3
- PHY 152 Introductory Physics II OR ........................................................................... 3
- PHY 171 Applied Physics ......................................................................................... 4

**A total of 17 credit hours must be completed from the following clinical courses:** 17
- AHS 120 Medical Terminology .................................................................................. 1
- DMS 109 Sonography I .................................................................................................. 7
- DMS 115 Sonography II ............................................................................................ 6
- DMS 119 Ultrasonic Physics and Instrumentation ....................................................... 6
- DMS 199 Online Physics Review AND/OR ................................................................ 1
- DMS 201 Online Abdomen Review AND/OR ............................................................... 1
- DMS 202 Online OB/GYN Review ............................................................................. 1
- DMS 255 Vascular Technology .................................................................................. 6
- DMS 260 Vascular Clinical Education ....................................................................... 6

**Total** 69-76

### General/Vascular Sonography Track – 510910705
*(Offered at ELC, HZC, WKC)*

- AHS 120 Medical Terminology .................................................................................. 1
- DMS 109 Sonography I ............................................................................................ 7
- DMS 115 Sonography II ............................................................................................ 6
- DMS 119 Ultrasonic Physics and Instrumentation ....................................................... 6
- DMS 199 Online Physics Review AND/OR ................................................................ 1
- DMS 201 Online Abdomen Review AND/OR ............................................................... 1
- DMS 202 Online OB/GYN Review ............................................................................. 1
- DMS 255 Vascular Technology .................................................................................. 6
- DMS 260 Vascular Clinical Education ....................................................................... 6

**A total of 17 credit hours must be completed from the following clinical courses:** 17
- DMS 126 Clinical Education I .................................................................................... 3
- DMS 230 Clinical Education II ................................................................................... 5
- DMS 240 Clinical Education III ................................................................................... 5

**Subtotal** 50-52

**Total** 69-76

### General Sonography Track - 510910706
*(Offered at ELC, HZC, SKY, WKC)*

- AHS 120 Medical Terminology .................................................................................. 1
- NAA 100 Nursing Assistant Skills OR ...................................................................... 3
- HST 101 Basic Skills ................................................................................................ 3
- DMS 111 Abdominal Sonography ............................................................................... 7
- DMS 116 OB/GYN Sonography ................................................................................. 6
- DMS 121 Sonography Physics and Instrumentation ..................................................... 6
- DMS 199 Online Physics Review ............................................................................... 1
- DMS 201 Online Abdomen Review .......................................................................... 1
- DMS 202 Online OB/GYN Review .......................................................................... 1

**A total of 17 credit hours must be completed from the following clinical courses:** 17
- DMS 126 Clinical Education I .................................................................................... 3
- DMS 230 Clinical Education II ................................................................................... 5
- DMS 240 Clinical Education III ................................................................................... 5

**Subtotal** 43

**Total** 62-67

### Vascular Sonography Track – 510910707
*(Offered at ELC)*

- AHS 120 Medical Terminology .................................................................................. 1
- DMS 117 Vascular Sonography I .................................................................................. 7
- DMS 118 Vascular Sonography II .............................................................................. 6
- DMS 121 Sonography Physics and Instrumentation ..................................................... 6
- DMS 136 Vascular Clinical Education I .................................................................... 4
- DMS 199 Online Physics Review ............................................................................... 1

**Total** 42

### Certificates

#### Basic Vascular Sonography Technology – 5109103069
*(Offered at SKY)*

- DMS 280 Basic Vascular Technology ....................................................................... 3

**Total** 3

#### Cardiac Sonography – 5109103079
*(Offered at ELC)*

- DMS 105 Introduction to Cardiology ......................................................................... 13
- DMS 145 Cardiac Sonography I ................................................................................ 12
- DMS 205 Cardiac Sonography II .............................................................................. 6
- DMS 215 Cardiac Sonography III ............................................................................. 6
- DMS 243 Cardiac Sonography IV ............................................................................. 6

**Total** 43
Diesel Technology

Emphasizes the skills needed to analyze malfunctions and repair, rebuild and maintain construction equipment, agriculture equipment, or medium and heavy trucks in this program of study. Provides instruction and experience in systems such as diesel engines, fuel injection, onboard computers, transmissions, steering and suspension, and brakes.

A student must receive a grade of “C” or better to receive credit for successful completion of courses in the diesel technology curriculum.

Associate in Applied Science

Diesel Technology - 4706057039
(Offered at ELC, HPC, OWC, SEC)

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

Technical Core:
BEX 100 Basic Electricity for Non-Majors AND .................. 3
BEX 101 Basic Electricity Lab for Non-Majors OR ............... 2
ADX 120 Basic Automotive Electricity AND ........................ (3)
ADX 121 Basic Automotive Electricity Lab OR ..................... (2)
ELT 110 Circuits I ...................................................... 5
ADX 170 Climate Control .............................................. 3
ADX 171 Climate Control Lab ......................................... 1
DIT 103 Preventive Maintenance Lab ................................. 2
DIT 110 Introduction to Diesel Engines AND ..................... 3
DIT 111 Introduction to Diesel Engines Lab OR ................... 2
ADX 150 Engine Repair AND ......................................... (3)
ADX 151 Engine Repair Lab ........................................... (2)
DIT 112 Diesel Engine Repair ......................................... 3
DIT 113 Diesel Engine Repair Lab .................................... 2
DIT 140 Hydraulics AND .............................................. 3
DIT 141 Hydraulics Lab OR ........................................... 2
FPX 100 Fluid Power AND ........................................... (3)
FPX 101 Fluid Power Lab ............................................... (2)
DIT 150 Power Trains .................................................. 3
DIT 151 Power Trains Lab ............................................. 2
DIT 190 Electrical Systems for Diesel Equipment AND ....... 3
DIT 191 Electrical Systems for Diesel Equipment Lab OR ...... 2
ADX 260 Electrical Systems AND ................................... (3)
ADX 261 Electrical Systems Lab ..................................... (2)
Subtotal 39

NOTE: Computer/Digital Literacy must be demonstrated either by competency exam or by completing a computer/digital literacy course. If demonstrated by a competency exam, an additional three credit hour course must be taken.

Construction Equipment Technician Track - 470605702
(Offered at OWC, SEC)

DIT 121 Introduction to Maintenance Welding Lab OR ........ 3
IMT 100 Welding for Maintenance AND ............................ (3)
IMT 101 Welding for Maintenance Lab OR ........................ (2)
WLD 120 Shielded Metal Arc-Welding (SMAW) AND .......... (3)
WLD 121 Shielded Metal Arc-Welding (SMAW) Lab .......... (2)
DIT 123 Undercarriage Lab ........................................... 3
DIT 152 Powertrain for Construction Equipment ............... 3
DIT 153 Powertrain for Construction Equipment Lab .......... 2
Subtotal 11-13
Total 65-67

Recommended Technical Electives (Program Coordinator Approval required)

DIT 180 Brakes ......................................................... 3
DIT 181 Brakes Lab .................................................... 2
DIT 160 Steer and Suspension ....................................... 3
DIT 161 Steer and Suspension Lab .................................. 2
IMT 101 Welding for Maintenance Lab OR ........................ (2)
WLD 120 Shielded Metal Arc-Welding (SMAW) AND .......... (3)
WLD 121 Shielded Metal Arc-Welding (SMAW) Lab .......... (2)
DIT 123 Undercarriage Lab ........................................... 3
DIT 152 Powertrain for Construction Equipment ............... 3
DIT 153 Powertrain for Construction Equipment Lab .......... 2
DIT 105 Mechanical Concepts OR ................................... 1
PMX 100 Precision Measurement .................................... (3)
DIT 191 Special Problems I .......................................... 1
DIT 195 Special Problems II ......................................... 2
DIT 197 Special Problems III ......................................... 3
DIT 198 Practicum ...................................................... 1
DIT 199 Practicum II ................................................. 2
DIT 299 Cooperative Education ..................................... 2
DIT 299 Cooperative Education II .................................. 2
(Or other courses as approved by the Program Coordinator that will prepare the student for entry into the workforce)

Diplomas

Agriculture Equipment Technician - 4706054039
(Offered at ASC, BSC, HPC, MYC, OWC, SEC, SMC, WKC)

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

Technical Courses
Computer/Digital Literacy course OR demonstrated competency .............................................. 0-3
ADX 170 Climate Control ............................................. 3
ADX 171 Climate Control Lab ........................................ 1
BEX 100 Basic Electricity for Non-Majors AND .................. 3
BEX 101 Basic Electricity Lab for Non-Majors OR ............... 2
ADX 120 Basic Automotive Electricity AND ........................ (3)
ADX 121 Basic Automotive Electricity Lab OR ..................... (2)

### General Education

**Area 1 =** Written Communication, Oral Communications, or ELT 110 Circuits I ............................................................. (5)

**Area 2 =** Social/Behavioral Sciences, Natural Sciences or ADX 170 Climate Control ....................................................... 3

**Subtotal** 44-49

### Technical Courses

1. **Computer/Digital Literacy course OR demonstrated competency** .................................................. 0-3
2. **Climate Control** ....................................................... 3
3. **Basic Electricity for Non-Majors AND** ........................................ 3
4. **Basic Automotive Electricity AND** ........................................ 3
5. **Basic Electrical Systems AND** ........................................ 3
6. **Basic Hydraulic Systems AND** ........................................ 3
7. **Preventive Maintenance Lab** ........................................ 2
8. **Introduction to Diesel Engines AND** ........................................ 3
9. **Introduction to Diesel Engines Lab OR** ........................................ 2
10. **Engine Repair AND** .................................................. 3
11. **Engine Repair Lab** .................................................. 2
12. **Power Train Lab** .................................................. 3
13. **Power Train Lab** .................................................. 3
14. **Powertrain for Construction Equipment** ........................................ 3
15. **Hydraulic Systems AND** ........................................ 3
16. **Powertrain for Construction Equipment Lab** ........................................ 2
17. **Hydraulic Systems AND** ........................................ 3
18. **Power Train Lab** .................................................. 2
19. **Steering and Suspension** ........................................ 3
20. **Steering and Suspension** ........................................ 3
21. **Brakes** .................................................. 3
22. **Brakes Lab** .................................................. 2
23. **Introduction to Diesel Engines Lab OR** ........................................ 2
24. **Special Problems I** .................................................. 3
25. **Special Problems II** .................................................. 3
26. **Special Problems III** .................................................. 3

**Total** 50-55

### Subtotal 46-49

**Total** 52-55

**Recommended Technical Electives (Program Coordinator Approval required)**

- **Brakes** .................................................. 3
- **Steering and Suspension** ........................................ 3
- **Steering and Suspension** ........................................ 3
- **Introduction to Maintenance Welding Lab OR** ........................................ 3
- **Welding for Maintenance AND** ........................................ 3
- **Welding for Maintenance Lab OR** ........................................ 2
- **Shielded Metal Arc Welding (SMAW) AND** ........................................ 3
- **Shielded Metal Arc Welding (SMAW) Lab** ........................................ 2
- **Undercarriage Lab** .................................................. 3
- **Powertrain for Construction Equipment** ........................................ 3
- **Powertrain for Construction Equipment Lab** ........................................ 2
- **Mechanical Concepts OR** .................................................. 1
- **Precision Measurement** .................................................. 3
- **Special Problems I** .................................................. 1
- **Special Problems II** .................................................. 2
- **Special Problems III** .................................................. 3

**Total** 53-58

### Medium and Heavy Truck Technician - 4706054049

(Offered at ASC, BSC, ELC, GTW, HZC, MYC, OWC, SEC, WKC)

### General Education

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

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

**Subtotal** 6

### Technical Courses

- **Computer/Digital Literacy course OR demonstrated competency** .................................................. 0-3
- **Climate Control** ....................................................... 3
- **Basic Electricity for Non-Majors AND** ........................................ 3
- **Basic Automotive Electricity AND** ........................................ 3
- **Basic Automotive Electricity AND** ........................................ 3
- **Circuits I** .................................................. (5)
- **Preventive Maintenance Lab** ........................................ 2
- **Introduction to Diesel Engines AND** ........................................ 3
- **Introduction to Diesel Engines Lab OR** ........................................ 2
- **Engine Repair AND** .................................................. (3)
- **Engine Repair Lab** .................................................. (2)
- **Diesel Engine Repair Lab** .................................................. 2
- **Hydraulics AND** .................................................. 3
- **Hydraulics Lab OR** .................................................. 2
- **Engine Repairs AND** .................................................. (3)
- **Engine Repairs Lab** .................................................. (2)
- **Power Train Lab** .................................................. 2
- **Steering and Suspension** ........................................ 3
- **Brakes** .................................................. 3
- **Brakes Lab** .................................................. 2
- **Introduction to Maintenance Welding Lab OR** ........................................ 3
- **Welding for Maintenance AND** ........................................ 3
- **Welding for Maintenance Lab OR** ........................................ 2
- **Shielded Metal Arc Welding (SMAW) AND** ........................................ 3
- **Shielded Metal Arc Welding (SMAW) Lab** ........................................ 2
- **Undercarriage Lab** .................................................. 3
- **Powertrain for Construction Equipment** ........................................ 3
- **Powertrain for Construction Equipment Lab** ........................................ 2
- **Mechanical Concepts OR** .................................................. 1
- **Precision Measurement** .................................................. 3
- **Special Problems I** .................................................. 1
- **Special Problems II** .................................................. 2
- **Special Problems III** .................................................. 3

**Total** 53-58
Certificate

Agriculture Equipment Mechanic Helper - 4706053109
(Offered at ASC, BSC, HPC, MYC, OWC, SEC, SMC, WKC)

- ADX 150 Engine Repair AND ..................................................3
- ADX 151 Engine Repair Lab OR ...............................................2
- DIT 110 Introduction to Diesel Engines AND ....................................(3)
- DIT 111 Introduction to Diesel Engines Lab .....................................(3)
- ADX 260 Electrical Systems AND ................................................2
- ADX 261 Electrical Systems Lab OR ............................................(3)
- DIT 190 Electrical Systems for Diesel Equipment AND .........................(3)
- DIT 191 Electrical Systems for Diesel Equipment Lab ...............................(2)
- DIT 112 Diesel Engine Repair ..................................................3
- DIT 113 Diesel Engine Repair Lab ................................................2
- DIT 152 Powertrain for Construction Equipment ..................................2
- DIT 153 Powertrain for Construction Equipment Lab ..............................2

Total 20

Construction Equipment Mechanic Helper - 4706053019
(Offered at ASC, BSC, HZC, MYC, OWC, SEC, WKC)

- ADX 150 Engine Repair AND ..................................................3
- ADX 151 Engine Repair Lab OR ...............................................2
- DIT 110 Introduction to Diesel Engines AND ....................................(3)
- DIT 111 Introduction to Diesel Engines Lab .....................................(3)
- ADX 260 Electrical Systems AND ................................................2
- ADX 261 Electrical Systems Lab OR ............................................(3)
- DIT 190 Electrical Systems for Diesel Equipment AND .........................(3)
- DIT 191 Electrical Systems for Diesel Equipment Lab ...............................(2)
- DIT 112 Diesel Engine Repair ..................................................3
- DIT 113 Diesel Engine Repair Lab ................................................2
- DIT 152 Powertrain for Construction Equipment ..................................2
- DIT 153 Powertrain for Construction Equipment Lab ..............................2
- DIT 123 Undercarriage Lab ..........................................................3

Total 23

Diesel Engine Mechanic - 4706053079
(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC, WKC)

- DIT 110 Introduction to Diesel Engines AND ....................................3
- DIT 111 Introduction to Diesel Engines Lab .....................................2
- ADX 150 Engine Repair AND ..................................................(3)
- ADX 151 Engine Repair Lab ....................................................(3)
- DIT 112 Diesel Engine Repair ..................................................3
- DIT 113 Diesel Engine Repair Lab ................................................2

Electives (Diesel Courses/Industrial Education Core) ..................................2

Total 12

Diesel Mechanics Assistant - 4706053189
(Offered at ASC, BSC, ELC, HZC, MYC, OWC, SEC, SMC, WKC)

- DIT 103 Preventive Maintenance Lab .............................................2
- DIT 110 Introduction to Diesel Engines ..........................................3
- DIT 111 Introduction to Diesel Engines Lab .....................................2
- DIT 112 Diesel Engine Repair ..................................................3
- DIT 113 Diesel Engine Repair Lab ................................................2
- DIT 120 Steering and Suspension ..................................................3
- DIT 160 Steering and Suspension Lab .............................................2
- DIT 180 Brakes ...........................................................................3
- DIT 181 Brakes Lab .................................................................2
- DIT 190 Electrical Systems for Diesel Equipment ..................................3
- DIT 191 Electrical Systems for Diesel Equipment Lab ..............................2

Total 27

Diesel Steer and Suspension Mechanic - 4706053179
(Offered at ASC, BSC, ELC, GTW, HZC, MYC, OWC, SEC, SMC, WKC)

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

Electives (Diesel Courses/Industrial Education Core) ..................................2

Total 12

Electrical/Electronics Systems Mechanic - 4706053059
(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC, WKC)

- BEX 100 Basic Electricity for Non-Majors AND ..............................3
- BEX 101 Basic Electricity Lab for Non-Majors ..................................2
- ADX 120 Basic Automotive Electricity AND ......................................(3)
- ADX 121 Basic Automotive Electricity Lab OR ..................................(2)
- ENGT 110 Circuits I .........................................................................5
- DIT 190 Electrical Systems for Diesel Equipment AND .........................3
- DIT 191 Electrical Systems for Diesel Equipment Lab ...............................2
- ADX 260 Electrical Systems AND ..................................................3
- ADX 261 Electrical Systems Lab .....................................................(2)

Electives (Diesel Courses/Industrial Education Core) ..................................2

Total 12

Fluid Power Mechanic - 4706053119
(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC, WKC)

- FPX 100 Fluid Power OR ..........................................................3
- DIT 140 Hydraulics .......................................................................(3)
- FPX 101 Fluid Power Lab OR .......................................................2
- DIT 141 Hydraulics Lab .................................................................(2)

Electives (Diesel Courses/Industrial Education Core) ..................................7

Total 12

Heavy Duty Brake Mechanic - 4706053039
(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC, WKC)

- DIT 180 Brakes ............................................................................3
- DIT 181 Brakes Lab .................................................................2

Electives (Diesel Courses/Industrial Education Core) ..................................2

Total 12

Heavy Duty Drive Train Mechanic - 4706053089
(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC, WKC)

- DIT 150 Power Trains .................................................................3
- DIT 151 Power Trains Lab ............................................................2

Electives (Diesel Courses/Industrial Education Core) ..................................7

Total 12

Medium and Heavy Truck Mechanic Helper - 4706053149
(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC, WKC)

- ADX 120 Basic Automotive Electricity AND ......................................3
- ADX 121 Basic Automotive Electricity Lab OR ..................................2
- BEX 100 Basic Electricity for Non-Majors AND ..............................3
- BEX 101 Basic Electricity Lab for Non-Majors ..................................2
- ELT 110 Circuits I .........................................................................5
- ADX 150 Engine Repair AND .....................................................3
- ADX 151 Engine Repair Lab OR ....................................................2
- DIT 110 Introduction to Diesel Engines AND ....................................3
- DIT 111 Introduction to Diesel Engines Lab .....................................2
- ADX 260 Electrical Systems AND ..................................................3
- ADX 261 Electrical Systems Lab .....................................................2
- DIT 190 Electrical Systems for Diesel Equipment AND .........................3
- DIT 191 Electrical Systems for Diesel Equipment Lab ...............................2

Electrical Systems for Diesel Equipment ......................................................2

Total 12

Medium and Heavy Truck Mechanic Helper - 4706053149
(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC, WKC)

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

Electives (Diesel Courses/Industrial Education Core) ..................................2

Total 12

Medium and Heavy Truck Mechanic Helper - 4706053149
(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC, WKC)

- DIT 180 Brakes ............................................................................3
- DIT 181 Brakes Lab .................................................................2

Electives (Diesel Courses/Industrial Education Core) ..................................2

Total 12
Mobile Air Conditioning Mechanic - 4706053169  
(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC, WKC)  
ADX 170 Climate Control ........................................... 3  
ADX 171 Climate Control Lab ........................................ 1  
Electives (Diesel Courses/Industrial Education Core)........... 8  
Total ........................................................................ 12  
Preventive Maintenance Mechanic - 4706053199  
(Offered at ASC, BSC, ELC, GTW, HZC, HPC, MYC, OWC, SEC, SMC, WKC)  
DFT 103 Preventive Maintenance Lab ................................ 2  
Electives (Diesel Courses/Industrial Education Core)........... 11  
Total ........................................................................ 13  
Undercarriage Mechanic - 4706053099  
(Offered at ASC, BSC, ELC, HZC, MYC, OWC, SEC, SMC, WKC)  
DFT 123 Undercarriage Lab ........................................... 3  
Electives (Diesel Courses/Industrial Education Core)........... 9  
Total ........................................................................ 12  
Digital Game and Simulation Design  
Provides students with a thorough understanding of techniques for designing advanced 3D games and simulations. Courses will cover 2D and 3D graphics, animation, character development, texturing, rigging, scripting and game setup using state-of-the-art software development tools. 
Completing students will have developed the skills necessary to create sophisticated 3D graphics and a simple application that can be used for games and simulations.  
Digital Printing Technology  
The 3D Printing Technician – Level I certificate prepares individuals to design for and apply 3D printing technology, also known as additive manufacturing, towards a host of basic applications. Areas of study will incorporate a foundational understanding of the technology, the equipment, thermoplastics and other materials, design applications, related software, business applications, scanning technology, and other related concepts. Upon completion of the certificate, students will be versed in the broad impact of the technology and prepared for an entry level career within an industry that applies 3D printing technology in some fashion.  
Certificate  
3D Printing Technician – Level I - 1506073059  
(Offered at SMC)  
DPT 100 Introduction to 3D Printing Technology OR ............... 3  
DPT 102 3D Printing Technology Fundamentals AND .............. 2  
CIT 105 Introduction to Computers .................................... (3)  
BAS 160 Introduction to Business OR ............................... 3  
BAS 170 Entrepreneurship .............................................. (3)  
DPT 150 Introduction to Engineering Mechanics for 3D Printing .... 3  
DPT 280 Special Projects for 3D Printing, Level I .................... 1  
Elective: Any technical, entry level course within a field where 3D printing applications exist .................... 3  
Elective: Any technical, entry level course within a field where 3D printing applications exist .................... 3  
Total ........................................................................ 16-18  
Education  
The Associate in Applied Science Degree (AAS) – Education: Educator Preparation is a pathway designed for students who wish to begin coursework at a community and technical college and then apply for transfer admission to a teacher education program at a four-year college or university.  
Associate in Applied Science  
Education - 1315017019  
Educator Preparation Track - 131501703  
(Offered at BLC, ELC, GTW, JFC, SEC)  
General Education  
ENG 101 Writing I ..................................................... 3  
ENG 102 Writing II ..................................................... 3  
COM 181 Basic Public Speaking .................................... 3  
OR  
COM 252 Introduction to Interpersonal Communications .......... (3)  
– Arts and Humanities ............................................. 3-4  
HIS 108 History of the United States Through 1865 .......... 3  
OR  
HIS 109 History of the United States Since 1865 ................. (3)  
MAT 146 Contemporary College Mathematics .................. 3  
OR  
MAT 150 College Algebra ........................................... (3)  
OR  
MA 109 College Algebra .......................................... (3)  
OR  
MA 111 Contemporary Mathematics ................................ (3)  
Natural Sciences ....................................................... 6  
PSY 110 General Psychology ........................................ 3  
Social/Behavioral Sciences .......................................... 6  
Subtotal .................................................................. 34-35
Emergency Medical Services - Paramedic

Provides a comprehensive course of study that prepares the graduate for licensure as a Paramedic (EMTP). The curriculum is structured based on the National EMS Education Standards and regulations set forth by the Kentucky Board of Emergency Medical Services (KBEMLS). The three-phase curriculum is designed to provide the student with the cognitive, 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 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 license/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 Paramedic; 3 credit hours/EMS 210 Emergency Pharmacology; 3 credit hours/EMS 220 Cardiovascular Emergencies; 4 credit hours/EMS 230 Traumatic Emergencies; 3 credit hours/EMS 240 Medical Emergencies I; 3 credit hours/EMS 250 Medical Emergencies II; 3 credit hours/EMS 260 Special Populations; 1 credit hour/EMS 270 EMS Operations; 1 credit hour/EMS 275 Seminar in ALS; 5 credit hours/EMS 285 Field Internship & Summation; 2 credit hours/EMS 211 Fundamentals Lab; 1 credit hour/EMS 221 Cardiac & Trauma Lab; 1 credit hour/EMS 231 Medical Lab; 1 credit hour/EMS 215 Clinical Experience I; 1 credit hour/EMS 225 Clinical Experience II; 2 credit hours/EMS 235 Clinical Experience III. Students must meet the twenty-five percent (25%) residency requirements of the degree-granting institution.

Students select their career option preference, certificate or degree, either during advising or upon admission to the program, but may choose to change their career path while in the program without reapplying for admission to the college.

Student can receive a certificate as an Electrocardiogram Technician by completing EMS 150. EMS 150 will prepare students to perform and interpret electrocardiograms in a hospital or clinical setting.

Associate in Applied Science

Emergency Medical Services - Paramedic - 5109047029
(Offered at GT, HPC, HZC, JFC, MDC, OWC, SEC, SMC)

General Education:
ENGL 101 Writing I .................................................. 3
PSY 110 General Psychology ........................................... 3
BIO 135 Basic Anatomy and Physiology with Laboratory* 4
Quantitative Reasoning ............................................. 3
Oral Communications ............................................. 3
Heritage or Humanities ............................................ 3

AHS 115 Medical Terminology OR ................................ 3
CLA 131 Medical Terminology from Greek and Latin ........... 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 285 Field Internship & Summation ............................ 5-6
AHS 201 Management Principles for Allied Health Providers 3

Total Credits 63-67

*BIO 135 & BIO 139 may be substituted for BIO 135

Certificate

Emergency Medical Services - Paramedic - 5109043040
(Offered at BLC, HZC, GT, JFC, MDC, OWC, SEC, SKT, SMC)

BIO 135 Basic Anatomy and Physiology with Laboratory* 4
AHS 115 Medical Terminology OR ................................ 3
CLA 131 Medical Terminology Greek/Latin ....................... 3
FHM 100 Dosage Calculations OR ................................ 2
MAT 110 Applied Mathematics ....................................... 3
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

Total Credits 63-67

BIO 135 & BIO 139 may be substituted for BIO 135
The Energy Management (EM) degree is designed to give students the skills and national certifications required to receive employment in the rapidly growing field of energy management and positions in the energy industry. The embedded certificates include: the Center for Energy Workforce Development (CEWD) Energy Industry Fundamental Certificate, the Building Performance Institute’s Building Specialist certificate, The North American Board of Certified Energy Practitioners’ Entry Level Solar certification, the Leadership in Energy and Environmental Design’s Green Associate certification, and the Environmental Protection Agency’s Article 608 certification. The program is designed to meet the needs of non-traditional and working students by having courses absent of pre-requisites. The program has several embedded certificates that will give many exit points to employment. Graduates of the EM program will be qualified to recommend improvements to commercial and residential buildings by analyzing subsystems that contribute to higher energy usage.

Associate in Applied Science

Energy Management - 1505037039

(Offered at MDC)

General Education

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

Subtotal 15

Technical Core

ENM 101 Energy Industry Fundamentals ....................... 9
ENM 111 Sustainability Management OR .................... 3
One Study Abroad/Overseas Experience course (HRS 200, IES 235 Or other Study Abroad course from a non-KCTCS accredited higher education institution approved by the Energy Management program coordinator) (Offered at MDC) ...(3)

ENM 121 Solar Design and Applications ....................... 3
ENM 200 Commercial Energy Analysis ....................... 3
ENM 210 Smart Grid Applications ............................ 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

Subtotal 46

Total Credits 52

Certificates

Fundamentals of Energy Production – 1505033099

(Offered at MDC)

Commercial Energy Analysis – 1505033099

(Offered at MDC)

Sustainability Management OR ............................... 3
One Study Abroad/Overseas Experience course (HRS 200, IES 235 Or other Study Abroad course from a non-KCTCS accredited higher education institution approved by the Energy Management program coordinator) (Offered at MDC) ...(3)

Commercial Energy Analysis .................................. 3
Building Automation ............................................. 3
Regulatory and Environmental Issues ....................... 3
Air Conditioning and Refrigeration Regulations .......... 3

Total Credits 15

Academic Curricula
Technical Electives
Any course listed below OR in the certificates listed below (not including courses in the technical core) OR as approved by the program coordinator ........................................ 16

Subtotal 16
Total Credits 60-64

Certificate
Energy Efficiency Electrical Controls Technician – 1505033049
(Offered at GTW)

EET 154 Electrical Construction ........................................... 2
EET 155 Electrical Construction Lab ....................................... 2
EET 250 National Electric Code ........................................... 4
EET 252 Electrical Construction II ....................................... 2
EET 253 Electrical Construction II Lab ................................... 2
ELT 110 Circuits ............................................................... 5
EGY 220 Energy Efficiency Electrical Controls ......................... 4
Total 21

Outside Plant Technician – 1505033039
(Offered at GTW)

ELT 110 Circuits ............................................................... 5
ELT 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 ............................................................... 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 ............................................................... 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 ........................................... 2
EET 155 Electrical Construction Lab ....................................... 2
ELT 110 Circuits ............................................................... 5
EGY 230 Solar / Photovoltaic Technologies ..................... 4
Total 13

Energy Technologies
Offers an option for students to build a career in the energy field. The degree incorporates multiple tracks for certificates associated with different energy careers, allowing students to match their strengths and interests with an appropriate plan of study. It is focused on preparing graduates to enter the workforce in positions such as an entry-level utility apprentice, line maintenance technician, transformer/relay technician, fiber optic technician, outside plant fiber optic technician, network communications technician, voice and data wiring technician, or renewable energy and energy efficiency specialist. The degree provides a broad foundation across many facets of utility and communications technologies, resulting in a multi-skilled technician valued by the workforce. Hands-on instruction is used to teach students aspects of smart grid technology, fiber optics installation, utility operation, line maintenance, underground operations, substation operations, transmission distribution, solar/photovoltaic systems installation, design and placement of wind energy systems, energy efficiency analysis, electrical energy efficiency control technologies, and job safety. The technical certificate tracks are complemented by an operations management certificate, which provides background knowledge of business operations.

Associate in Applied Science
Energy Technologies - 1505037029
(Offered at GTW)

General Education
ENG 101 Writing ............................................................... 3
MAT 110 Applied Mathematics OR ................................. 3
PHY 171 Applied Physics OR ............................................... 4
Natural Sciences ....................................................... (3)
Heritage / Humanities .................................................. 3
Social/Behavioral Sciences .................................................. 3
Subtotal 18-19

Core
BAS 160 Introduction to Business ........................................... 3
EET 150 Transformers ......................................................... 2
EET 151 Transformers Lab ............................................... 1
ELT 110 Circuits ............................................................... 5
ELT 110 Voice and Data Installer Level I ......................... 4
ISX 101 Introduction to Industrial Safety ......................... 3
EGY 170 Energy Utility Technologies ......................... 4
EGY 120 Outside Plant Communications ......................... 4
Computer/Digital Literacy (NOTE: Computer/Digital literacy must be demonstrated either by competency exam or by successfully completing a computer/digital literacy course)........................................... 0-3
Subtotal 26-29
Engineering and Electronics Technology

The Engineering and Electronics Technology program provides course work, competencies and experiences to prepare the students for success in the areas of Engineering technology, electronics, computer maintenance, mechanical, industrial, computer aided design, robotics and automation, communications, instrumentation, and telephony.

Progress in the Engineering and Electronics Technology program is contingent upon achievement of a grade of “C” or better in each technical course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Associate in Applied Science

Engineering and Electronics Technology - 1503997019

(Offered at BLC, ELC, HPC, JFC, OWC, SKY, SMC)

General Education

MAT 150 College Algebra OR ........................................... 3
MAT 126 Technical Algebra and Trigonometry OR .......... (3)
PHY 221 Higher Level Quantitative Reasoning Course ...... (3)
ENG 101 Writing I .......................................................... 3
ENG 102 Social/Behavioral Sciences ................................ 3
ENG 103 Oral Communications ....................................... 3
ENG 104 Heritage/Humanities ......................................... (3)
Subtotal: 18-19

Core:

ELT 110 Circuits I .......................................................... 5
ELT 114 Circuits II .......................................................... 5
ELT 220 Digital I ............................................................ (4)
ELT 224 Digital II ......................................................... 3
CAD 100 Introduction to Computer Aided Design OR .... (4)
CAD 103 CAD Fundamentals OR ................................. (4)
BRX 120 Basic Blueprint Reading OR ............................. (3)
EET 270 Electrical Motor Controls I AND ..................... (2)
EET 271 Electrical Motor Controls I Lab ......................... 2
CIT 111 Computer Hardware and Software OR ............. 4
CIT 112 Computer Hardware and Software Lab .......... (4)
CIT 114 Digital I ......................................................... (3)
CIT 115 Digital II ......................................................... (3)
CIT 120 Digital III ....................................................... (4)
CIT 230 Programable Logic Controllers AND .............. (4)
CIT 231 Programable Logic Controllers Lab .................. (4)
CIT 234 Computer Hardware Maintenance AND ........... (3)
CIT 235 Computer Hardware Maintenance Lab ........... (3)
CIT 244 Electrical Machinery and Controls OR .......... 4
EET 270 Electrical Motor Controls I AND ..................... (2)
EET 271 Electrical Motor Controls I Lab ......................... (2)
EET 272 Electrical Motor Controls II AND .................... (2)
EET 273 Electrical Motor Controls II Lab ....................... (2)
EET 278 Programable Logic Controllers Lab ................ (4)
EET 279 Programable Logic Controllers OR ................. (4)
EET 284 Computer Aided Design Track ......................... (3)
EET 285 Computer Aided Design Capstone Course ...... (3)
EET 286 Digital Literacy ............................................... 3
NOTE: If a student takes CAD 103 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track.

Subtotal: 24-25

Electronics Track – 150399707

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

ELT 214 Devices II ....................................................... 4
ELT 220 Digital I .......................................................... (3)
Technical Electives * .................................................... 13
Subtotal: 20

Total 62-64

* Technical Electives: Any EET, ELT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Computer Maintenance Track – 150399703

(Offered at BLC, ELC, JFC, SMC)

CTT 111 Computer Hardware and Software OR ............ 4
ELT 234 Computer Hardware Maintenance AND .......... (3)
ELT 232 Computer Software Maintenance ................... (3)
ELT 220 Digital II ......................................................... (3)
CIT 160 Introduction to Networking Concepts OR ....... 4
CIT 161 Networking Fundamentals ................................ (4)
Technical Electives * .................................................... 9
Subtotal: 20-22

Total 62-66

* Technical Electives: Any EET, ELT, CIT, 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, ELT, CIT, 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 263 Applied Fluid Power ........................................ 3
CAD 200 Intermediate Computer Aided Drafting ............ 4
Technical Electives * .................................................... 8
Subtotal: 19-20

Total 61-64

* Technical Electives: Any EET, ELT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Industrial Track – 150399704

(Offered at BLC, HPC, JFC, 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 272 Electrical Motor Controls II AND .................... (2)
EET 273 Electrical Motor Controls II Lab ....................... (2)
EET 278 Programable Logic Controllers Lab ............... (4)
EET 279 Programable Logic Controllers OR ................. (4)
EET 284 Computer Aided Design Track ......................... (3)
EET 285 Computer Aided Design Capstone Course ...... (3)
EET 286 Digital Literacy ............................................... 3
NOTE: If a student takes CAD 103 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track.

Subtotal: 24

Total 66-68

* Technical Electives: Any EET, ELT, CIT, 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 ........ (3-4)
CAD 200 Intermediate Computer Aided Drafting .......... 4
CAD 201 Advanced 3D Modeling ................................... 4
Technical Electives * .................................................... 12
Subtotal: 23-24

Total 65-68

* Technical Electives: Any EET, ELT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.
### Robotics and Automation Track – 150399705
*(Offered at BLC, HPC, JFC, SKY)*

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<td>ELT 244</td>
<td>Electrical Machinery and Controls OR</td>
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<td>EET 270</td>
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<td>EET 271</td>
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<td>(2)</td>
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<td>ELT 250</td>
<td>Programmable Logic Controllers OR</td>
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*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

### Communications Track – 150399708
*(Offered at BLC, ELC)*

<table>
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<th>Credits</th>
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<td>ELT 214</td>
<td>Devices II</td>
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<td>ELT 220</td>
<td>Digital II</td>
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<td>EET 240</td>
<td>Communications Electronics</td>
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*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

### Instrumentation Track – 150399709
*(Offered at ELC)*

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<td>ISM 102</td>
<td>Fundamentals of Instrumentation</td>
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<td>ISM 210</td>
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<td><strong>Total:</strong></td>
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*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

### Diplomas

#### Electronics – 1503994019
*(Offered at BLC, BSC, ELC, HPC, JFC, OW, SEC, SMC)*

**General Education:**

| Area 1: Written Communication or Oral Communications | 3 |
| Area 2: | AND |
| MAT 150: College Algebra OR | 3 |
| MAT 126: Technical Algebra and Trigonometry OR | (3) |
| Higher Level Quantitative Reasoning Course | (3) |
| **Subtotal:** | **6** |
| **Core:** | | |
| ELT 110 | Circuits I | 5 |
| ELT 114 | Circuits II | 5 |
| ELT 210 | Devices I | 4 |
| ELT 120 | Digital I | 3 |
| CAD 100 | Introduction to Computer Aided Design OR | 3 |
| CAD 103 | CAD Fundamentals OR | (4) |
| BRX 120 | Basic Blueprint Reading OR | (3) |
|             | Equivalent Course with Consent of Program Coordinator | (3-4) |
| ELT 289 | Engineering and Electronics Technology Capstone Course | 1 |
|             | Digital Literacy | 3 |

**Diploma:**

**Total:** | **55-57** |

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

### Apprenticeship- 1503994059
*(Offered at JFC)*

**General Education:**

| Area 1: Written Communication or Oral Communications | 3 |
| AND |
| MAT 150: College Algebra OR | 3 |
| MAT 126: Technical Algebra and Trigonometry OR | (3) |
| Higher Level Quantitative Reasoning Course | (3) |
| **Subtotal:** | **6** |
| **Core:** | | |
| ELT 110 | Circuits I | 5 |
| ELT 114 | Circuits II | 5 |
| ELT 210 | Devices I | 4 |
| ELT 120 | Digital I | 3 |
| CAD 100 | Introduction to Computer Aided Design OR | 3 |
| CAD 103 | CAD Fundamentals OR | (4) |
| BRX 120 | Basic Blueprint Reading OR | (3) |
|             | Equivalent Course with Consent of Program Coordinator | (3-4) |
| ELT 289 | Engineering and Electronics Technology Capstone Course | 1 |
|             | Digital Literacy | 3 |

**Diploma:**

**Total:** | **55-57** |

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

### Industrial Electronics – 1503994079
*(Offered at BLC, HPC, JFC, OW, SEC)*

**General Education:**

| Area 1: Written Communication or Oral Communications | 3 |
| AND |
| MAT 150: College Algebra OR | 3 |
| MAT 126: Technical Algebra and Trigonometry OR | (3) |
| Higher Level Quantitative Reasoning Course | (3) |
| **Subtotal:** | **6** |
| **Core:** | | |
| ELT 110 | Circuits I | 5 |
| ELT 114 | Circuits II | 5 |
| ELT 210 | Devices I | 4 |
| ELT 120 | Digital I | 3 |
| CAD 100 | Introduction to Computer Aided Design OR | 3 |
| CAD 103 | CAD Fundamentals OR | (4) |
| BRX 120 | Basic Blueprint Reading OR | (3) |
|             | Equivalent Course with Consent of Program Coordinator | (3-4) |
| ELT 289 | Engineering and Electronics Technology Capstone Course | 1 |
|             | Digital Literacy | 3 |

**Diploma:**

**Total:** | **55-57** |

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

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**NOTE:** If a student takes CAD 103 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track. (3)

**Practicum OR:** (1-2)

**Cooperative Education OR:** (1-2)

**Equivalent Course with Consent of Program Coordinator:** (1-2)

**Subtotal:** | **25-27**

**Total:** | **55-57**

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.
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<th>Course Name</th>
<th>Credit Hours</th>
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*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.
General Education:

Area 1: Written Communication or Oral Communications ...........3

Area 2: MAT 150 College Algebra OR ........................................3

MAT 126 Technical Algebra and Trigonometry OR ..................(3)

Higher Level Quantitative Reasoning Course ....................(3)

Subtotal: 6

Core:

ELT 110 Circuits I ........................................................... 5

ELT 114 Circuits II ......................................................... 5

ELT 210 Devices I ............................................................ 4

ELT 120 Digital I ............................................................. 3

CAD 100 Introduction to Computer Aided Design OR ............. 3

CAD 103 CAD Fundamentals OR ......................................(4)

BRX 120 Basic Blueprint Reading OR ................................ (3)

Equivalent Course with Consent of Program Coordinator(3-4)

ELT 289 Engineering and Electronics Technology Capstone Course 1

Digital Literacy .................................................................. 3

NOTE: If a student takes CAD 103 to meet

Digital Literacy requirements, he/she MUST take an

additional three (3) credit hours of elective credit

not used in the selected track.............................................. (3)

COED 198 Practicum OR ................................................... 1-2

COE 199 Cooperative Education OR ................................... (1-2)

Equivalent Course with Consent of Program Coordinator(1-2)

Subtotal: 24

Total 55-57

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course

as approved by the program coordinator.

Robotics and Automation – 1503994039

(Offered at BLC, BSC, HPC, JFC, OWC, SKY)

General Education:

Area 1: Written Communication or Oral Communications ...........3

Area 2: MAT 150 College Algebra OR ........................................3

MAT 126 Technical Algebra and Trigonometry OR ..................(3)

Higher Level Quantitative Reasoning Course ....................(3)

Subtotal: 6

Core:

ELT 110 Circuits I ........................................................... 5

ELT 114 Circuits II ......................................................... 5

ELT 210 Devices I ............................................................ 4

ELT 120 Digital I ............................................................. 3

CAD 100 Introduction to Computer Aided Design OR ............. 3

CAD 103 CAD Fundamentals OR ......................................(4)

BRX 120 Basic Blueprint Reading OR ................................ (3)

Equivalent Course with Consent of Program Coordinator(3-4)

ELT 289 Engineering and Electronics Technology Capstone Course 1

Digital Literacy .................................................................. 3

NOTE: If a student takes CAD 103 to meet

Digital Literacy requirements, he/she MUST take an

additional three (3) credit hours of elective credit

not used in the selected track.............................................. (3)

COED 198 Practicum OR ................................................... 1-2

COE 199 Cooperative Education OR ................................... (1-2)

Equivalent Course with Consent of Program Coordinator(1-2)

Subtotal: 24

Total 55-57

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course

as approved by the program coordinator.

Instrumentation – 1503994099

(Offered at ELC)

General Education:

Area 1: Written Communication or Oral Communications ...........3

Area 2: MAT 150 College Algebra OR ........................................3

MAT 126 Technical Algebra and Trigonometry OR ..................(3)

Higher Level Quantitative Reasoning Course ....................(3)

Subtotal: 6

Core:

ELT 110 Circuits I ........................................................... 5

ELT 114 Circuits II ......................................................... 5

ELT 210 Devices I ............................................................ 4

ELT 120 Digital I ............................................................. 3

CAD 100 Introduction to Computer Aided Design OR ............. 3

CAD 103 CAD Fundamentals OR ......................................(4)

BRX 120 Basic Blueprint Reading OR ................................ (3)

Equivalent Course with Consent of Program Coordinator(3-4)

ELT 289 Engineering and Electronics Technology Capstone Course 1

Digital Literacy .................................................................. 3

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course

as approved by the program coordinator.
NOTE: If a student takes CAD 103 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track.

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 Instrumetnation .................................... 4
ISM 210 Fundamentals of Process Control .................................... 4
Technical Electives * ......................................................... 9
Subtotal: 20
Total 51-53

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

Digital Telephony - 1503994109

General Education:
Area 1: Written Communication or Oral Communications.............3
Area 2: 
MAT 150 College Algebra OR................................................. 3
MAT 126 Technical Algebra and Trigonometry OR ....................... (3)
Higher Level Quantitative Reasoning Course ......................... (3)
Subtotal: 6

Core:
ELT 110 Circuits I ............................................................... 5
ELT 114 Circuits II ............................................................... 5
ELT 210 Devices I ............................................................... 4
ELT 214 Devices II ............................................................... 4
ELT 265 Applied Fluid Power ................................................. 3
ELT 244 Electrical Machinery and Controls OR ......................... 4
ELT 267 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)
Subtotal 24-25
Total 15-16

Electronics Technician – 1503993069
(Offered at BLC, BSC, ELC, HEC, HPC, JFC, OWC, SEC, SKY, SMC)
ELT 110 Circuits I ............................................................... 5
ELT 114 Circuits II ............................................................... 5
ELT 210 Devices I ............................................................... 4
ELT 214 Devices II ............................................................... 4
ELT 120 Digital I ............................................................... 3
ELT 220 Digital II ............................................................... 3
Total 24

Maintenance Technician – 1503993059
(Offered at BLC, BSC, ELC, HEC, HPC, JFC, OWC, SEC, SKY)
CAD 100 Introduction to Computer Aided Design OR ............... 3
CAD 103 CAD Fundamentals OR .............................................(4)
BRX 120 Basic Blueprint Reading OR .................................... (3)
Equivalent Course with Consent of Program Coordinator(3-4)
ELT 110 Circuits I ............................................................... 5
ELT 114 Circuits II ............................................................... 5
ELT 265 Applied Fluid Power ................................................. 3
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 24-25

Robotics and Automation Technician – 1503993099
(Offered at BLC, BSC, EHC, HPC, JFC, OW, SEC, SKY, SMC)
ELT 110 Circuits I ............................................................... 5
ELT 114 Circuits II ............................................................... 5
ELT 210 Devices I ............................................................... 4
ELT 120 Digital I ............................................................... 3
ELT 265 Applied Fluid Power ................................................. 3
ELT 260 Robotics and Industrial Automation ............................ 5
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 33

Digital Telephony Technician – 1503993119
(Offered at BSC, JEC, 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 OR ................................................(3)
Equivalent Course with Consent of Program Coordinator ...........(3)
ELT 110 Circuits I ............................................................... 5
ELT 120 Digital I ............................................................... 3
Digital Literacy ................................................................. 3
Total 19-20

Computer Maintenance Technician – 1503993029
(Offered at BLC, BSC, ELC, HEC, HPC, JFC, OW, SEC, SMC)
ELT 110 Circuits I ............................................................... 5
ELT 120 Digital I ............................................................... 3
Digital Literacy ................................................................. 3
CIT 111 Computer Hardware and Software OR ......................... 4
ELT 234 Computer Hardware Maintenance AND .......................(3)
ELT 232 Computer Software Maintenance .............................. (3)
Total 15-17
**Industrial Electronics Technician I – 1503993129**  
*(Offered at BLC, BSC, ELC, HEC, JFC, OWC, SEC, SKY)*

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<td>ELT 114</td>
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**Industrial Electronics Technician II – 1503993139**  
*(Offered at BLC, BSC, HPC, JFC, OWC, SEC, SKY)*

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<td>ELT 210</td>
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<td>ELT 214</td>
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**Mechanical Technician – 1503993149**  
*(Offered at BSC, HPC, JFC, OWC, SEC)*

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<td>ELT 122</td>
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<td>ELT 124</td>
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<td>IMT 150</td>
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<td>IMT 151</td>
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<td>ELT 265</td>
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<td>BRX 120</td>
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<td>CAD 200</td>
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**Automation Technician – 1503993229**  
*(Offered at BLC, BSC, HEC, HPC, JFC, OWC, SEC, SKY)*

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<td>ELT 110</td>
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<td>EET 271</td>
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<td><strong>Total</strong></td>
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**Communications Technician – 1503993039**  
*(Offered at BLC, BSC, ELC, HPC, JFC, OWC, SEC, SMC)*

<table>
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<th>Course</th>
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<tbody>
<tr>
<td>ELT 110</td>
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<td>ELT 240</td>
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**Instrumentation Technician – 1503993249**  
*(Offered at BSC, ELC, JFC, OWC, SEC)*

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<th>Course</th>
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<tbody>
<tr>
<td>ELT 110</td>
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<td><strong>Total</strong></td>
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**CAD Technician – 1503993199**  
*(Offered at HPC, JFC, OWC, SEC, SKY)*

<table>
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<th>Course</th>
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<tbody>
<tr>
<td>CAD 100</td>
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<td>CAD 200</td>
<td>4</td>
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</table>

*Technical Electives: Any EET, ENGT, ELT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.

**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>
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<th>Course</th>
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<tbody>
<tr>
<td>ENG 101</td>
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<tr>
<td>ENG 102</td>
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<tr>
<td>MAT 150</td>
<td>3</td>
</tr>
<tr>
<td>COM 181</td>
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</tbody>
</table>

*Technical Electives: Any EET, ENGT, ELT, CIT, ISM, CAD, ICT, MFG, or any other course as approved by the program coordinator.
### 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.

### Technical Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACH 195</td>
<td>Computer-Aided Drafting I</td>
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<tr>
<td>BTN 101</td>
<td>Introduction to Biotechnology</td>
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<tr>
<td>BTN 201</td>
<td>Biotechnology Techniques I</td>
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</tr>
<tr>
<td>BTN 202</td>
<td>Biotechnology Techniques II</td>
<td>4</td>
</tr>
<tr>
<td>CAD 100</td>
<td>Intro to Computer Aided Design</td>
<td>3</td>
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<tr>
<td>CET 211</td>
<td>Surveying</td>
<td>4</td>
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<tr>
<td>CHE 180</td>
<td>General College Chemistry I</td>
<td>4</td>
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<tr>
<td>CHE 185</td>
<td>General College Chemistry Lab I</td>
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<tr>
<td>CTC 234</td>
<td>Advanced Productivity Software</td>
<td>3</td>
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<td>COE 199</td>
<td>Cooperative Education (Internship)</td>
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<tr>
<td>ECO 201</td>
<td>Principles of Microeconomics*</td>
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<tr>
<td>ENG 203</td>
<td>Business Writing</td>
<td>3</td>
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<tr>
<td>ENG 204</td>
<td>Technical Writing</td>
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<td>EST 299</td>
<td>Selected Topics in EST</td>
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<tr>
<td>GLY 101</td>
<td>Physical Geology*</td>
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<td>GLY 111</td>
<td>Physical Geology Laboratory*</td>
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<tr>
<td>PHY 151</td>
<td>Introductory Physics II</td>
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<tr>
<td>STA 210</td>
<td>Statistics: A Force in Human Judgement*</td>
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Courses not on this list may be approved at the coordinator’s discretion.

* Satisfies General Education requirement for A.S degrees

### Electives:

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<td>ENV 293</td>
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<td>ENV 297</td>
<td>Special Problems III</td>
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**Total Credits:** 61

### Waste Processing Attendant - 1505073029

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<tr>
<td>ENV 110</td>
<td>Introduction to Environmental Technology</td>
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<tr>
<td>ENV 111</td>
<td>Environmental Sampling Techniques Lab</td>
<td>2</td>
</tr>
<tr>
<td>ENV 140</td>
<td>Geology, Hydrology and Soils</td>
<td>4</td>
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<tr>
<td>ENV 141</td>
<td>Geology, Hydrology and Soils Lab</td>
<td>2</td>
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<tr>
<td>ENV 260</td>
<td>Hazardous Materials Lab</td>
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<td>ENV 295</td>
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<td>ENV 297</td>
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**Total Credits:** 21

### Wastewater Treatment Plant Attendant - 1505073039

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<td>Introduction to Environmental Technology</td>
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<td>Environmental Sampling Techniques Lab</td>
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<tr>
<td>ENV 140</td>
<td>Geology, Hydrology and Soils</td>
<td>4</td>
</tr>
<tr>
<td>ENV 141</td>
<td>Geology, Hydrology and Soils Lab</td>
<td>2</td>
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<td>ENV 260</td>
<td>Wastewater Treatment Technology</td>
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<tr>
<td>ENV 291</td>
<td>Wastewater Treatment Technology Lab</td>
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<td>ENV 295</td>
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<tr>
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**Total Credits:** 20

### Wastewater Treatment Plant Operator - 1505073049

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<td>ENV 100</td>
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<td>Introduction to Environmental Technology</td>
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<tr>
<td>ENV 111</td>
<td>Environmental Sampling Techniques Lab</td>
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<td>ENV 120</td>
<td>Environmental Chemistry</td>
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<td>Environmental Chemistry Lab</td>
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<td>ENV 141</td>
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<td>ENV 270</td>
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<td>ENV 297</td>
<td>Special Problems III</td>
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</table>

**Total Credits:** 36

### Water Treatment Plant Attendant - 1505073059

<table>
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<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>
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<tr>
<td>ENV 280</td>
<td>Water Treatment Technology</td>
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<tr>
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**Electives:**

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<tbody>
<tr>
<td>ENV 291</td>
<td>Special Problems I</td>
<td>1</td>
</tr>
<tr>
<td>ENV 295</td>
<td>Special Problems II</td>
<td>2</td>
</tr>
<tr>
<td>ENV 297</td>
<td>Special Problems III</td>
<td>3</td>
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</tbody>
</table>

**Total Credits:** 20

### Certificates

#### Hazardous Materials Technician - 1505073019

*Offered at BLC*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</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>
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<tr>
<td>ENV 110</td>
<td>Introduction to Environmental Technology</td>
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<tr>
<td>ENV 120</td>
<td>Environmental Chemistry</td>
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<td>ENV 121</td>
<td>Environmental Chemistry Lab</td>
<td>1</td>
</tr>
<tr>
<td>ENV 140</td>
<td>Geology, Hydrology and Soils</td>
<td>4</td>
</tr>
<tr>
<td>ENV 141</td>
<td>Geology, Hydrology and Soils Lab</td>
<td>2</td>
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<tr>
<td>ENV 260</td>
<td>Hazardous Materials</td>
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<tr>
<td>ENV 261</td>
<td>Hazardous Materials Lab</td>
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<tr>
<td>ENV 270</td>
<td>Treatment and Disposal Techniques</td>
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</tr>
<tr>
<td>TEC 200</td>
<td>Technical Communications</td>
<td>3</td>
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</table>

**Total Credits:** 149

Courses not on this list may be approved at the coordinator’s discretion.

* Satisfies General Education requirement for A.S degrees
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 programs: Jockey Track and Horseman Track. Embedded within the curriculum for each track are diplomas and certificates that provide the necessary 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 effective 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 the 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 groomsmen, 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.

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

Subtotal Jockey Track: 17
Total Jockey Track AAS: 60-63

Jockey Track - 010507701
(Offered at BLC)

Subtotal Horseman Track: 17
Total Horseman Track: 60-63

Horseman Track - 010507702
(Offered at BLC)
### Approved Technical Electives

Any EQM or EQS course from alternate track. Six (6) credit hours of electives must be taken from the approved list. This list is not all inclusive. Other technical elective courses may be taken with approval of the program advisor/faculty.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPA 101</td>
<td>Elementary Spanish</td>
<td>4</td>
</tr>
<tr>
<td>EQM 120</td>
<td>Introduction to Commercial Breeding Practices</td>
<td>3</td>
</tr>
<tr>
<td>EQS 118</td>
<td>Equine Bloodstock</td>
<td>3</td>
</tr>
<tr>
<td>EQS 299</td>
<td>Equine Cooperative Education (internship)</td>
<td>1-9</td>
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### Diplomas

**Equine Studies - 0105074019**  
*(Offered at BLC)*

#### General Education Core

<table>
<thead>
<tr>
<th>Area I</th>
<th>(Written Communication /Oral Communications, or Humanities/Heritage)</th>
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<td>Area II</td>
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#### Technical Core

<table>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EQS 101</td>
<td>Introduction to the Thoroughbred</td>
<td>3</td>
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<tr>
<td>EQS 103</td>
<td>Racehorse Care</td>
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<td>EQS 104</td>
<td>Racehorse Care Lab</td>
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<td>EQS 110</td>
<td>Basic Equine Physiology</td>
<td>3</td>
</tr>
<tr>
<td>EQS 125</td>
<td>Equine Nutrition</td>
<td>3</td>
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<tr>
<td>EQS 130</td>
<td>Introduction to the Racing Industry</td>
<td>3</td>
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<tr>
<td>EQS 200</td>
<td>Lameness in Racehorses</td>
<td>3</td>
</tr>
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<td>EQS 240</td>
<td>Equine Legal and Business Principles</td>
<td>3</td>
</tr>
<tr>
<td>EQS 299</td>
<td>Equine Cooperative Education (1 credit hour min.</td>
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#### Jockey Track - 010507401

*(Offered at BLC)*

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<thead>
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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EQS 111</td>
<td>Introduction to Racing Racehorses</td>
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<tr>
<td>EQS 112</td>
<td>Racehorse Riding Skills I</td>
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<td>EQS 113</td>
<td>Racehorse Riding Skills II</td>
<td>4</td>
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<tr>
<td>EQS 212</td>
<td>Racehorse Riding Principles</td>
<td>3</td>
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<td>EQS 213</td>
<td>Racehorse Riding Techniques</td>
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<tr>
<td>EQS 215</td>
<td>Life Skills for Jockeys</td>
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#### Horsemanship Track - 010507402

*(Offered at BLC)*

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<tbody>
<tr>
<td>EQS 118</td>
<td>Equine Bloodstock</td>
<td>3</td>
</tr>
<tr>
<td>EQS 121</td>
<td>Introduction to Breaking and Training Racehorses</td>
<td>1</td>
</tr>
<tr>
<td>EQS 122</td>
<td>Yearling Breaking and Training</td>
<td>3</td>
</tr>
<tr>
<td>EQS 123</td>
<td>Breaking and Training Yearlings/Two-Year Olds</td>
<td>3</td>
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<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>
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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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>SPA 101</td>
<td>Elementary Spanish</td>
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<tr>
<td>EQM 120</td>
<td>Introduction to Commercial Breeding Practices</td>
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<td>EQS 118</td>
<td>Equine Bloodstock</td>
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<tr>
<td>EQS 299</td>
<td>Equine Cooperative Education (internship)</td>
<td>1-9</td>
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### Certificates

#### Exercise Rider - 0105073019

*(Offered at BLC)*

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<th>Course Title</th>
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<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 111</td>
<td>Introduction to Riding Racehorses</td>
<td>1</td>
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<tr>
<td>EQS 112</td>
<td>Racehorse Riding Skills I</td>
<td>4</td>
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<td>EQS 113</td>
<td>Racehorse Riding Skills II</td>
<td>4</td>
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<td>EQS 130</td>
<td>Introduction to the Racing Industry</td>
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#### Racehorse Care and Breaking – 0105073049

*(Offered at BLC)*

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<td>Introduction to the Thoroughbred</td>
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<td>EQS 103</td>
<td>Racehorse Care</td>
<td>1</td>
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<td>EQS 104</td>
<td>Racehorse Care Lab</td>
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<td>EQS 110</td>
<td>Basic Equine Physiology</td>
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<td>EQS 111</td>
<td>Introduction to Breaking and Training Racehorses</td>
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</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>
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<tr>
<td>EQS 130</td>
<td>Introduction to the Racing Industry</td>
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#### Equine Industry Workforce - 0105073039

*(Offered at BLC)*

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</thead>
<tbody>
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<td>Introduction to the Thoroughbred</td>
<td>3</td>
</tr>
<tr>
<td>EQS 103</td>
<td>Racehorse Care</td>
<td>1</td>
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<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>3</td>
</tr>
<tr>
<td>EQS 110</td>
<td>Basic Equine Physiology</td>
<td>3</td>
</tr>
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<td>EQS 130</td>
<td>Introduction to the Racing Industry</td>
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<td>EQS 200</td>
<td>Lameness in Racehorses</td>
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#### Veterinary Assistant - 0105073059

*(Offered at BLC)*

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<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
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<tr>
<td>BIO 112</td>
<td>Introduction to Biology</td>
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<tr>
<td>CHE 140</td>
<td>Introductory General Chemistry</td>
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<tr>
<td>CHE 145</td>
<td>Introductory General Chemistry Lab</td>
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</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking</td>
<td>3</td>
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<tr>
<td>MAT 116</td>
<td>Technical Mathematics</td>
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<tr>
<td>AGR 240</td>
<td>Introduction to Animal Science</td>
<td>3</td>
</tr>
<tr>
<td>EQS 101</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>3</td>
</tr>
<tr>
<td></td>
<td>Total Credits</td>
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</table>
Exercise Science

The Personal Trainer Certificate Program is comprised of American Council on Exercise (ACE) curricula, and will provide real-world experiences, skills, and knowledge needed to assess, design, and implement a personalized exercise program for clients. Graduates are eligible to take the ACE Personal Trainer Exam to become ACE-certified personal trainers.

Certificate

**Personal Trainer – 5109993029**

**(Offered at BSC)**

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>MTT 103 Medical Office Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>CLA 131 Medical Terminology from Greek and Latin OR</td>
<td>(3)</td>
</tr>
<tr>
<td>AHS 115 Medical Terminology</td>
<td>(3)</td>
</tr>
<tr>
<td>CPR 100 CPR for the Healthcare Professional</td>
<td>1</td>
</tr>
<tr>
<td>SFA 100 Safety and First Aid</td>
<td>1</td>
</tr>
<tr>
<td>BAS 200 Small Business Management OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 288 Personal and Organizational Leadership</td>
<td>(3)</td>
</tr>
<tr>
<td>MSG 100 Musculoskeletal Anatomy and Physiology OR</td>
<td>4</td>
</tr>
<tr>
<td>BNO 135 Basic Anatomy and Physiology with Laboratory</td>
<td>(4)</td>
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<tr>
<td>KHP 150 Personal Health Behavior</td>
<td>3</td>
</tr>
<tr>
<td>KHP 160 Personal Nutrition and Fitness</td>
<td>3</td>
</tr>
<tr>
<td>KHP 225 Exercise Techniques and Physical Training</td>
<td>3</td>
</tr>
<tr>
<td>KHP 235 Personal Trainer Practicum</td>
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<tr>
<td><strong>Total Credits</strong></td>
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</tr>
</tbody>
</table>

Financial and Customer Services

This certificate is designed to provide students with the financial, communication, and customer service skills necessary to be successful in the global financial services market. The certificate will require four primary areas of study including two fundamental courses, Spanish and customer service, and two courses in finance and communication, which enable different areas of emphasis.

Certificate

**Financial and Customer Services Certificate – 5208033019**

**(Offered at OWC)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPA 101 Elementary Spanish</td>
<td>4</td>
</tr>
<tr>
<td>QMS 201 Customer Service Improvement Skills</td>
<td>3</td>
</tr>
<tr>
<td>OST 235 Business Communication Technology OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252 Introduction to Interpersonal Communication</td>
<td>(3)</td>
</tr>
<tr>
<td>BAS 120 Personal Finance OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 294 Money and Financial Institutions</td>
<td>(3)</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

Fire/Rescue Science Technology

Fire/Rescue Science Technology:

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

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

Emergency Medical Technician Certificate:

Students in the Emergency Medical Technician program are instructed in the proper care of sick and injured patients. Students are trained to treat victims suffering from traumatic and medical emergencies such as broken bones, puncture wounds, cardiac, and respiratory emergencies, vehicle accidents and more. This course meets requirements set forth by the National Highway Traffic Safety Administration’s National Emergency Medical Services Standards for the Emergency Medical Technician. Students that successfully complete the course and its requirements will be awarded a certificate for Emergency Medical Technician, and will be eligible to sit for the certification examination as administered by the National Registry of Emergency Medical Technicians.

Associate in Applied Science

Fire/Rescue Science Technology - 4302037019

**(Offered at ASC, BLC, BSC, ELC, GTW, FJC, MDC, MYC, OWC, SKY, SMC, WKC)**

**General Education:**

- Heritage/Humanities ............................................. 3
- Quantitative Reasoning ........................................... 3
- Natural Sciences ................................................ 3
- Social/Behavioral Sciences .................................... 3
- Written Communication ........................................ 3
- **Subtotal** 15

**Technical Courses:**

- Computer/Digital Literacy ......................................... 0-3
- 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
- **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, ELC, GTW, FJC, MDC, MYC, OWC, SKY, SMC, WKC)**

**General Education:**

- Area 1 Written Communication, Oral Communications, or Humanities/Heritage ............................................. 3
- Area 2 Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning ............................................. 3
- **Subtotal** 6
### Technical Courses:

- **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

**Subtotal** 46-49

**Total Credits** 52-55

**NOTE:** All FRS courses are available in modules; see course description section.

### Certificate

**Basic Firefighter - 4302033019**

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

<table>
<thead>
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<td>FRS 102</td>
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<td>FRS 103</td>
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<td>FRS 104</td>
<td>3</td>
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<tr>
<td>FRS 105</td>
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<td>FRS 203</td>
<td>3</td>
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</table>

**Total Credits** 12

**NOTE:** All FRS courses are available in modules; see course description section.

### Advanced Firefighter - 4302033029

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

<table>
<thead>
<tr>
<th>Course</th>
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</tr>
</thead>
<tbody>
<tr>
<td>FRS 101</td>
<td>3</td>
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<tr>
<td>FRS 102</td>
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<tr>
<td>FRS 103</td>
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<tr>
<td>FRS 104</td>
<td>3</td>
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<td>FRS 105</td>
<td>3</td>
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<td>FRS 203</td>
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</tr>
</tbody>
</table>

**Total Credits** 24

**NOTE:** All FRS courses are available in modules; see course description section.

### Fire Officer - 4302033039

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

<table>
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<tr>
<td>FRS 2052</td>
<td>1.1</td>
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<tr>
<td>FRS 2053</td>
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</tr>
<tr>
<td>FRS 2054</td>
<td>1.0</td>
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<td>FRS 2074</td>
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</table>

**Total Credits** 13

**NOTE:** All FRS courses are available in modules; see course description section.

### Emergency Medical Technician - 5109042010

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>FRS 2061</td>
<td>6</td>
</tr>
<tr>
<td>EMS 105</td>
<td>6</td>
</tr>
</tbody>
</table>

**Total Credits** 6

**NOTE:** Contact faculty concerning pre-requisites.

---

### General Occupational/Technical Studies

The Associate in Applied Science degree in General Occupational/Technical Studies provides flexible alternatives for meeting student and employer needs. This program serves two general purposes: 1) Individualized program – provides a flexible curriculum that can be designed to meet specific student and workplace needs, and 2) Degree completion – provides a structure through which credit may be granted for significant prior learning experiences in occupational/technical areas.

Credit earned through certificate and diploma program completion will be applicable toward the Associate in Applied Science in General Occupational/Technical Studies degree when consistent with the objectives of the student’s individual plan of study. This heavily advisor-driven model can combine certificates and/or diplomas in different disciplines for meeting employer needs for unique skill combinations for which there is no established degree program. As much as twenty hours of credit for experiential learning may be applied toward degree completion. KCTCS certificate and diploma credit and acceptable credit transferred from other colleges may also be applied to a student’s program completion plan. At least 25 percent of the approved curriculum credits must be completed at the KCTCS institution granting the degree.

### Associate in Applied Science

**General Occupational/Technical Studies - 3099997017**

(Offered at ASC, BLC, BSC, ELC, GTW, SEC, SKY, SMC, WKC)

**Available Completely Online**

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<tr>
<th>Component</th>
<th>Minimum Credits</th>
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<tr>
<td>Quantitative Reasoning</td>
<td>3</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Heritage/Humanities</td>
<td>3</td>
</tr>
<tr>
<td>Written Communication</td>
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<tr>
<td>Additional General Education</td>
<td>0-5</td>
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</table>

**Total Subtotal** 15-20

**Technical Component Minimum**

Computer/Digital Literacy (Computer/Digital literacy must be demonstrated either by competency exam or by completing a computer/digital literacy course) 0-3

**Technical Courses** 45-50

**Total Credits** 60-68

**NOTE:**

1. If computer/digital literacy is demonstrated by a competency exam, an additional three credit hour course is required.

2. The student must have a plan of study on file in the academic affairs office.

3. A combination of general education and technical courses should not exceed 68 credits.

---

**Academic Curricula**

153
**Geospatial Technology**

The rapidly growing field of Geospatial Technologies (GST) enables users of spatial data the ability to make informed decisions. GST utilizes both time and place as analysis factors. GST is recognized by the U.S. Department of Labor as a high growth, high wage, green industry with a bright outlook. Completers of the certificate will have the skills for employment in GST or associated fields such as Unmanned Aircraft System, agriculture, remote sensing, geospatial intelligence, environmental science, crime analysis, and/or demographics.

**Certificate**

**Applications of Geospatial Technology – 4507023029**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIT 125 Introduction to GIS</td>
<td>3</td>
</tr>
<tr>
<td>CIT 225 GIS Software Tools</td>
<td>3</td>
</tr>
<tr>
<td>GIS 145 Remote Sensing</td>
<td>3</td>
</tr>
<tr>
<td>GIS 255 Geospatial Programming</td>
<td>3</td>
</tr>
<tr>
<td>GIS 260 Geospatial Web Mapping</td>
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<td><strong>Total Credits</strong></td>
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**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**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENG 101 Writing I AND</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102 Writing I OR</td>
<td></td>
</tr>
<tr>
<td>ENG 105 Writing: An Accelerated Course and</td>
<td></td>
</tr>
<tr>
<td>Global Studies Humanities/Fine Arts</td>
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</tr>
<tr>
<td>MAT 146 Contemporary College Mathematics OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 150 College Algebra</td>
<td></td>
</tr>
<tr>
<td>NAT 1 Natural Sciences</td>
<td>3-4</td>
</tr>
<tr>
<td>SBS 1 Social/Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>HST 1 Health Care Basic Skills I</td>
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</tr>
<tr>
<td>HST 2 Health Care Basic Skills I with Clinical</td>
<td></td>
</tr>
<tr>
<td>HST 3 Health Care Communication</td>
<td>2</td>
</tr>
<tr>
<td>AHS 1 Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>11-11.5</strong></td>
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</table>

**Health Care Foundations**

This certificate will prepare entry-level health care workers with basic health care knowledge and skills in the areas of health care delivery and management, health care communication, basic skills I & II, pharmacology, clinical pathophysiology and medical terminology.

**Certificate**

**Health Care Foundations-Basic - 5139023209**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
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<tr>
<td>HST 104 Health Care Basic Skills I with Clinical</td>
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<td>HST 102 Health Care Delivery &amp; Management</td>
<td>3</td>
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<tr>
<td>HST 103 Health Care Communication</td>
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<td>AHS 115 Medical Terminology</td>
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**Health Care Foundations-Intermediate - 5139023219**

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<tr>
<td>HST 104 Health Care Basic Skills I with Clinical</td>
<td></td>
</tr>
<tr>
<td>HST 102 Health Care Delivery &amp; Management</td>
<td>3</td>
</tr>
<tr>
<td>HST 103 Health Care Communication</td>
<td>2</td>
</tr>
<tr>
<td>AHS 115 Medical Terminology</td>
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<tr>
<td>HST 121 Pharmacology</td>
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<tr>
<td>HST 122 Clinical Pathophysiology</td>
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<td>HST 123 Health Care Basic Skills II</td>
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<tr>
<td><strong>Subtotal</strong></td>
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</tr>
</tbody>
</table>

**Health Care Specialist**

This certificate prepares students for a variety of Health IT workforce roles across hospitals, clinics, and other healthcare organizations that are integral to the implementation and management of electronic health information systems. The knowledge gained through completion of this certificate can be used to gain employment locally, regionally, and nationally.

Students will select a certificate track of Practice Workflow/Redesign Specialist, Clinician/Practitioner Consultant, Implementation Manager, Technical Software Support Specialist, Implementation Support Technician, or Trainer Specialist, all of which map to AHIMA’s (American
### Certificate

#### Health Care Specialist – 5107073079

( Offered at HZC )

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Description</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HCS 110</td>
<td>Culture of Healthcare</td>
<td>1</td>
</tr>
<tr>
<td>HCS 145</td>
<td>Health IT Terminology</td>
<td>1</td>
</tr>
<tr>
<td>HCS 150</td>
<td>Health IT Analysis &amp; Quality</td>
<td>2</td>
</tr>
<tr>
<td>HCS 165</td>
<td>Health Management Systems</td>
<td>2</td>
</tr>
<tr>
<td>HCS 180</td>
<td>Usability &amp; Human Factors</td>
<td>1</td>
</tr>
<tr>
<td>HCS 200</td>
<td>Health IT Computer Systems</td>
<td>1</td>
</tr>
<tr>
<td>HCS 295</td>
<td>Health IT Capstone</td>
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<tr>
<td><strong>Subtotal</strong></td>
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#### Practice Workflow/Redesign Specialist Track – 510707301

( Offered at HZC )

<table>
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<th>Course Code</th>
<th>Course Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HCS 110</td>
<td>Culture of Healthcare</td>
<td>1</td>
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<tr>
<td>HCS 145</td>
<td>Health IT Terminology</td>
<td>1</td>
</tr>
<tr>
<td>HCS 150</td>
<td>Health IT Analysis &amp; Quality</td>
<td>2</td>
</tr>
<tr>
<td>HCS 165</td>
<td>Health Management Systems</td>
<td>2</td>
</tr>
<tr>
<td>HCS 220</td>
<td>Working with Health IT Systems</td>
<td>1</td>
</tr>
<tr>
<td>HCS 290</td>
<td>Leadership in Health IT</td>
<td>1</td>
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<tr>
<td>HCS 295</td>
<td>Health IT Capstone</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
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#### Clinician/Practitioner Consultant Track – 510707302

( Offered at HZC )

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<th>Course Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HCS 145</td>
<td>Health IT Terminology</td>
<td>1</td>
</tr>
<tr>
<td>HCS 150</td>
<td>Health IT Analysis &amp; Quality</td>
<td>2</td>
</tr>
<tr>
<td>HCS 165</td>
<td>Health Management Systems</td>
<td>2</td>
</tr>
<tr>
<td>HCS 220</td>
<td>Working with Health IT Systems</td>
<td>1</td>
</tr>
<tr>
<td>HCS 290</td>
<td>Leadership in Health IT</td>
<td>1</td>
</tr>
<tr>
<td>HCS 295</td>
<td>Health IT Capstone</td>
<td>1</td>
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<tr>
<td><strong>Total</strong></td>
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#### Implementation Manager Track – 510707303

( Offered at HZC )

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<tr>
<th>Course Code</th>
<th>Course Description</th>
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<tbody>
<tr>
<td>HCS 110</td>
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<td>HCS 125</td>
<td>History in Healthcare</td>
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<td>Project Management &amp; Teams</td>
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<td>HCS 295</td>
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#### Technical Software Support Specialist Track – 510707304

( Offered at HZC )

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<th>Course Description</th>
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<tbody>
<tr>
<td>HCS 145</td>
<td>Health IT Terminology</td>
<td>1</td>
</tr>
<tr>
<td>HCS 200</td>
<td>Health IT Computer Systems</td>
<td>1</td>
</tr>
<tr>
<td>HCS 210</td>
<td>Implementing Health IT Systems</td>
<td>3</td>
</tr>
<tr>
<td>HCS 220</td>
<td>Working with HIT Systems</td>
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<tr>
<td>HCS 230</td>
<td>Vendor Specific Systems</td>
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</tr>
<tr>
<td>HCS 281</td>
<td>Health IT Customer Service</td>
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<tr>
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<td>Health IT Capstone</td>
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<tr>
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#### Implementation Support Specialist Track – 510707305

( Offered at HZC )

<table>
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<th>Course Code</th>
<th>Course Description</th>
<th>Credits</th>
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<td>Health IT Computer Systems</td>
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<td>HCS 210</td>
<td>Implementing Health IT Systems</td>
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</tr>
<tr>
<td>HCS 220</td>
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</tr>
<tr>
<td>HCS 230</td>
<td>Vendor Specific Systems</td>
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</tr>
<tr>
<td>HCS 295</td>
<td>Health IT Capstone</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>19</strong></td>
</tr>
</tbody>
</table>

### Health Information Technology

This program prepares the graduate to take an active role in the field of health information management. Graduates will interact with physicians, health professionals, and financial and administrative staffs to ensure the protection of information systems. Graduates will help determine health information budgets, resources and policies, utilizing current and accurate data. The curriculum includes course work in the supporting sciences and general education areas. Classroom instruction is supplemented with learning experiences in the campus laboratory and in area health care facilities. Students enrolled in the Health Information Program are required to achieve a minimum grade of "C" in each course in the program.

Health Information Technicians are employed in hospitals, medical clinics, nursing homes, other health care facilities and industry. Graduates with the AAS degree are qualified to write the American Health Information Management Association's / Commission on Certification for Health Informatics and Information Management (CCHIIM) Registered Health Information Technician examination and the CCA coding examination. Graduates of the medical records coding specialist certificate may write the American Health Information Management Association's CCA coding examination and the American Academy of Professional Coders' CPC-A (and others as qualified) coding examinations.

For students completing the AAS in Health Information Technology, documentation of computer literacy as defined by KCTCS is required prior to enrolling in the first HIT course.

The Associate in Applied Science Degree Health Information Technology 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 )

<table>
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<th>Course Title</th>
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<td>ENG 101</td>
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<tr>
<td>BIO 135</td>
<td>Human Anatomy and Physiology with laboratory OR</td>
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</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy and Physiology I AND</td>
<td>(4)</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy and Physiology II</td>
<td>(4)</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics OR</td>
<td>3</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra</td>
<td>(3)</td>
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<tr>
<td>PSY 110</td>
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<tr>
<td>SOC 101</td>
<td>Introduction to Sociology</td>
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### Implementation Support Specialist Track – 510707305

( Offered at HZC )

<table>
<thead>
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<th>Course Code</th>
<th>Course Description</th>
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</tr>
<tr>
<td>HCS 200</td>
<td>Health IT Computer Systems</td>
<td>1</td>
</tr>
<tr>
<td>HCS 210</td>
<td>Implementing Health IT Systems</td>
<td>3</td>
</tr>
<tr>
<td>HCS 220</td>
<td>Working with HIT Systems</td>
<td>1</td>
</tr>
<tr>
<td>HCS 230</td>
<td>Vendor Specific Systems</td>
<td>2</td>
</tr>
<tr>
<td>HCS 295</td>
<td>Health IT Capstone</td>
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<tr>
<td><strong>Total</strong></td>
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### Implementation Support Specialist Track – 510707305

( Offered at HZC )

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Description</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>HCS 145</td>
<td>Health IT Terminology</td>
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<tr>
<td>HCS 200</td>
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<td>1</td>
</tr>
<tr>
<td>HCS 210</td>
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<td>3</td>
</tr>
<tr>
<td>HCS 220</td>
<td>Working with HIT Systems</td>
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<tr>
<td>HCS 230</td>
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</tr>
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### Implementation Support Specialist Track – 510707305

( Offered at HZC )

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<tr>
<th>Course Code</th>
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<tbody>
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### Implementation Support Specialist Track – 510707305

( Offered at HZC )

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### Technical Course Requirements:

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<tr>
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<td>Introduction to Information Systems</td>
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<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek or Latin OR</td>
<td>3</td>
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<tr>
<td>MIT 103</td>
<td>Medical Office Terminology OR</td>
<td>(3)</td>
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<td>AHS 115</td>
<td>Medical Terminology</td>
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<tr>
<td>HIT 100</td>
<td>Introduction to Health Information Technology</td>
<td>3</td>
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<td>HIT 105</td>
<td>Patho/Pharm for Health Information Professionals</td>
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<tr>
<td>CTE 130</td>
<td>Productivity Software OR</td>
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<td>OST 240</td>
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<td>Clinical Classification Systems I</td>
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<tr>
<td>HIT 110</td>
<td>Legal/Ethical Issues in Health Information</td>
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<td>HIT 112</td>
<td>Reimbursement Methodologies</td>
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<td>HIT 200</td>
<td>Information Systems in Healthcare</td>
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<tr>
<td>HIT 202</td>
<td>Clinical Classification Systems II</td>
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<td>HIT 205</td>
<td>Performance Improvement in Health Information</td>
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<tr>
<td>HIT 207</td>
<td>Clinical Classification Systems III</td>
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<td>HIT 211</td>
<td>Health Care Management &amp; Statistics</td>
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<td>HIT 215</td>
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<tr>
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**NOTE:** BIO 137 and BIO 139 are required at JCTC.

### Certificate - HIT Coding - 5107073089

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<td>MIT 103</td>
<td>Medical Office Terminology OR</td>
<td>(3)</td>
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<tr>
<td>AHS 115</td>
<td>Medical Terminology</td>
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<tr>
<td>BIO 135</td>
<td>Human Anatomy and Physiology with laboratory OR</td>
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</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy and Physiology I AND</td>
<td>(4)</td>
</tr>
<tr>
<td>BIO 139</td>
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<td>HIT 100</td>
<td>Introduction to Health Information Technology</td>
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<td>HIT 105</td>
<td>Patho/Pharm for Health Information Professionals</td>
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### Release of Information Data Specialist – 5107073099

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<td>HIT 110</td>
<td>Legal/Ethical Issues in Health Information</td>
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<tr>
<td>BIO 135</td>
<td>Human Anatomy and Physiology with laboratory OR</td>
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</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I AND</td>
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</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
<td>(4)</td>
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<tr>
<td>CLA 131</td>
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<tr>
<td>MIT 103</td>
<td>Medical Office Terminology OR</td>
<td>(3)</td>
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<td>AHS 115</td>
<td>Medical Terminology</td>
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### Health Science Technology

The Health Science Technology (HST) program is designed to prepare students for entry-level career opportunities in the field of healthcare and health-related services. The program is designed for those students who seek entry level jobs as well as for the currently employed individual wishing to broaden skills for career enhancement. Graduates will possess marketable skills sets for direct services as well as the foundation needed to understand current health care delivery. Many of the general education and core courses are required for completion of varied professional health programs. Examples include diagnostic medical sonography, medical assisting, nursing, physical therapy assistant, radiography, respiratory care, and surgical technology. The HST provides a smooth transition or career pathway to an Allied Health or nursing selective admission program once a student is accepted.

A grade of “C” or better is required in each biological science and quantitative reasoning course.

### Associate in Applied Science

**Health Science Technology – 5100007019**

(Offered at ASC, BSC, ELC, HPC, JFC, MDC, WKC)

#### General Education

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
<td>MAT 150</td>
<td>College Algebra and Functions OR</td>
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<tr>
<td>MAT 110</td>
<td>Applied Math</td>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
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<tr>
<td>FYE 105</td>
<td>Achieving Academic Success</td>
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<tr>
<td>BIO 135</td>
<td>Basic Human Anatomy OR</td>
<td>4</td>
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<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I AND</td>
<td>(4)</td>
</tr>
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<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
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<tr>
<td>PSY 110</td>
<td>General Psychology</td>
<td>3</td>
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<td></td>
<td>Social/Behavioral Sciences</td>
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<td>Heritage/Humanities</td>
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#### Technical Core:

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<td>CLA 131</td>
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<td>AHS 115</td>
<td>Medical Terminology OR</td>
<td>(3)</td>
</tr>
<tr>
<td>MIT 103</td>
<td>Medical Office Terminology OR</td>
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<td>NAA 100</td>
<td>Nursing Assistant Skills I</td>
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<td><strong>Total</strong></td>
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</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

Student may take the following courses to meet the required 60 credit hours needed for the Health Science Technology degree:

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<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<td>BIO 137 EFM 100 HST 122 PHYS 172</td>
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<td>BIO 139 HST 101 HST 123 PLW 130</td>
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<td>AHS 115</td>
<td>BIO 225 HST 102 NAA 102 PLW 115</td>
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<td>AHS 201</td>
<td>CIT 105 HST 103 OST 110 PLW 140</td>
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<tr>
<td>AHS 203</td>
<td>COM 181 HST 104 PHYS 152 TEC 200</td>
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<tr>
<td>BAS 120</td>
<td>COM 252 HST 121 PHYS 171 WIP 200</td>
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</table>
Healthcare Facilities Leadership

The Healthcare Facilities Leadership program prepares students for a highly innovative and rapidly changing professional career as a Healthcare Facilities Leader/Manager. Students receive an education in office and hospital procedures, client relations and communications, leadership, finances, energy management, public speaking, construction, infection control, maintenance operations, and codes and compliance. This knowledge can be used to gain employment locally, regionally, or nationally. Overall, the students in this program receive an education that provides marketable skills, preparing them to be employed in a high demand profession.

Associate in Applied Science

Healthcare Facilities Leadership – 5107997019
(Offered at OWC)

<table>
<thead>
<tr>
<th>General Education Courses</th>
<th>Credit Hours</th>
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<tr>
<td>MAT 150 College Algebra or Higher Level Quantitative Reasoning Course</td>
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<tr>
<td>PHI 110 Medical Ethics ........</td>
<td>3</td>
</tr>
<tr>
<td>HFL 100 Introduction to Healthcare Facility Management ..........</td>
<td>3</td>
</tr>
<tr>
<td>HFL 110 Introduction to Healthcare Industry ..................</td>
<td>2</td>
</tr>
<tr>
<td>HFL 120 Infection Control and Prevention .....................</td>
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</tr>
<tr>
<td>HFL 130 Compliance, Codes, and Standards I ....................</td>
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</tr>
<tr>
<td>HFL 140 Maintenance and Operations I .............................</td>
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</tr>
<tr>
<td>HFL 150 Planning, Design, and Construction I ...................</td>
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<tr>
<td>CHE 170 General College Chemistry I AND ..........................</td>
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<td>CHE 175 General College Chemistry I Lab OR ........................</td>
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<td>BIO 112 Introduction to Biology AND ................................</td>
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<tr>
<td>BIO 113 Introduction to Biology Lab ...................................</td>
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<tr>
<td>COM 181 Basic Public Speaking ...........................................</td>
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<td>ESP 101 Introduction to Energy Systems ................................</td>
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<tr>
<td>HFL 230 Compliance, Codes, and Standards II ......................</td>
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<td>HFL 240 Maintenance and Operations II ...............................</td>
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<td>HFL 250 Planning, Design, and Construction II ....................</td>
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<td>HFL 270 Healthcare Facilities Leadership Capstone II ...............</td>
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<td>BAS 287 Supervisory Management OR .....................................</td>
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<td>BAS 212 Introduction to Financial Management ......................</td>
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<td>ECO 201 Principles of Microeconomics ................................</td>
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<td>BAS 288 Personal and Organizational Leadership ....................</td>
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Total Credits 43-46

Diploma

Healthcare Facilities Leadership - 5107994019
(Offered at OWC)

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<td>HFL 130 Compliance, Codes, and Standards I ....................</td>
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<tr>
<td>HFL 230 Compliance, Codes, and Standards II ......................</td>
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<tr>
<td>HFL 240 Maintenance and Operations II ...............................</td>
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<tr>
<td>HFL 250 Planning, Design, and Construction II ....................</td>
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<tr>
<td>HFL 260 Healthcare Facilities Leadership Capstone I ...............</td>
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<tr>
<td>ECO 201 Principles of Microeconomics ................................</td>
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<tr>
<td>BAS 288 Personal and Organizational Leadership ....................</td>
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Digital Literacy or Elective (if Digital Literacy is satisfied) ... 3

Total Credits 65-66

Heavy Equipment Operation

Certificate

Healthcare Facilities Foundation - 5107993019
(Offered at HZC, SEC)

<table>
<thead>
<tr>
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<tbody>
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<td>HFL 100 Introduction to Healthcare Facility Management ..........</td>
<td>3</td>
</tr>
<tr>
<td>HFL 110 Introduction to Healthcare Industry ..................</td>
<td>2</td>
</tr>
<tr>
<td>HFL 120 Infection Control and Prevention .....................</td>
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</tr>
<tr>
<td>HFL 130 Compliance, Codes, and Standards I ....................</td>
<td>3</td>
</tr>
<tr>
<td>HFL 140 Maintenance and Operations I ...............................</td>
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<tr>
<td>HFL 150 Planning, Design, and Construction I ...................</td>
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Total Credits 16

Diploma

Operating Engineer - 4902024019
(Offered at HZC, SEC)

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<tr>
<td>Area 2= Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning* ..................................</td>
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Subtotal 6

*MAT 116 or higher level Quantitative Reasoning course required at SEC

Technical Courses:

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<td>ISX 100 Industrial Safety ....................................</td>
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<td>DIT 101 Preventive Maintenance Lab ..........................</td>
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</tr>
<tr>
<td>HEO 151 Heavy Equipment Operating I ........................</td>
<td>6</td>
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</tr>
<tr>
<td>HEO 201 Heavy Equipment Operating II ........................</td>
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<tr>
<td>HEO 251 Heavy Equipment Operating III ........................</td>
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<td>HEO 125 Special Problems I .....................................</td>
<td>3</td>
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<tr>
<td>HEO 225 Special Problems II ....................................</td>
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Total Technical Credits 29-32

Total Credits 35-38

Certificates

Backhoe Operator - 4902023069
(Offered at HZC, SEC)

<table>
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<tr>
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<th>Credit Hours</th>
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<tbody>
<tr>
<td>HEO 110 Power Shovel Backhoe Operator ................................</td>
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<tr>
<td>HEO 125 Special Problems I .....................................</td>
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Total Credits 12

Bulldozer Operator- 4902023029
(Offered at HZC, SEC)

<table>
<thead>
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<th>General Education Courses</th>
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<tbody>
<tr>
<td>HEO 111 Bulldozer Operator ...........................................</td>
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<tr>
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<td>2</td>
</tr>
<tr>
<td>HEO 125 Special Problems I .....................................</td>
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</tbody>
</table>

Total Credits 12

Academic Curricula
Fire Science Track:
This degree track includes fire department organization, fire behavior, firefighter safety, personal protective equipment, portable fire extinguishers, fire hose, appliance and streams.

Criminal Justice Track:
This criminal justice degree track prepares the student for entry into the field of police work and related occupations. Criminal justice vocations have evolved from jobs with minimal requirements to jobs requiring complex knowledge and skills. This curriculum gives the student theory, principles, and techniques employed by criminal justice agencies and police units. The study of the law as it relates to criminal justice agencies, human behavior, government, and communications along with specialized course work comprise the curriculum.

Security Management Track:
The Security Management Coordinator degree track provides a comprehensive overview of physical security policies, procedures and techniques. Topics covered are perimeter protection, intrusion detection, access control, CCTV, security design and surveys, contingency planning, and acts of violence.

Homeland Security/Emergency Management Specialist Certificate:
This certificate program includes an overview of homeland security, emergency management and first responder agencies, including but not limited to: fire departments, law enforcement and emergency medical services and how these agencies function within the National Incident Management System.

Progression in the program is contingent upon achievement of a grade of “C” or better in each technical course for all program tracks above

Associate in Applied Science

Homeland Security/Emergency Management - 4399997019
(Offered at WKC)

General Education Core
Written Communication ................................................. 3
Quantitative Reasoning .................................................... 3
Natural Sciences ............................................................ 3
Social/Behavioral Sciences ................................................. 3
Heritage/Humanities ........................................................ 3
Oral Communications ...................................................... 3
Total General Education Core Credit Hour Subtotal 18

Technical Core or Support Courses
Computer/Digital Literacy ............................................. 0-3
HSM 100 Introduction to Homeland Security .......................... 3
HSM 110 Introduction to Emergency Management .................... 3
CRJ 110 Principles of Asset Protection AND ......................... 3
CRJ 210 Physical Security Technology & Systems OR ............... 3
LSI 120 Comprehensive Security Specialist AND .................... 4
LSI 146 Crisis Management/Contingency Planning .................. 2
HSM 225 Issues and Ethics in Homeland Security .................... 3
AHS 140 Introduction to Public and Community Health ............. 3
BAS 212 Introduction to Financial Management .................... 3
FRS 101 Introduction to Fire Science .................................. 3
FRS 2061 Emergency Medical Technician ............................ 6
NOTE: Computer/Digital Literacy must be demonstrated either by competency exam or by completing a computer/digital literacy course.

Technical Core Subtotal 30-33

Historic Preservation Technology
The program will focus on the study of preservation theory coupled with hands-on skill training to meet the needs of entry level individuals and prospective employers involved in the historic preservation field. Researching the background of structures designated as historic properties will enhance the learning experience while applying the Secretary of the Interior’s standards for the rehabilitation of historic structures.

Certificates
Historic Preservation Technology – 3012013019
(Offered at JFC)

BRX 220 Blueprint Reading for Construction .......................... 3
ACH 120 Theory and History of Architecture I ........................ 3
HIS 240 History of Kentucky ............................................ 3
HPT 100 Introduction to Historic Preservation ......................... 3
HPT 101 Introduction to Historic Preservation Lab ................... 2
JSX 100 Industrial Safety OR ............................................. 3
JSX 101 Introduction to Industrial Safety ................................ (3)
Technical Electives* ....................................................... 8
Total 25

*Technical Electives: Select a minimum of 8 credit hours
HPT 120 Traditional Woodworking ........................................ 2
HPT 200 Masonry Repointing and Repair ................................. 2
HPT 202 Window Restoration and Repair ................................ 2
HPT 204 Roof Restoration and Repair .................................... 2
HPT 298 Field Experience Practicum .................................... 2

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.

Front-End Loader Operator - 4902023079
(Offered at HZC, SEC, WKC)
HEO 107 Utility Tractor Loader Operator ................................ 7
DFT 103 Preventive Maintenance Lab .................................... 2
HEO 125 Special Problems ................................................ 3
Total Credits 12

Motor-Grader Operator - 4902023049
(Offered at HZC, SEC, WKC)
HEO 106 Motor-Grader Operator .......................................... 7
DFT 103 Preventive Maintenance Lab .................................... 2
HEO 125 Special Problems ................................................ 3
Total Credits 12

Hydraulic Excavator Operator - 4902023059
(Offered at HZC, SEC, WKC)
HEO 151 Heavy Equipment Operating I ................................. 6
HEO 115 Hydraulic Excavator Operator .................................... 7
DFT 103 Preventive Maintenance Lab .................................... 2
HEO 125 Special Problems ................................................ 3
Total Credits 18

Technical Core Subtotal 30-33
Fire Science Track - 439999701
(Offered at WKC)

<table>
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<tr>
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<tr>
<td>LSI 170</td>
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<tr>
<td>LSI 195</td>
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Fire Science Track Total
Degree Requirements: 63-66

Criminal Justice Track - 439999702
(Offered at WKC)

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<td>CRJ 217</td>
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<td>CRJ 279</td>
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Criminal Justice Track Total
Degree Requirements: 63-66

Security Management Track - 439999703

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<td>LSI 170</td>
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<td>LSI 195</td>
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Security Management Track Total
Degree Requirements: 63-66

Certificate

Homeland Security/Emergency Management Specialist - 4399993019
(Offered at JFC, WKC)

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<tr>
<td>CRJ 210</td>
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<td>CRJ 210</td>
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<td>LSI 120</td>
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<td>LSI 146</td>
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<td>FRS 101</td>
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HSEM Specialist Certificate: 30

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 - 010601701

General Education:
- Quantitative Reasoning: 3
- Natural Sciences: 3
- Heritage/Humanities: 3
- Social/Behavioral Sciences: 3
- Written Communication: 3

Subtotal: 15

Technical Core:
- Computer/Digital Literacy*: 0-3
- Nursery Management: 4
- Turf Management OR: 4
- Retail Floral Design AND: 4
- Landscape Maintenance: 3
- Trees and Woody Plants: 2
- Horticulture Business Management: 3
- Greenhouse Management: 4

Subtotal: 26-31

* Must meet computer/digital literacy requirement.

Science Track - 010601701

General Education Natural Sciences Course: 3
- Cooperative Education OR: 3
- Practicum: (3)
- Introduction to Herbaceous Plants: 4
- Introduction to Woody Plants: 4
- Electives (Horticulture Course List including COE198): 3

Subtotal: 22

Total Science Track Credits: 63-68

Business Track - 010601702

- Cooperative Education OR: 2
- Practicum: (2)
- Fundamentals of Accounting I: 3
- Small Business Management: 3
- Introduction to Business Management: 3
- Office Procedures: 3
- Introduction to Business Law: 3
- Electives (Horticulture Course List including COE198): 3

Subtotal: 20

Total Business Track Credits: 61-66

Diploma

Landscape Technology - 0106014009

General Education:
- Written Communication, Oral Communications, or Heritage/Humanities: 3
- Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning: 3

Subtotal: 6
Technical:

- Computer/Digital Literacy* ........................................... 3
- COE 199 Cooperative Education OR ...................................... 6
- COED 198 Practicum ......................................................... (3)
- HRT 104 Introduction to Herbaceous Plants ...................... (4)
- HRT 108 Introduction to Woody Plants .............................. 4
- HRT 120 Turf Management OR ........................................... 4
- HRT 160 Retail Floral Design AND .................................... (4)
- HRT 161 Retail Floral Design Lab ....................................... (2)
- HRT 130 Landscape Maintenance ........................................ 3
- HRT 131 Landscape Maintenance Lab ................................ 2
- HRT 210 Landscape Design ............................................... 4

Subtotal: 30-32

Total: 36-38

* If computer/digital literacy is met by the competency exam, an additional 3 credit hours of general education or program elective must be taken.

General Education:

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

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

Subtotal: 6

* If computer/digital literacy is met by the competency exam, an additional 3 credit hours of general education or program elective must be taken.

Certificates

Greenhouse Operations - 0106013029

- HRT 240 Greenhouse Management ...................................... 4
- HRT 241 Greenhouse Management Lab ................................ 2
- Electives (Horticulture Course List) .................................. 6

Total Credits: 12

Greenhouse Production – 010613019

- HRT 104 Introduction to Herbaceous Plants ...................... 4
- HRT 240 Greenhouse Management ...................................... 4
- HRT 241 Greenhouse Management Lab ................................ 2
- Electives (Horticulture Course List including COE198) ........ 8

Total Credits: 18

Horticulture Sales - 0106013119

- HRT 108 Introduction to Woody Plants OR ......................... 4
- HRT 104 Introduction to Herbaceous Plants ...................... (4)
- HRT 120 Turf Management OR ........................................... 4
- HRT 160 Retail Floral Design AND .................................... (4)
- HRT 161 Retail Floral Design Lab ....................................... (2)
- HRT 130 Landscape Maintenance ........................................ 3
- HRT 131 Landscape Maintenance Lab ................................ 2
- Electives (Horticulture Course List) .................................. 12

Total Credits: 15-18

Landscape Installation - 0106013049

- HRT 108 Introduction to Woody Plants OR ......................... 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

- 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
- Electives (Horticulture Course List) .................................. 4

Total Credits: 22

Lawn Maintenance - 0106013069

- HRT 120 Turf Management ............................................... 4
- HRT 130 Landscape Maintenance ........................................ 3
- HRT 131 Landscape Maintenance Lab ................................ 2
- Electives (Horticulture Course List) .................................. 1

Total Credits: 10

Nursery Production - 0106013079

- 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

- 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 obtain a “C” or better in all core classes (HMS 101, HMS 102, HMS 103, HMS 104 and (HMS 249 OR 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:

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<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
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<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
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<tr>
<td>ENG 102</td>
<td>Writing II</td>
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<tr>
<td>PSY 110</td>
<td>General Psychology</td>
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<td>PSY 223</td>
<td>Developmental Psychology</td>
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<tr>
<td>SOC 101</td>
<td>Introduction to Sociology</td>
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**Subtotal**

30

### Technical Core:

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<td>HMS 101</td>
<td>Human Services Survey</td>
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<td>Values of Human Services in a Contemporary Society</td>
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<td>HMS 103</td>
<td>Theories and Techniques in Human Services</td>
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<td>HMS 104</td>
<td>Group Dynamics</td>
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<td>HMS 249</td>
<td>Foundational Skills in Para-Professional Practice</td>
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<td>HMS 250</td>
<td>Clinical Practice in Human Services OR</td>
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**Subtotal**

34

**Total Credits**

64

### Technical Courses: Choose six hours

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<td>CRJ 208</td>
<td>Delinquency and the Juvenile Justice System</td>
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<td>EDP 203</td>
<td>Teaching Exceptional Learners in Regular Classrooms</td>
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<tr>
<td>FAM 252</td>
<td>Introduction to Family Science</td>
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<td>FAM 253</td>
<td>Human Sexuality: Development, Behavior and Attitudes</td>
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<td>HMS 210</td>
<td>Drugs, Society, and Human Behavior</td>
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<td>HMS/SWK 200</td>
<td>Dynamics of Human Behavior</td>
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<td>Introduction to Addictions</td>
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<td>Crisis Intervention</td>
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<td>Cultural Diversity in Human Services</td>
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<td>HMS/SWK 235/250</td>
<td>Teaching Persons with Mental Retardation</td>
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<td>HMS 245</td>
<td>Psychiatric Mental Health Technician</td>
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<td>Working with Disabilities in Human Services</td>
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<td>Criminology</td>
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<td>Methods of Working with the Aged</td>
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<td>Psychology of Aging</td>
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**Murray State University Courses:**

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**Eastern Kentucky University Courses:**

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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>
</tr>
</tbody>
</table>

* Special Topic courses at EKU; different section numbers indicate different topic content

**Eastern Kentucky University Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWK 106</td>
<td>Food Benefits</td>
<td>3</td>
</tr>
</tbody>
</table>

**Direct Support Work - 4400003039**

*(Offered at BLC, BSC, ELC, GTW, HPC, HZC, BD, JFC, MDC, OWC)*

**Available Completely Online**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</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/SWK 235/250 Teaching Persons with Mental Retardation 3

**Total Credits**

15

**Aging Services – 4400003049**

*(Offered at BLC, ELC, GTW, HPC, HZC, MDC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</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>

**Total Credits**

18

**Substance Abuse Recovery Coach – 4400003059**

*(Offered at BLC, BSC, ELC, GTW, HPC, HZC, MDC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</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>
</tr>
<tr>
<td>HMS/SWK 211/225</td>
<td>Introduction to Addictions</td>
<td>3</td>
</tr>
<tr>
<td>HMS/SWK 212/260</td>
<td>Crisis Intervention</td>
<td>3</td>
</tr>
<tr>
<td>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>

**Total Credits**

24
**Psychiatric Mental Health Technician – 4400003069**

*Offered at BSC, ELC, GTW, HZC, MDC*

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</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>
</tr>
<tr>
<td>SWK 275</td>
<td>The Family</td>
<td>3</td>
</tr>
<tr>
<td>MNA 100</td>
<td>Medicaid Nurse Aide I</td>
<td>3</td>
</tr>
<tr>
<td>HMS 245</td>
<td>Psychiatric Mental Health Technician</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Technical Elective from approved list</td>
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<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>27</strong></td>
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</tbody>
</table>

**Technical Electives:**
- HMS/SWK 211/255 Introduction to Addictions
- HMS/SWK 212/260 Crisis Intervention
- HMS/SWK 220 Cultural Diversity in Human Services
- HMS 265 Working with Disabilities in Human Services
- SWK 180 Introduction to Gerontology
- SWK 276 Criminology
- SWK 281 Psychology of Aging

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**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)*

**General Education**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>CHE 140</td>
<td>Introductory General Chemistry</td>
<td>3</td>
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<tr>
<td>CHE 145</td>
<td>Introductory General Chemistry Lab</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra</td>
<td>3</td>
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<tr>
<td></td>
<td>Oral Communications</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Social/Behavioral Sciences</td>
<td>3</td>
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<tr>
<td></td>
<td>Heritage/Humanities</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Digital Literacy or demonstrated competency</td>
<td>0-3</td>
</tr>
<tr>
<td>AET 110</td>
<td>Introduction to Circuit Analysis</td>
<td>4</td>
</tr>
<tr>
<td>APT 142</td>
<td>Instrumentation</td>
<td>4</td>
</tr>
<tr>
<td>ICT 186</td>
<td>Introduction to Process Technology</td>
<td>3</td>
</tr>
<tr>
<td>ICT 192</td>
<td>Process Technology Equipment</td>
<td>4</td>
</tr>
<tr>
<td>ICT 194</td>
<td>Process Technology Systems</td>
<td>4</td>
</tr>
<tr>
<td>ICT 196</td>
<td>Process Technology Operations</td>
<td>3</td>
</tr>
<tr>
<td>ICT 200</td>
<td>Process Troubleshooting</td>
<td>4</td>
</tr>
<tr>
<td>ICT 230</td>
<td>Health, Safety, &amp; Environmental Practices OR</td>
<td>3</td>
</tr>
<tr>
<td>ISX 101</td>
<td>Introduction to Industrial Safety</td>
<td>(3)</td>
</tr>
<tr>
<td>ICT 280</td>
<td>Capstone in Industrial Chemical Technology</td>
<td>2</td>
</tr>
<tr>
<td>ITE 250</td>
<td>Team Dynamics and Problem Solving</td>
<td>3</td>
</tr>
<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
</tr>
<tr>
<td>PHY 171</td>
<td>Applied Physics OR</td>
<td>4</td>
</tr>
<tr>
<td>PHY 152</td>
<td>Introductory Physics I AND</td>
<td>(3)</td>
</tr>
<tr>
<td>PHY 162</td>
<td>Introductory Physics II Lab</td>
<td>(1)</td>
</tr>
<tr>
<td>ELT 295</td>
<td>Independent Problems OR</td>
<td>1-2</td>
</tr>
<tr>
<td>COE 199</td>
<td>Co-operative Education</td>
<td>(1-4)</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>61-67</strong></td>
</tr>
</tbody>
</table>

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**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 certificates provide up-to-date training in current industry-standard software and trends for practitioners in the fields as well as introductory education for beginning students. In addition, the IMD program offers a certificate in Digital Video for students interested in film editing and cinematic arts.

**Associate in Applied Science**

*Information Management and Design - 1108017019*

*(Offered at BLC)*

**General Education Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</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>MATH 101</td>
<td>Mathematics Course</td>
<td>3</td>
</tr>
<tr>
<td>SCIENCE 101</td>
<td>Natural Sciences Course</td>
<td>3</td>
</tr>
<tr>
<td>HERITAGE 101</td>
<td>Heritage/Humanities Course</td>
<td>3</td>
</tr>
<tr>
<td>SOCIAL 101</td>
<td>Social/Behavioral Sciences Course</td>
<td>3</td>
</tr>
<tr>
<td>DIGITAL 101</td>
<td>Digital Literacy or demonstrated competency</td>
<td>0-3</td>
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<tr>
<td>AET 110</td>
<td>Introduction to Circuit Analysis</td>
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</tr>
<tr>
<td>APT 142</td>
<td>Instrumentation</td>
<td>4</td>
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<tr>
<td>ICT 186</td>
<td>Introduction to Process Technology</td>
<td>3</td>
</tr>
<tr>
<td>ICT 192</td>
<td>Process Technology Equipment</td>
<td>4</td>
</tr>
<tr>
<td>ICT 194</td>
<td>Process Technology Systems</td>
<td>4</td>
</tr>
<tr>
<td>ICT 196</td>
<td>Process Technology Operations</td>
<td>3</td>
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<tr>
<td>ICT 200</td>
<td>Process Troubleshooting</td>
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</tr>
<tr>
<td>ICT 230</td>
<td>Health, Safety, &amp; Environmental Practices OR</td>
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<td>ICT 280</td>
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<td>PHY 152</td>
<td>Introductory Physics I AND</td>
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<td>PHY 162</td>
<td>Introductory Physics II Lab</td>
<td>(1)</td>
</tr>
<tr>
<td>EBT 295</td>
<td>Independent Problems OR</td>
<td>1-2</td>
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<tr>
<td>COE 199</td>
<td>Co-operative Education</td>
<td>(1-4)</td>
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<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>61-67</strong></td>
</tr>
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</table>

**Core Content:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td>IMD 100</td>
<td>Digital Information and Communications Technologies</td>
<td>3</td>
</tr>
<tr>
<td>IMD 133</td>
<td>Beginning Web Design</td>
<td>3</td>
</tr>
<tr>
<td>IMD 126</td>
<td>Introduction to Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>IMD 115</td>
<td>Introduction to Graphic Design</td>
<td>3</td>
</tr>
<tr>
<td>IMD 120</td>
<td>Professional Practices</td>
<td>3</td>
</tr>
<tr>
<td>IMD 275</td>
<td>Information Management &amp; Communications</td>
<td>3</td>
</tr>
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<td>MNA 100</td>
<td>Medicaid Nurse Aide I</td>
<td>3</td>
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<td>COE 199</td>
<td>Coop Education OR</td>
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<td>IMD 271</td>
<td>Internship</td>
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<td><strong>21</strong></td>
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*Subtotal (General Education & Core Content) 39

*Satisfies General Education requirement for the AAS degree*
Choose from Web Design Track Courses:

IMD 127 Vector Design with Adobe Illustrator ........................................3
IMD 128 Raster Design with Adobe Photoshop ........................................3
IMD 180 Intermediate Web Design ..........................................................3
IMD 226 Advanced Desktop Publishing ..................................................3
IMD 280 Portfolio Practicum: Graphic Design ........................................3
IMD 277 Typography ..............................................................................3
IMD 228 Advanced Photoshop OR .........................................................3
IMD 229 Advanced Illustrator .................................................................3

Subtotal 21

Total 60

Library & Information Technology Track - 110801704

(Offersd at BLC)

Available Completely Online

LIT 115 Introduction to Reference Services ........................................3
LIT 124 Library Administration ...............................................................3
LIT 132 Library Technical Services ..........................................................3
LIT 243 Library Services for Children OR ..............................................3
LIT 245 Library Services for Young Adults OR ......................................3
LIT 247 Library Services for Adults OR ....................................................3
LIT 299 Selected Topics in Library Information Management (may be repeated for up to 6 hours) ....................................1-3

(Choose a total of 9 hours from the following):

LIT 120 Readers’ Advisory Services ......................................................3
LIT 243 Library Services for Children OR ..............................................3
LIT 245 Library Services for Young Adults OR ......................................3
LIT 247 Library Services for Adults OR ....................................................3
IMD 210 Microsoft Office Applications ..................................................3
LIT 285 History of Libraries ..................................................................3
LIN 175 Information Literacy .................................................................3
LIT 299 Selected Topics in Library Information Management (may be repeated for up to 6 hours) ....................................1-3

Subtotal 21

Total 60

Web Design Track - 110801703

(Offered at BLC)

IMD 127 Vector Design with Adobe Illustrator ........................................3
IMD 180 Intermediate Web Design ..........................................................3
IMD 230 Advanced Web Design ..............................................................3
IMD 240 Multimedia Development for the Web ....................................3
IMD 250 Digital Video Editing I ...............................................................3
IMD 292 Portfolio Practicum: Graphic Design ........................................3

Web Design Track Courses .................................................................3

Choose from Web Design Track Courses:

IMD 115 Introduction to Graphic Design ..............................................3
IMD 127 Vector Design with Adobe Illustrator ........................................3
IMD 290 Photography ............................................................................3
IMD 294 Seminar in Information Management & Design Technologies 3
IMD 255 Digital Video Editing II ............................................................3
IMD 258 Visual Effects for Video ............................................................3
IMD 210 Microsoft Office Applications ..................................................3
CIT 150 Internet Technologies .................................................................3
CIT 120 Computational Thinking ............................................................3
CIT 140 JavaScript I ..............................................................................3

Computer Programming Course Approved by Program Coordinator
Other Computer & Information Technologies and other Track Appropriate Courses Approved by Program Coordinator
Other Web or Graphic Design Courses Approved by Program Coordinator

Subtotal 21

Total 60

Choose from Video Game Design Track Courses:

IMD/CIT 124 Introduction to Game Development ....................................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 3D Animation for Video Games ........................................3
IMD/CIT 273 Game Production ...............................................................3

Video Game Design Track Course .......................................................3

Certificate

Library Information Technology - 1108013019

(Offered at BLC)

The certificate in Library Information Technology prepares students for paraprofessional jobs in libraries. Upon completion of the academic certificate, students will be able to: perform basic library reference services using print and online sources, plan and produce library services and programs, demonstrate information literacy skills, describe the role of libraries as agencies for information services. Courses taken for the Certificate in Library Information Technology may be used for the Associate of Applied Science degree in Information Management and Design, Library Information Technology track and as electives for the AA/AS degrees. All Library Information Technology courses are web-based distance courses.

Required:

LIT 115 Introduction to Reference Services ........................................3
LIN 175 Information Literacy .................................................................3

Students will select one course from each of the following groups:

1. Library Procedures

LIT 124 Library Administration OR .....................................................3
LIT 132 Library Technical Services .......................................................3

2. Library Services

LIT 120 Readers’ Advisory Services OR ..............................................3
LIT 243 Library Services for Children OR ............................................3
LIT 243 Library Services for Young Adults OR ....................................3
LIT 247 Library Services for Adults OR ................................................3
LIT 280 Genealogy Services in Libraries ..............................................3

Total 60

Academic Curricula
Insurance Risk Management

The Certificate program in Insurance and Risk Management is a four-course (12 credit hour) program. 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
INS 182 Multiple Lines Insurance Production .................................. 3
INS 183 Agency Operations and Sales Management ......................... 3
Total Credits 12

Integrated Engineering Technology

The Integrated Engineering Technology Program offers students the opportunity to build a career integrating advanced manufacturing systems with agecy and manufacturing processes, 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 the most manufacturing settings, particularly in manufacturing settings related to the automotive industry.

Certificate

Electrical Engineering Technology – 1442013029

(Offered at BLC)

IET 107 Basic Electricity/Electronics ............................................... 3
IET 203 Programmable Logic Controllers ........................................ 5
IET 205 Robot Maintenance ......................................................... 4
IET 206 Controls and Instrumentation ............................................ 5
Total Credits 17

Diploma

Integrated Engineering Technology – 1442014019

(Offered at BLC)

Area 1 = Written/Oral Communications, or Heritage/Humanities .......... 3
Area 2 = MAT 126 Technical Algebra and Trigonometry OR ................. 3
Higher Level Quantitative Reasoning Course ................................ (3)
Subtotal 6

Technical Courses:
Computer/Digital literacy ......................................................... 3
IET 102 Preventive Maintenance ................................................... 2
IET 104 Blueprint Reading/Schematics .......................................... 2
IET 107 Basic Electricity/Electronics ............................................. 3
IET 108 Mechanical Drive Systems ............................................... 5
IET 109 Safety ........................................................................ 3
IET 110 Welding and Fabrication .................................................. 4
IET 120 Machine Tool Operations ................................................ 4
IET 201 Electrohydraulics/Pneumatics ......................................... 6
IET 203 Programmable Logic Controllers .................................... 5
IET 205 Robot Maintenance ......................................................... 4
IET 206 Controls and Instrumentation ............................................ 5
COE 199 Cooperative Education OR ............................................ 1
Subtotal 47
Total Credits 64

Certificate

Associate in Applied Science

Integrated Engineering Technology – 1442017019

(Offered at BLC)

ENG 101 Writing I ..................................................................... 3
MAT 126 Technical Algebra and Trigonometry OR ......................... 3
Higher Level Quantitative Reasoning Course .............................. (3)
Social/Behavioral Sciences ....................................................... 3
Heritage/Humanities ............................................................... 3
Natural Sciences .................................................................. 3
Oral Communications ........................................................... 3
Subtotal 18

Technical Courses:
Computer/Digital literacy ......................................................... 3
IET 102 Preventive Maintenance ................................................... 2
IET 104 Blueprint Reading/Schematics .......................................... 2
IET 107 Basic Electricity/Electronics ............................................. 3
IET 108 Mechanical Drive Systems ............................................... 5
IET 109 Safety ........................................................................ 3
IET 110 Welding and Fabrication .................................................. 4
IET 120 Machine Tool Operations ................................................ 4
IET 201 Electrohydraulics/Pneumatics ......................................... 6
IET 203 Programmable Logic Controllers .................................... 5
IET 205 Robot Maintenance ......................................................... 4
IET 206 Controls and Instrumentation ............................................ 5
Subtotal 46
Total Credits 64
Computer/Digital literacy must be demonstrated by competency exam or by completing a Computer/Digital literacy course OR demonstrated competency ................................. 0-3

Technical Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td>IET 102</td>
<td>Preventive Maintenance</td>
<td>2</td>
</tr>
<tr>
<td>IET 108</td>
<td>Mechanical Drive Systems</td>
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<td>IET 201</td>
<td>Electrohydraulics/Pneumatics</td>
<td>6</td>
</tr>
<tr>
<td>IET 110</td>
<td>Welding and Fabrication</td>
<td>4</td>
</tr>
<tr>
<td>IET 120</td>
<td>Machine Tool Operations</td>
<td>4</td>
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<tr>
<td><strong>Total Credits</strong></td>
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<td><strong>21</strong></td>
</tr>
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</table>

**Choose one course from the following approved technical support elective courses:**

<table>
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<td>IEC 240</td>
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**Diploma**

Interdisciplinary Early Childhood Education - 1907094019

(Offered at ASC, BLC, ELG, GTW, HEC, HPC, HZC, MDC, MYC, OW, SM, WKC)

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<th>Area 1</th>
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<td>Approaches to Early Childhood Education Curriculum</td>
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<td>IEC 200</td>
<td>Child Guidance</td>
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<td>IEC 221</td>
<td>Creative Expressions in IECE</td>
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<td>Infant and Toddler Education and Programming</td>
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**Certificate**

Interdisciplinary Early Childhood Education Technical Studies - 1907093019

(Offered at ASC, BLC, ELG, HPC, HZC, MDC, MYC, OW, SM, WKC)

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**Total Credits:**

165
Child Care Assistant - 1907093039

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

Required:
IEC 101 Orientation to Early Childhood Education ............................................ 3
IEC 102 Foundations of Early Childhood Education ............................................ 3
Any IECE three (3) hour course with the exception of IECE 190, IECE 230, IECE 250, and IECE 291 ............................................ 3
Total Credits: 9

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:
IEC 101 Orientation to Early Childhood Education ............................................ 3
Total Credits: 3

Early Childhood Administrator - 1907093059

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

Option One: Course Work

Required:
IEC 101 Orientation to Early Childhood Education ............................................ 3
IEC 102 Foundations of Early Childhood Education ............................................ 3
IEC 240 Administration of Early Childhood Education ............................................ 3
BAS 200 Small Business Management OR .................................................... 3
IEC 230 Business Administration of ECE Programs ............................................ 3
Total Credits: 12

Option Two: With a current CDA Articulated credit for IEC 101 and IEC 102

Required:
IEC 240 Administration of Early Childhood Education ............................................ 3
BAS 200 Small Business Management OR .................................................... 3
IEC 230 Business Administration of ECE Programs ............................................ 3

Option Three: With Life Skills Portfolio to replace competencies

for IEC 101 and IEC 102

Required:
IEC 240 Administration of Early Childhood Education ............................................ 3
BAS 200 Small Business Management OR .................................................... 3
IEC 230 Business Administration of ECE Programs ............................................ 3
Life Skills is defined as a Total of five years (10,000 Hours) of paid, full-time work experience in a licensed child care facility. Two and one-half years (5,000 Hours) must have been within the last five (5) years.

School Age Child Care - 1907093069

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

IEC 101 Orientation to Early Childhood Education ............................................ 3
IEC 102 Foundations of Early Childhood Education ............................................ 3
IEC 130 Early Childhood Development .......................................................... 3
IEC 200 Child Guidance .................................................................................... 3
IEC 250 School Age Child Care ........................................................................ 3
Total Credits: 15

Invasive Cardiology

The goal of the Invasive Cardiology Program is to provide a competency-based didactic course with a well-rounded clinical experience. The student will be exposed to and expected to acquire skills, attitudes, and habits that are common to professionals in the medical field. Graduates will be prepared for a professional career as an Invasive Cardiovascular Technologist.

Certificate

Invasive Cardiology – 5109153019

(Offered at JFC)

DMS 105 Introduction to Cardiology .......................................................... 3
IVC 140 Invasive Cardiology I ................................................................. 16
IVC 150 Invasive Cardiology II ................................................................. 3
IVC 160 Invasive Cardiology Clinical Education I ....................................... 6
IVC 165 Invasive Cardiology Clinical Education II ..................................... 6
Total Credits: 44

Logistics and Operations Management

The Logistics and Operations Management program is designed to teach students about the sourcing, procurement, conversion, and logistics concepts associated with the production and delivery of goods and services.

Associate in Applied Science

Logistics and Operations Management – 5202037019

(Offered at WKC)

General Education Courses

ENG 101 Writing I ................................................................. 3
MAT 110 Quantitative Reasoning course ................................................. 3
Natural Sciences ............................................................................. 3
Social/Behavioral Sciences (Must be a different course from the ECO course selected in the Technical or Support Courses) ................................................. 3
Heritage/ Humanities ........................................................................ 3
COM 181 Basic Public Speaking ......................................................... 3
COM 252 Introduction to Interpersonal Communication .................... 3
Subtotal: 18

Technical or Support Courses

ACC 201 Financial Accounting ......................................................... 3
ACC 202 Managerial Accounting ......................................................... 3
BAS 160 Introduction to Business ......................................................... 3
BAS 256 International Business ........................................................... 3
BAS 283 Principles of Management ....................................................... 3
BAS 287 Supervisory Management ......................................................... 3
BAS 289 Operations Management ........................................................ 3
TEC 200 Technical Communications OR ............................................. 3
ENG 102 Writing II ................................................................. 3
LOM 100 Introduction to Logistics Management .................................... 3
LOM 101 Transportation ................................................................. 3
LOM 102 Supply Chain Management .................................................... 3
LOM 180 Project Management OR ....................................................... 3
LOM 210 Lean for Logistics ............................................................... 3
LOM 202 Applied Supply Chain Management .................................... 3
ECO 101 Contemporary Economic Issues OR ..................................... 3
ECO 150 Global Economic Issues OR ............................................... 3
ECO 201 Principles of Microeconomics OR ....................................... 3
### Academic Curricula

**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 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**

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<td>MFG 175</td>
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<td>Circuits I</td>
<td>5</td>
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<tr>
<td>ELT 201</td>
<td>Operations Management OR</td>
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<tr>
<td>MFG 256</td>
<td>Production Management</td>
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<td>MFG 135</td>
<td>Fundamentals of Mechatronics</td>
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<td>QMS 101</td>
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### General Education

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<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra</td>
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<td>MAT 155</td>
<td>Trigonometry</td>
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<td>STA 220</td>
<td>Statistical Method OR</td>
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### Core

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### Technical Electives

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*Digital literacy must be demonstrated either by competency exam or by completing an approved digital literacy course.

**Logistics Management – 5202033019**

(Offered at WKC)

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**Supply Chain Management – 5202033029**

(Offered at WKC)

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**Logistics Technology – 5202033039**

(Offered at WKC)

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**International Logistics – 5202033049**

(Offered at WKC)

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<td>IMT 151</td>
<td>Maintaining Industrial Equipment Lab</td>
<td>2</td>
</tr>
<tr>
<td>MFG 145</td>
<td>Manufacturing Processes OR</td>
<td>3</td>
</tr>
<tr>
<td>CMM 110</td>
<td>Fundamentals of Machine Tool A</td>
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</tr>
<tr>
<td>CMM 112</td>
<td>Fundamentals of Machine Tool B</td>
<td>4</td>
</tr>
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<td>CMM 118</td>
<td>Metrology and Control Charts</td>
<td>3</td>
</tr>
<tr>
<td>CMM 130</td>
<td>Manual Programming</td>
<td>3</td>
</tr>
<tr>
<td>CMM 132</td>
<td>CAD/CAM/CNC</td>
<td>3</td>
</tr>
<tr>
<td>MFG 256</td>
<td>Production Management</td>
<td>3</td>
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<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
</tr>
<tr>
<td>QMS 220</td>
<td>Quality Audits</td>
<td>3</td>
</tr>
<tr>
<td>QMS 240</td>
<td>Statistics for Quality I (if ST291 is not taken in the core)</td>
<td>3</td>
</tr>
<tr>
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<td><strong>Subtotal</strong></td>
<td><strong>14</strong></td>
</tr>
<tr>
<td></td>
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</table>

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)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>FPX 100</td>
<td>Fluid Power</td>
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<tr>
<td>FPX 101</td>
<td>Fluid Power Lab</td>
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</tr>
<tr>
<td>ELT 110</td>
<td>Circuits I</td>
<td>5</td>
</tr>
<tr>
<td>IMT 150</td>
<td>Maintaining Industrial Equipment</td>
<td>3</td>
</tr>
<tr>
<td>IMT 151</td>
<td>Maintaining Industrial Equipment Lab</td>
<td>2</td>
</tr>
<tr>
<td>EET 270</td>
<td>Electrical Motor Controls I</td>
<td>2</td>
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<td>EET 271</td>
<td>Electrical Motor Controls Lab</td>
<td>2</td>
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<td><strong>Total Credits</strong></td>
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**Quality Control - 1506133049 (Offered at GTW)**

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra</td>
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**Core**

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<tr>
<td>BRX 112</td>
<td>Blueprint Reading for Machinists OR</td>
<td>4</td>
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<tr>
<td>BRX 120</td>
<td>Basic Blueprint Reading OR</td>
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</tr>
<tr>
<td>CAD 102</td>
<td>Drafting Fundamentals OR</td>
<td>(4)</td>
</tr>
<tr>
<td>CAD 112</td>
<td>Engineering Graphics</td>
<td>(9)</td>
</tr>
<tr>
<td>CMM 118</td>
<td>Metrology and Control Charts</td>
<td>3</td>
</tr>
<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
</tr>
<tr>
<td>QMS 220</td>
<td>Quality Audits</td>
<td>3</td>
</tr>
<tr>
<td>STA 220</td>
<td>Statistics OR</td>
<td>3</td>
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<tr>
<td>QMS 240</td>
<td>Statistics for Quality I</td>
<td>(3)</td>
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<td><strong>Total</strong></td>
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**Operations Management - 5202013369 (Offered at BSC, GTW)**

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
<td>(3)</td>
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<td></td>
<td><strong>Subtotal</strong></td>
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**General Education**

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<tbody>
<tr>
<td>BAS 160</td>
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<tr>
<td>BAS 287</td>
<td>Supervisory Management OR</td>
<td>3</td>
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<tr>
<td>BAS 288</td>
<td>Personal and Organizational Leadership OR</td>
<td>(3)</td>
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<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>(3)</td>
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<tr>
<td>BAS 289</td>
<td>Operations Management OR</td>
<td>3</td>
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<td>MFG 256</td>
<td>Production Management</td>
<td>(3)</td>
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**Fundamentals of Mechatronics - 1500003219 (Offered at BSC)**

<table>
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<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>MFG 135</td>
<td>Fundamentals of Mechatronics OR</td>
<td>6</td>
</tr>
<tr>
<td>MFG 125</td>
<td>Special Topics in Engineering Technology</td>
<td>Fundamentals of Mechatronics – A AND</td>
</tr>
<tr>
<td>MFG 130</td>
<td>Special Topics in Engineering Technology</td>
<td>Fundamentals of Mechatronics – B</td>
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**Enhanced Operator – 1506133119 (Offered at GTW)**

<table>
<thead>
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<th>Course Title</th>
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<tbody>
<tr>
<td>WPP 2001</td>
<td>Soft Skills</td>
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<tr>
<td>ISX 1001</td>
<td>Safety &amp; Universal Precaution</td>
<td>1</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics</td>
<td>3</td>
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<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
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<tr>
<td>CMM 118</td>
<td>Metrology and Control Charts</td>
<td>2</td>
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<tr>
<td>MFG 175</td>
<td>Lean Operations</td>
<td>2</td>
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<tr>
<td>IET 1206</td>
<td>Hand &amp; Power Tools</td>
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<td>QMS 299</td>
<td>Selected Topics in Quality Management Systems: Yellow Belt Certification</td>
<td>(3)</td>
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<td></td>
<td><strong>Subtotal</strong></td>
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</tbody>
</table>

**Manufacturing Industrial Technology**

Two programs are offered under the broader heading of MIT. They are Electrical Technology and Industrial Maintenance Technology.

### MIT: Electrical Technology

The Electrical Technology Program focuses on preparing students for various entry-level electrical positions in industry and the building trades. The study of electrical theory in the classroom and the practical application of that theory in labs provide the foundation of this program. This program is versatile in offering three different tracks within the Associate of Applied Science degree. A variety of certificates and diplomas serve as pathways to the AAS degree tracks or as meeting specific training needs.

Students enrolled in the Electrical Technology program are required to achieve a minimum grade of “C” in the technical core and in those courses selected as technical electives.

### Associate in Applied Science

#### Electrical Technology - 4603027039 (Offered at BSC, BLC, ELC, GTW, HPC, MDC, OWC, SKY, WKC)

**General Education:**

<table>
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<tr>
<th>Course Code</th>
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<th>Credit Hours</th>
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<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>MAT 116</td>
<td>Technical Mathematics OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 126</td>
<td>Technical Algebra &amp; Trigonometry OR</td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td>Higher Level Quantitative Reasoning Course</td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td>Natural Sciences</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Social/Behavioral Sciences</td>
<td>3</td>
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<tr>
<td></td>
<td>Heritage / Humanities</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Oral Communications</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>18</strong></td>
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</tbody>
</table>
In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

### Course Selections

#### Technical Core:
- **ELT 110** Circuits I OR .......................................................... 5
- **EET 119** Basic Electricity ................................................. (5)
- Approved Course from the Technical Core List .................. 4-5
- **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
- **ELT 114** Circuits II .......................................................... 5
- **EET 150** Transformers AND .............................................. 2
- **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 ............................. 1
- **EET 276** Programmable Logic Controllers AND ............... 2
- **EET 277** Programmable Logic Controllers Lab ............... 2
- **ELT 260** Robotics and Industrial Automation ...................... 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
- **ELT 114** Circuits II .......................................................... 5
- **EET 150** Transformers AND .............................................. 2
- **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 ............................. 1
- **EET 276** Programmable Logic Controllers AND ............... 2
- **EET 277** Programmable Logic Controllers Lab ............... 2
- **ELT 260** Robotics and Industrial Automation ...................... 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

### Technical Core List: Pick a course(s) for a minimum of 4 credits and a maximum of 5 credits from this list.

- **ELT 114** Circuits II .......................................................... 5
- **EET 150** Transformers AND .............................................. 2
- **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 ............................. 1
- **EET 276** Programmable Logic Controllers AND ............... 2
- **EET 277** Programmable Logic Controllers Lab ............... 2
- **ELT 260** Robotics and Industrial Automation ...................... 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

Note: This list is not all-inclusive. Other courses may be substituted at the discretion of the program instructor/advisor.

### Technical Electives:
- **ELT 110** Circuits I OR .......................................................... 5
- **EET 119** Basic Electricity ................................................. (5)
- Approved Course from the Technical Core List .................. 4-5
- **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
- **ELT 114** Circuits II .......................................................... 5
- **EET 150** Transformers AND .............................................. 2
- **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 ............................. 1
- **EET 276** Programmable Logic Controllers AND ............... 2
- **EET 277** Programmable Logic Controllers Lab ............... 2
- **ELT 260** Robotics and Industrial Automation ...................... 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

### General Education:

#### Area 1
- Written Communication OR ............................................... 3
- Heritage/ Humanities OR ................................................ 3
- Oral Communications .................................................... 3

#### Area 2
- Technical Mathematics OR ............................................... 3
- Technical Algebra & Trigonometry OR ................................. 3
- Higher Level Quantitative Reasoning Course ..................... 3

#### Subtotal
- 6

### Technical Core:

#### Construction Electrician Track - 460302702

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

- **EET 154** Electrical Construction I AND ............................ 2
- **EET 252** Electrical Construction II AND ............................ 2
- **EET 253** Electrical Construction II Lab OR ........................ 2
- **EET 254** Electrical Construction AND ................................ (3)
- **EET 255** Electrical Construction Lab ................................ (4)
- **EET 276** Programmable Logic Controllers AND ................ 2
- **EET 277** Programmable Logic Controllers Lab ................ 2
- **ELT 114** Circuits II .......................................................... 5
- **EET 150** Transformers AND .............................................. 2
- **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 ............................. 1
- **EET 276** Programmable Logic Controllers AND ............... 2
- **EET 277** Programmable Logic Controllers Lab ............... 2
- **ELT 114** Circuits II .......................................................... 5
- **EET 150** Transformers AND .............................................. 2
- **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 ............................. 1
- **EET 276** Programmable Logic Controllers AND ............... 2
- **EET 277** Programmable Logic Controllers Lab ............... 2

Note: This list is not all-inclusive. Other courses may be substituted at the discretion of the program instructor/advisor.

### Motor Controls Electrician Track - 460302703

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

- **ELT 114** Circuits II .......................................................... 5
- **EET 119** Basic Electricity ................................................. (5)
- Approved Course from the Technical Core List .................. 4-5
- **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
- **ELT 114** Circuits II .......................................................... 5
- **EET 150** Transformers AND .............................................. 2
- **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 ............................. 1
- **EET 276** Programmable Logic Controllers AND ............... 2
- **EET 277** Programmable Logic Controllers Lab ............... 2
- **ELT 114** Circuits II .......................................................... 5
- **EET 150** Transformers AND .............................................. 2
- **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 ............................. 1
- **EET 276** Programmable Logic Controllers AND ............... 2
- **EET 277** Programmable Logic Controllers Lab ............... 2

Note: This list is not all-inclusive. Other courses may be substituted at the discretion of the program instructor/advisor.

### Diploma

#### Electrical Technology - 4603024049

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

#### General Education:

#### Area 1
- Written Communication OR ............................................... 3
- Heritage/ Humanities OR ................................................ 3
- Oral Communications .................................................... 3

#### Area 2
- Technical Mathematics OR ............................................... 3
- Technical Algebra & Trigonometry OR ................................. 3
- Higher Level Quantitative Reasoning Course ..................... 3

#### Subtotal
- 6

### Total Credits
- 60-63

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.
### Industrial Electrician Track - 460302401
*(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, MYC, OWC, SEC, SKY, SMC, WKC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Description</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>EET 154</td>
<td>Electrical Construction AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 155</td>
<td>Electrical Construction I Lab AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 252</td>
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<td>Electrical Construction II Lab OR</td>
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</tr>
<tr>
<td>EET 254</td>
<td>Electrical Construction AND</td>
<td>(3)</td>
</tr>
<tr>
<td>EET 255</td>
<td>Electrical Construction Lab</td>
<td>(4)</td>
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<td>EET 256</td>
<td>Programmable Logic Controllers AND</td>
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<td>(3)</td>
</tr>
<tr>
<td>EET 273</td>
<td>Electrical Motor Controls I Lab AND</td>
<td>(2)</td>
</tr>
<tr>
<td>EET 274</td>
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**Subtotal** 17-18

**Total Credits** 48-50

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

### Construction Electrician Track - 460302402
*(Offered at BLC, BSC, ELC, GTW, HPC, HZC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)*

<table>
<thead>
<tr>
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<th>Course Description</th>
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<tbody>
<tr>
<td>EET 154</td>
<td>Electrical Construction AND</td>
<td>2</td>
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<tr>
<td>EET 155</td>
<td>Electrical Construction I Lab AND</td>
<td>2</td>
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<tr>
<td>EET 252</td>
<td>Electrical Construction II AND</td>
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<tr>
<td>EET 253</td>
<td>Electrical Construction II Lab OR</td>
<td>2</td>
</tr>
<tr>
<td>EET 254</td>
<td>Electrical Construction AND</td>
<td>(3)</td>
</tr>
<tr>
<td>EET 255</td>
<td>Electrical Construction Lab</td>
<td>(4)</td>
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**Technical Electives**

**Subtotal** 17-18

**Total Credits** 48-50

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

### Motor Controls Electrician Track - 460302403
*(Offered at BLC, BSC, HPC, OWC, WKC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Description</th>
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<tbody>
<tr>
<td>EET 272</td>
<td>Electrical Motor Controls AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 273</td>
<td>Electrical Motor Controls II Lab AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 276</td>
<td>Programmable Logic Controllers AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 277</td>
<td>Programmable Logic Controllers Lab OR</td>
<td>2</td>
</tr>
<tr>
<td>EET 278</td>
<td>Electrical Motor Controls II and PLC's AND</td>
<td>(3)</td>
</tr>
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<td>EET 279</td>
<td>Electrical Motor Controls II and PLC's Lab</td>
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<td>FPL 100</td>
<td>Fluid Power Lab</td>
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**Subtotal** 17-20

**Total Credits** 48-50

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.

### Certificates

#### Electrical Construction - 4603023029
*(Offered at ASC, BLC, BSC, ELC, HPC, HZC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)*

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<td>EET 119</td>
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<tr>
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**Total Credits** 5-7

#### Electrician Trainee Level I - 4603023039
*(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)*

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**Total Credits** 8

#### Electrician Trainee Level II - 4603023059
*(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)*

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**Total Credits** 13

#### Residential Electricity Level I - 4603023049
*(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)*

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**Total Credits** 14

#### Residential Electricity Level II - 4603023069
*(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)*

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**Total Credits** 21-22

#### Electrical Motor Control Level I - 4603023079
*(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, MYC, OWC, SEC, SKY, SMC, WKC)*

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<td>Basic Electricity</td>
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**Total Credits** 5-7
### 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, Workplace Organization (5S), Lean Manufacturing, Problem Solving and Maintenance Reliability, coupled with Personal Behavior development (Attendance, Communication, Diligence, Teamwork, Initiative, and Interpersonal Relations) within the program pathway. Successful students apply learned skills throughout the program in the campus classroom, campus laboratory and manufacturing workplace. The advanced manufacturing technician (AMT) track develops multiple skills within the industrial maintenance pathway for manufacturing employers.

Progression in the Industrial Maintenance Technology program is contingent upon achievement of a grade “C” or better in all courses and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

**AMTEC Track**

This program affords students the opportunity to achieve an understanding of the advanced skills needed to obtain a successful career in a constantly changing and globally competitive workforce. Students are trained in the multi-skilled maintenance trade with an emphasis on those skills needed in automotive industrial facilities.

Progression in the Industrial Maintenance AMTEC track is contingent upon achievement of a grade of “C” or better in each technical course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).
## Associate in Applied Science

### Industrial Maintenance Technology - 4703037019
(Offered at ASC, BSC, BLC, ELC, GTW, HEC, HPC, JFC, MYC, OWY, SKY, SMC, WKJ)

#### General Education Core:

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<td>Natural Sciences</td>
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<td>Heritage/Humanities</td>
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<td>Social/Behavioral Sciences</td>
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#### Industrial Maintenance Track- 470303701
(Offered at ASC, BSC, BLC, ELC, GTW, HEC, HPC, JFC, MYC, OWY, SKY, SMC, WKJ)

#### Technical Core:

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<tr>
<td>BRX 120</td>
<td>Basic Blueprint Reading OR</td>
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<td>FPX 101</td>
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<tr>
<td>IMT 110</td>
<td>Industrial Maintenance Electrical Principles AND</td>
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<td>IMT 111</td>
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<td>Maintaining Industrial Equipment I AND</td>
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<td>IMT 151</td>
<td>Maintaining Industrial Equipment I Lab</td>
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<td>IMT 220</td>
<td>Industrial Maintenance Electrical Motor Controls I AND</td>
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<td>IMT 221</td>
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<td>EET 270</td>
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<td>EET 271</td>
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#### Technical Electives:

Eighteen (18) credit hours of electives must be taken from the approved list. The list is not all inclusive. Other technical elective courses may be taken with approval of the program instructor/advisor.

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**If courses equaling 10 credits are taken, five (5) credits may be used as electives.**
**Advanced Manufacturing Technician Track - 470303702**
*(Offered at BSC, BLC, ELC, GTW, HEC, HPC, JFC, SKY, SMC)*

### Technical Core:

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<td>Fundamentals of Machine Tools – A</td>
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<td>IET 198</td>
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<td>IMT 200</td>
<td>Industrial Robotics and Robotic Maintenance</td>
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**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:**

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**Total Credits: 62-66**

**Industrial Maintenance Technician - 4703034049**
*(Offered at ASC, BLC, BSC, ELC, GTW, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WK)*

### General Education:

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

**Area 2 =**
- MAT 116 Technical Mathematics OR Higher ......................................................................................... 3

**Subtotal: 6**

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<td>Applied Fluid Power</td>
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<td>EET 264</td>
<td>Rotating Machinery AND</td>
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**Total Credits: 49-53**

*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.*
Certificates

Fluid Power Mechanic - 4703033129
(Offered at ASC, BLC, BSC, HEC, HPC, MYC, OWC, SMC, WKC)
FPX 100 Fluid Power AND .....................................................3
FPX 101 Fluid Power Lab OR ..................................................2
ELT 265 Applied Fluid Power ................................................2
MST 200 Advanced Hydraulic Systems AND ..........................3
MST 201 Advanced Hydraulic Systems Lab OR ........................2
MST 204 Advanced Pneumatic Systems AND ..........................3
MST 205 Advanced Pneumatic Systems Lab ................................(2)
Total Credits 8-10

Industrial Maintenance Machinists Mechanic - 4703033119
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)
BRX 120 Basic Blueprint Reading OR ........................................(2)
BRX 110 Blueprint Reading for Machinist OR ..............................(3)
BRX 112 Blueprint Reading for Machinist OR ..............................(4)
ELT 101 Blueprint Reading AND .............................................(2)
IMT 100 Welding for Maintenance AND ....................................(2)
IMT 101 Welding for Maintenance Lab OR ................................2
WLD 120 Shielded Metal Arc-Welding AND ................................(2)
WLD 121 Shielded Metal Arc Welding Fillet Lab OR .....................(3)
WLD 140 Gas Metal Arc Welding AND ......................................(2)
WLD 141 Gas Metal Arc Welding Fillet Lab OR ............................(3)
WLD 152 Basic Welding B ......................................................(5)
IMT 115 Maintenance Machining I AND ....................................2
IMT 116 Maintenance Machining I Lab OR .................................5
CMM 111 Fundamentals of Machine Tools OR ..............................(3)
CMM 114 Fundamentals of Machine Tools -B-..............................(3)
CMM 110 Fundamentals of Machine Tools -B-..............................(3)
IMT 150 Maintaining Industrial Equipment I ..............................3
IMT 151 Maintaining Industrial Equipment I Lab ........................2
Total Credits 19-21

Industrial Maintenance Electrical Mechanic - 4703033159
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)
FPX 100 Fluid Power AND .....................................................3
FPX 101 Fluid Power Lab OR ..................................................2
ELT 265 Applied Fluid Power ................................................2
IMT 110 Industrial Maintenance Electrical Principles AND ..........3
IMT 111 Industrial Maintenance Electrical Principles OR .............3
IMT 112 Industrial Maintenance Electrical Principles Lab OR ........2
ELT 110 Circuits I OR ............................................................2
EET 119 Basic Electricity .......................................................(5)
IMT 220 Industrial Maintenance Electrical Motor Controls I AND ....3
IMT 221 Industrial Maintenance Electrical Motor Controls I Lab OR .2
EET 270 Electrical Motor Controls I AND ..................................(2)
EET 271 Electrical Motor Controls I Lab OR ...............................2
ELT 244 Electrical Machinery and Controls OR ..........................(3)
IMT 120 Industrial Maintenance Rotating Machinery AND .............3
IMT 121 Industrial Maintenance Rotating Machinery Lab OR ..........2
EET 264 Rotating Machinery AND ............................................(2)
EET 265 Rotating Machinery Lab OR .........................................(2)
IMT 280 Advanced Programmable Logic Controllers AND ..........(3)
IMT 281 Advanced Programmable Logic Controllers Lab OR ..........(2)
EET 276 Programmable Logic Controllers AND ..........................2
EET 277 Programmable Logic Controllers Lab ............................2
Total Credits 12-15

Industrial Maintenance Mechanic Level I - 4703033139
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)
FPX 100 Fluid Power AND .....................................................3
FPX 101 Fluid Power Lab OR ..................................................2
ELT 265 Applied Fluid Power ................................................2
IMT 110 Industrial Maintenance Electrical Principles AND ..........3
IMT 111 Industrial Maintenance Electrical Principles OR .............3
ELT 110 Circuits I OR ............................................................2
EET 119 Basic Electricity .......................................................(5)
IMT 150 Maintaining Industrial Equipment I ..............................3
IMT 151 Maintaining Industrial Equipment I Lab ........................2
Total Credits 13-15

Industrial Maintenance Mechanic Level II - 4703033149
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)
BRX 120 Basic Blueprint Reading OR ........................................(2)
BRX 110 Basic Blueprint Reading for Machinist OR ......................(2)
BRX 112 Blueprint Reading for Machinist OR ..............................(4)
ELT 102 Blueprint Reading ....................................................(2)
FPX 100 Fluid Power AND .....................................................3
FPX 101 Fluid Power Lab OR ..................................................2
ELT 265 Applied Fluid Power ................................................2
IMT 110 Industrial Maintenance Electrical Principles AND ..........3
IMT 111 Industrial Maintenance Electrical Principles OR .............3
IMT 112 Industrial Maintenance Electrical Principles Lab OR ........2
EET 110 Circuits I OR ............................................................2
EET 119 Basic Electricity .......................................................(5)
IMT 150 Maintaining Industrial Equipment I ..............................3
IMT 151 Maintaining Industrial Equipment I Lab ........................2
Total Credits 22-26

Electro-hydraulic Technician - 4703033169
(Offered at BLC, HPC, JFC, MYC, OWC, SMC)
IMT 111 Industrial Maintenance Electrical Principles AND ..........3
IMT 112 Industrial Maintenance Electrical Principles Lab OR ........2
EET 110 Circuits I OR ............................................................2
EET 250 Basic Electricity .......................................................(5)
FPX 100 Fluid Power AND .....................................................3
FPX 101 Fluid Power Lab OR ..................................................2
EET 265 Applied Fluid Power ................................................2
CHE 140 Introductory General Chemistry ..................................3
CHE 145 Introductory General Chemistry Lab ............................1
GEN 276 Employment and Professional Skills ............................1
IMT 140 Industrial Mechanics ................................................3
IMT 141 Industrial Mechanics Lab ..........................................3
ITE 250 Team Dynamics and Problem Solving ...........................3
ISX 100 Industrial Safety ..........................................................3
MAT 116 Basic Electronics .....................................................3
TEC 290 Digital Literacy .......................................................0-3
Total Credits 13-15

Chemical Operator - 4703033179
(Offered at MYC, WKC)
CHE 140 Introductory General Chemistry ..................................3
CHE 145 Introductory General Chemistry Lab ............................1
GEN 276 Employment and Professional Skills ............................1
IMT 140 Industrial Mechanics ................................................3
IMT 141 Industrial Mechanics Lab ..........................................3
ITE 250 Team Dynamics and Problem Solving ...........................3
ISX 100 Industrial Safety ..........................................................3
MAT 116 Basic Electronics .....................................................3
QMS 101 Introduction to Quality Systems .................................3
TEC 290 Technical Communications ........................................3
Digital Literacy .......................................................0-3
Total Credits 27-30
Presswork and Die Maintenance Technician Level I – 4703033209
(Offered at OWC, SMC)

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<td>Fundamentals of Machine Tools A AND</td>
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<td>CMM 112</td>
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<td>Welding for Maintenance AND</td>
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Presswork and Die Maintenance Technician Level II – 4703033219
(Offered at OWC, SMC)

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Industrial Maintenance Robotics Technician – 4703033239
(Offered at BSC, ELC, HPC, JFC, MYC, SMC, WKC)

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<td>Electrical Motor Controls I AND</td>
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<td>EET 271</td>
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Marine Technology

The Marine Technology curriculum is designed to provide a strong theoretical base for employees of the inland marine industry. The program introduces students to basic inland marine principles and concepts by applying contemporary skills in a variety of employment positions based on industry needs. It provides students with a strong foundation of managerial and operational knowledge by using a problem-solving approach in state-of-the-art classroom and work experience environments. It builds leadership, management, communication skills, and professional ethics, which serve as a foundation for future development and career success.

The program contains core technical courses and advanced courses in each track to address the employment needs of the domestic market.

Associate in Applied Science

Marine Technology – 4903997019
(Offered at WKC)

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<tr>
<td>GEN 104</td>
<td>Development of Leadership</td>
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<td>MRN 101</td>
<td>Anatomy of a Towboat</td>
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<td>MRN 103</td>
<td>Applied Marine Weather</td>
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Technical Core (required for all tracks):

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<td>MRN 101</td>
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<td>MRN 102</td>
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Wheelhouse Management Track – 490399701
(Offered at WKC)

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<td>BAS 283</td>
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<td>BAS 287</td>
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<td>MRN 200</td>
<td>Shipboard Deck Operations</td>
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<td>MRN 201</td>
<td>Rules of the Road</td>
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<td>MRN 202</td>
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Marine Engineering Track – 490399702
(Offered at WKC)

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<td>MRN 206</td>
<td>Marine Diesel</td>
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<td>MRN 212</td>
<td>Marine Fluid Systems</td>
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Marine Logistics Operations Track – 490399703
(Offered at WKC)

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<td>Personal Finance</td>
<td></td>
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<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
<td></td>
</tr>
<tr>
<td>BAS 289</td>
<td>Operations Management</td>
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<tr>
<td>MRN 208</td>
<td>Inland River Systems</td>
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</tr>
<tr>
<td>LOM 100</td>
<td>Introduction to Logistics Management</td>
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<tr>
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## Marine Culinary Management Track – 490399705
*(Offered at WKC)*

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<tr>
<td>CUL 100</td>
<td>Introduction to Culinary Arts</td>
<td>2</td>
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<tr>
<td>CUL 200</td>
<td>Sanitation and Safety</td>
<td>2</td>
</tr>
<tr>
<td>CUL 230</td>
<td>Basic Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>CUL 280</td>
<td>Cost and Control</td>
<td>3</td>
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<td>MRN 208</td>
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### Certificates

#### Marine Technology Business – 4903993019
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#### Marine Industry - 4903993029
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<tr>
<td>MRN 101</td>
<td>Anatomy of a Towboat</td>
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<tr>
<td>MRN 102</td>
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<td>Applied Marine Weather</td>
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<td>Marine Crew Wellness</td>
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<td>MRN 203</td>
<td>Environmental Protection Rules</td>
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### Marine Culinary – 4903993039
*(Offered at WKC)*

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<td>Basic Nutrition</td>
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<td>CUL 280</td>
<td>Cost and Control</td>
<td>3</td>
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<td>MRN 100</td>
<td>Introduction to Marine Technology</td>
<td>3</td>
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<tr>
<td>MRN 208</td>
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### Marine Engineering – 4903993049
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<td>Environmental Protection Rules</td>
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<td>MRN 204</td>
<td>Marine Electrical Systems</td>
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<td>Marine Diesel</td>
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<td>MRN 212</td>
<td>Marine Fluid Systems</td>
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## Massage Therapy Technology

The Massage Therapy Technology degree offers a flexible, innovative curriculum designed to meet the changing needs of the health care marketplace with relation to Massage Therapy. The program will educate students in the principles of integrative massage modalities and the promotion of health and well-being. The program will provide students with the skills and knowledge necessary to work in a variety of settings, including but not limited to hospitals, massage clinics, rehabilitation clinics, spas, behavioral health clinics, wellness/fitness centers, doctor’s offices, private practice offices, and athletic programs at the high school, college, or professional level.

The Massage Therapy Certificate Program will train Massage Therapist in techniques ranging from entry level Swedish Massage, for its therapeutic and relaxation benefits, through advanced clinical massage (sports and orthopedic massage) for the specific needs of athletes and to aid in recovery and rehabilitation from illness, injury and surgery. Using medical models, therapists will have expanded knowledge in Anatomy and Physiology, Kinesiology and Medical Terminology. Other modalities are introduced to the Massage Therapist’s education to enhance their skills and knowledge. Business education is included in the program to assist therapists in the operation of a private practice.

CPR requirements must be successfully completed prior to enrolling in MSG 232, Advanced Clinical Massage I. The course must be Professional or Healthcare Provider. Completion of CPR 100 meets program requirements.

### Associate in Applied Science

#### Massage Therapy Technology - 5109997019
*(Offered at GTW)*

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<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
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<td>ENG 103</td>
<td>Biological Communication</td>
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<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology OR</td>
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<tr>
<td>BIO 137</td>
<td>Human Anatomy and Physiology I AND</td>
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<tr>
<td>BIO 139</td>
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<tr>
<td>PSY 110</td>
<td>General Psychology</td>
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<td>CLA 131</td>
<td>Medical Terminology from Greek and Latin OR</td>
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<td>AHS 115</td>
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<td>SFA 100</td>
<td>Safety and First Aid</td>
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<td>BAS 288</td>
<td>Personal and Organizational Leadership</td>
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<td>MSG 117</td>
<td>Musculoskeletal Anatomy and Physiology I</td>
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<td>MSG 119</td>
<td>Musculoskeletal Anatomy and Physiology II</td>
<td>4</td>
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<tr>
<td>MSG 132</td>
<td>Massage Technique I</td>
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<td>MSG 134</td>
<td>Massage Technique II</td>
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<td>MSG 234</td>
<td>Advanced Clinical Massage II</td>
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<td>MSG 286</td>
<td>Massage Therapy Student Clinic</td>
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<td>MSG 220</td>
<td>Massage Therapy Practice</td>
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### Total Credits (AAS)

60-67
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.

Certificate
Massage Therapy - 5109993019
(Offered at GTW)
MIT 103 Medical Office Terminology OR .......................... 3
CLG 131 Medical Terminology from Greek and Latin OR .......................... (3)
AHS 115 Medical Terminology ..................................... 3
MSG 117 Musculoskeletal Anatomy and Physiology I ............... 4
MSG 119 Musculoskeletal Anatomy and Physiology II ............... 4
MSG 132 Massage Technique I ........................................ 3
MSG 134 Massage Technique II ...................................... 3
MSG 232 Advanced Clinical Massage I ................................ 3
MSG 234 Advanced Clinical Massage II ................................ 3
MSG 286 Massage Therapy Student Clinic ........................... 2
MSG 220 Massage Therapy Pathology ................................ 3
Total Credits 29

Academic Curricula

Construction Mason - 4601014019
(Offered at BLC, BSC, JFC)
General Education: 6-9 credit hour requirement for diplomas in areas 1-3
Area 1 = Written Communication, Oral Communications, or Heritage/Humanities .............................................. 3
Area 2 = Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning .............................................. 3
Subtotal 6

Technical Courses:
Computer/Digital Literacy course OR demonstrated competency .................................................. 0-3
BRX 220 Blueprint Reading for Construction ....................... 3
ISX 100 Industrial Safety OR ........................................... 3
ISX 101 Introduction to Industrial Safety ........................... (3)
MSY 105 Introductory Masonry ....................................... 3
MSY 115 Intermediate Masonry ...................................... 3
MSY 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 291 Special Problems III ........................................ (3)
Technical Electives* ...................................................... 6
Subtotal 42-45
Total Credits 48-51

Electives (Optional):
MSY 291 Special Problems III ........................................ (3)

Construction Bricklayer - 4601013039
(Offered at BLC, BSC, JFC)
BRX 220 Blueprint Reading for Construction .......................... 3
ISX 100 Industrial Safety OR ........................................... 3
ISX 101 Introduction to Industrial Safety ........................... (3)
MSY 105 Introductory Masonry ....................................... 3
MSY 113 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 253 Masonry Floors and Steps ................................ 3
MSY 257 Stone .......................................................... 3
Total Credits 36

Electives (Optional):
MSY 291 Special Problems III ........................................ (1-3)

Stone Mason - 4601013049
(Offered at BLC, BSC, JFC)
BRX 220 Blueprint Reading for Construction .......................... 3
ISX 105 Introductory Masonry ......................................... 3
ISX 113 Intermediate Masonry ....................................... 3
MSY 205 Advanced Masonry .......................................... 3
MSY 215 Masonry Lab ................................................... 3
MSY 245 Anchors and Reinforcement ............................. 3
MSY 251 Concrete Finishing ........................................... 3
MSY 253 Masonry Floors and Steps ................................ 3
MSY 257 Stone .......................................................... 3
Total Credits 27
Medical Administrative Services

Certificate

Medical Coding and Reimbursement Specialist - 5107133029
(Offered at JFC, SKY)

The Medical Coding and Reimbursement Specialist program insures that medical services are correctly identified on insurance claim forms. The individual codes the diagnoses and procedures performed, submits claim forms, researches and corrects insurance claim rejections. This program prepares graduates to file insurance forms for reimbursement and to code properly using the ICD, CPT and the HCPCS codes for patient diagnoses and procedures. Students are provided with an in-depth knowledge of medical terminology, anatomy, and coding procedures.

- AHS 109 Introduction to Body Structure and Functions OR (3)
- BIO 130 Aspects of Human Biology OR ........................................... (3)
- BIO 135 Basic Anatomy and Physiology with Laboratory OR .......... (4)
- BIO 137 Human Anatomy and Physiology I AND .......................... (4)
- BIO 139 Human Anatomy and Physiology II ................................ (4)
- CLA 131 Medical Terminology from Greek and Latin OR .............. (3)
- MIT 103 Medical Office Terminology .......................................... (3)
- MIT 204 Medical Coding AND ....................................................... (3)
- MBS 100 Introduction to the Health Care Field OR ....................... (2)
- HIT 100 Introduction to Healthcare Delivery Systems .................. (2)
- MBS 110 Medical Insurance and Claims Processing ..................... (6)
- MBS 120 Coding for Reimbursement OR ...................................... (8)
- MIT 205 Advanced Medical Coding .............................................. (3)
- MBS 199 Internship ....................................................................... 0-8

Total Credits 23-38

Medical Assisting

A medical assistant is an integral member of the health care delivery team, qualified by education and experience to work in the administrative office, the examining room and the physician’s laboratory. Individuals in this unique position will be involved in many of the following skills:

- General: project a professional manner and image, adhere to legal and ethical principles, use medical terminology effectively, and use effective and correct verbal and written communication.
- Administrative: schedule, coordinate and monitor appointments, perform telephone and written communications, arrange hospital admissions, manage medical records, process insurance claim forms, manage office financial records, and maintain inventory.
- Clinical: prepare patient for examination procedures and treatment, record medical histories, take vital signs, chart patient information, administer medications and injections, provide patient instruction and education, perform venipunctures, collect and prepare other specimens, perform electrocardiograms (ECG), sterilize instruments, and perform basic laboratory tests.

With additional education, the medical assisting graduate may perform limited radiography.

The Medical Assistant is a vital liaison between the doctor and patient and plays an important role in diagnosis and treatment. The many different roles assumed in this profession assure a fast moving and challenging career.

Progression in the Medical Assistant program is contingent upon achievement of a grade of “C” or above in each required course and maintenance of a 2.0 cumulative grade-point average or above (on a 4.0 scale).

Clinical orientation and externship are “non-paid work assignments.” CPR requirements must be successfully completed prior to enrolling in the first clinical externship and must be kept current throughout the program.

Transportation to the physician’s offices/community agencies is the responsibility of each student.

According to the Commission on Accreditation of Allied Health Education Programs (CAAHEP), all accredited medical assisting program related courses must be taught by approved faculty and meet the requirements according to CAAHEP standards and guidelines.

The Medical Assisting programs at the colleges listed below are accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) on the recommendation of the Medical Assisting Education Review Board (MAERB).

Commission on Accreditation of Allied Health Education Programs
25400 US Highway 19 North, Suite 158
Clearwater, FL 33756,
727/210-2350
www.caahep.org

Bluegrass CTC (AAS and Diploma), Henderson CC (AAS), Jefferson CTC (Diploma), and Maysville CTC - Maysville & Rowan Campuses (Diploma).

Associate in Applied Science

Medical Assisting - 5108017029
(Offered at BLC, GTW, HEC, HPC, JFC, OWC)

Required General Education:

- MAT 105 Mathematics for Business OR ........................................... 3
- MAT 110 Applied Mathematics OR ................................................. (3)
- 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

Subtotal 16-20
### Additional Suggested General Education Courses (Not Required)

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<td>COM 181</td>
<td>Basic Public Speaking OR</td>
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<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
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### Support Classes

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<td>3</td>
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<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek and Latin OR</td>
<td>(3)</td>
</tr>
<tr>
<td>MIT 103</td>
<td>Medical Office Terminology</td>
<td>(3)</td>
</tr>
<tr>
<td>CPR 100</td>
<td>CPR for Health Care Professionals OR</td>
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<tr>
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- **NOTE:** Credit for CPR 100 may be granted with proof of CPR certification for Health Care Professionals.

### Core Courses

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<td>MAI 120</td>
<td>Medical Assisting Laboratory Techniques I</td>
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<td>MAI 140</td>
<td>Medical Assisting Clinical Procedures I</td>
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<tr>
<td>MAI 150</td>
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<td>MIT 217</td>
<td>Medical Office Procedures</td>
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<td>MIT 170</td>
<td>Dosage Calculations</td>
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<td>MAI 220</td>
<td>Medical Assisting Laboratory Techniques II</td>
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<td>Medical Insurance OR</td>
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<td>Introduction to Medical Insurance</td>
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<td>MAI 240</td>
<td>Medical Assisting Clinical Procedures II</td>
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<td>MAI 250</td>
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<td>Medical Assisting Practicum</td>
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<td>OST 100</td>
<td>Keyboarding</td>
<td>(1)</td>
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<tr>
<td>MAI 260</td>
<td>Medical Transcription</td>
<td>(3)</td>
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<tr>
<td>MAI 299</td>
<td>Selected Topics: Medical Assisting; (Topic)</td>
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<tr>
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### Diploma

**Medical Assisting - 5108014020**

(Offered at BLC, HEC, JFC, MYC, OWC, SEC, SMC)

### General Education:

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<td>Human Anatomy &amp; Physiology I AND</td>
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</tr>
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<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
<td>(4)</td>
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<tr>
<td>ENG 101</td>
<td>Writing I OR</td>
<td>3</td>
</tr>
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### Support Classes

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<td>Medical Terminology OR</td>
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</tr>
<tr>
<td>AHS 120</td>
<td>Medical Terminology OR</td>
<td>(1)</td>
</tr>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek and Latin OR</td>
<td>(3)</td>
</tr>
<tr>
<td>MIT 103</td>
<td>Medical Office Terminology</td>
<td>(3)</td>
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<tr>
<td>CPR 100</td>
<td>CPR for Health Care Professionals OR</td>
<td>1</td>
</tr>
<tr>
<td>KHP 190</td>
<td>First Aid and Emergency Care</td>
<td>(2)</td>
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<tr>
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### Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>MAI 105</td>
<td>Introduction to Medical Assisting</td>
<td>3</td>
</tr>
<tr>
<td>MAI 120</td>
<td>Medical Assisting Laboratory Techniques I</td>
<td>3</td>
</tr>
<tr>
<td>MAI 140</td>
<td>Medical Assisting Clinical Procedures I</td>
<td>4</td>
</tr>
<tr>
<td>MAI 150</td>
<td>Medical Assisting Administrative Procedures I OR</td>
<td>3</td>
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<tr>
<td>MIT 217</td>
<td>Medical Office Procedures</td>
<td>(3)</td>
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<tr>
<td>MIT 170</td>
<td>Dosage Calculations</td>
<td>2</td>
</tr>
<tr>
<td>MAI 220</td>
<td>Medical Assisting Laboratory Techniques II</td>
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</tr>
<tr>
<td>MAI 230</td>
<td>Medical Insurance OR</td>
<td>3</td>
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<tr>
<td>MIT 104</td>
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<td>MAI 250</td>
<td>Medical Assisting Administrative Procedures II OR</td>
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<td>MAI 270</td>
<td>Pharmacology for the Medical Assistant</td>
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<tr>
<td>MAI 289</td>
<td>Medical Assisting Assessment Preparation</td>
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<td>MAI 281</td>
<td>Medical Assisting Practicum</td>
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<td>MAI 260</td>
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<td>MAI 299</td>
<td>Selected Topics: Medical Assisting; (Topic)</td>
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### Certificates

#### Medical Office Insurance Billing and Coding - 5108013049

(Offered at BLC, HEC, JFC, MYC, OWC, SEC, SMC)

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<tbody>
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<td>3</td>
</tr>
<tr>
<td>AHS 120</td>
<td>Medical Terminology OR</td>
<td>(1)</td>
</tr>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek and Latin OR</td>
<td>(3)</td>
</tr>
<tr>
<td>MIT 103</td>
<td>Medical Office Terminology</td>
<td>(3)</td>
</tr>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory OR</td>
<td>4</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I AND</td>
<td>(4)</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
<td>(4)</td>
</tr>
<tr>
<td>MAI 150</td>
<td>Medical Assisting Administrative Procedures I OR</td>
<td>3</td>
</tr>
<tr>
<td>MIT 217</td>
<td>Medical Office Procedures</td>
<td>(3)</td>
</tr>
<tr>
<td>MAI 230</td>
<td>Medical Insurance OR</td>
<td>3</td>
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<tr>
<td>MIT 104</td>
<td>Introduction to Medical Insurance</td>
<td>(3)</td>
</tr>
<tr>
<td>MAI 250</td>
<td>Medical Assisting Administrative Procedures II OR</td>
<td>3</td>
</tr>
<tr>
<td>MIT 227</td>
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<td>(3)</td>
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<td>MAI 281</td>
<td>Medical Assisting Practicum</td>
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<td>Digital Literacy</td>
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<td><strong>Total Credits</strong></td>
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#### Medical Office Administrative Assistant - 5108013069

(Offered at BLC, HEC, JFC, MYC, OWC, SEC, SMC)

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<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>AHS 115</td>
<td>Medical Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>AHS 120</td>
<td>Medical Terminology OR</td>
<td>(1)</td>
</tr>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek and Latin OR</td>
<td>(3)</td>
</tr>
<tr>
<td>MIT 103</td>
<td>Medical Office Terminology</td>
<td>(3)</td>
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<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory OR</td>
<td>4</td>
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<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I AND</td>
<td>(4)</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
<td>(4)</td>
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<td>MAI 150</td>
<td>Medical Assisting Administrative Procedures I OR</td>
<td>3</td>
</tr>
<tr>
<td>MIT 217</td>
<td>Medical Office Procedures</td>
<td>(3)</td>
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<tr>
<td>MAI 250</td>
<td>Medical Assisting Administrative Procedures II OR</td>
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</tr>
<tr>
<td>MIT 227</td>
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<td>(3)</td>
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<tr>
<td>MAI 281</td>
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<td>1</td>
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<tr>
<td>Digital Literacy</td>
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<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>18-24</strong></td>
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</table>
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 immunochemistry, clinical chemistry, hematology, microbiology, serology, hematology, microbiology, 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.
Pathway II-511004704
(Offered at JFC, MDC, MYC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>PHB 151 Phlebotomy</td>
<td>1</td>
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<tr>
<td>PHB 152 Phlebotomy Clinical Experience</td>
<td>3</td>
</tr>
<tr>
<td>MT 207 Introduction to Clinical Lab</td>
<td>2</td>
</tr>
<tr>
<td>MT 209 Clinical Diagnostic Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>MLT 247 Introduction to Clinical Chem</td>
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<tr>
<td>MLT 279 Practicum II</td>
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<td>Total Credit Hours – Pathway II</td>
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Diploma

Certified Medical Laboratory Assistant - 5110044029
(Offered at MDC)

General Education Courses:

**Course from Area I:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>ENG 101 Writing I</td>
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</table>

**Course from Area II:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>MAT 110 Applied Mathematics OR</td>
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<tr>
<td>MAT 207 Introduction to Clinical Dm</td>
<td>2</td>
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<tr>
<td>PHB 151 Phlebotomy</td>
<td>1</td>
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<tr>
<td>PHB 152 Phlebotomy Clinical Experience</td>
<td>3</td>
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<td>MLT 101 Introduction to Clinical Lab</td>
<td>3</td>
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<tr>
<td>MLT 150 Medical Assisting Admin Procedures I</td>
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Support Courses:

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<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>BIO 135 Basic Anatomy &amp; Physiology</td>
<td>4</td>
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<tr>
<td>BIO 225 Medical Microbiology OR</td>
<td>4</td>
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<td>MLT 207 Introduction to Clinical Lab</td>
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<tr>
<td>Subtotal</td>
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</table>

*Note: MAT 150 is required for Engineering Operations Track and Supervisors Track.

Technical Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>MLT 101 Introduction to Clinical Lab</td>
<td>3</td>
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<tr>
<td>PHB 151 Phlebotomy</td>
<td>1</td>
</tr>
<tr>
<td>PHB 152 Phlebotomy Clinical Experience</td>
<td>3</td>
</tr>
<tr>
<td>MT 207 Introduction to Clinical Lab</td>
<td>2</td>
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<tr>
<td>MT 279 Practicum II</td>
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<td>Subtotal</td>
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<tr>
<td>Total</td>
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Certificates

Physician’s Office Laboratory - 5110043029
(Offered at HEC, HZC, JFC, MDC, SEC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHB 151 Phlebotomy</td>
<td>1</td>
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<tr>
<td>PHB 152 Phlebotomy Clinical Experience</td>
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<tr>
<td>MLT 101 Introduction to Clinical Lab</td>
<td>3</td>
</tr>
<tr>
<td>PHB 152 Phlebotomy Clinical Experience</td>
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</tr>
<tr>
<td>MLT 112 Urinalysis</td>
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<td>MLT 115 Serology</td>
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<td><strong>8-9</strong></td>
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Phlebotomist - 5110043019
(Offered at HZC, JFC, MDC, MYC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>PHB 151 Phlebotomy</td>
<td>6</td>
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<tr>
<td>PHB 155 Phlebotomy Clinical Experience</td>
<td>2-3</td>
</tr>
<tr>
<td>Subtotal</td>
<td><strong>8-9</strong></td>
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Phlebotomy for the Health Care Worker - 5110043039
(Offered at HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>PHB 151 Phlebotomy</td>
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<tr>
<td>PHB 152 Phlebotomy Clinical Experience</td>
<td>1</td>
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<tr>
<td>MLT 101 Introduction to Clinical Lab</td>
<td>3</td>
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<tr>
<td>PHB 170 Applied Phlebotomy AND</td>
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<td>PHB 152 Phlebotomy Clinical Experience</td>
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<td>Subtotal</td>
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Advanced Phlebotomy Technician - 5110043049
(Offered at HZC, SEC.)

<table>
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<th>Course</th>
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<tbody>
<tr>
<td>PHB 151 Phlebotomy</td>
<td>1</td>
</tr>
<tr>
<td>PHB 152 Phlebotomy Clinical Experience</td>
<td>1</td>
</tr>
<tr>
<td>PHB 153 Advanced Topics in Phlebotomy AND</td>
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<tr>
<td>PHB 155 Phlebotomy Clinical Experience</td>
<td>3</td>
</tr>
<tr>
<td>PHB 155 Phlebotomy Clinical Experience</td>
<td>1</td>
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<tr>
<td>Subtotal</td>
<td><strong>6-8</strong></td>
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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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
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<td>GLY 101 Physical Geology AND</td>
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<td>GLY 111 Laboratory for Physical Geology</td>
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Technical Core:

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<tr>
<td>MNG 102 Introduction to Mine Engineering</td>
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<td>MNG 160 Elements of Underground Mining</td>
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<tr>
<td>MNG 170 Elements of Surface Mining</td>
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<td>MNG 150 Mining Laws</td>
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*Note: MAT 150 is required for Engineering Operations Track and Supervisors Track.
**Operators Track – 150901702**

*(Offered at BSC, MDC)*

<table>
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<th>Course</th>
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<td>IMT 110</td>
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<td>IMT 111</td>
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<td>ELT 244</td>
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<td>IMT 150</td>
<td>3</td>
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<tr>
<td>IMT 151</td>
<td>2</td>
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<tr>
<td>ELT 250</td>
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**Technical Electives***: 2-3

Subtotal 26

Total Credits 60-66

---

**Electricians Track - 150901703**

*(Offered at BSC, MDC)*

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<td>MNG 125</td>
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<td>IMT 110</td>
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<td>IMT 111</td>
<td>2</td>
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<tr>
<td>ELT 244</td>
<td>4</td>
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<tr>
<td>Equivalent course</td>
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<tr>
<td>IMT 150</td>
<td>3</td>
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<tr>
<td>IMT 151</td>
<td>2</td>
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<td>ELT 250</td>
<td>4</td>
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**Technical Electives***: 2

Subtotal 20

Total Credits 62

---

**Supervisors Track - 150901704**

*(Offered at BSC, MDC)*

<table>
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<tbody>
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<td>ACT 101</td>
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</tr>
<tr>
<td>MNG 286</td>
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</tr>
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<td>BAS 288</td>
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Subtotal 20

Total Credits 62

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**Mechanics Track - 150901705**

*(Offered at BSC, MDC)*

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<td>FPX 101</td>
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<td>ELT 122</td>
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<td>IMT 100</td>
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</tr>
<tr>
<td>IMT 151</td>
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Subtotal 20-23

Total Credits 62-65

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**Engineering Operations Track - 150901701**

*(Offered at BSC, MDC)*

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<tbody>
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<td>MA 112</td>
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<td>MAT 155</td>
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<td>MNG 286</td>
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Subtotal 19-21

Total Credits 61-63

*Technical Electives:

Any AIT, EET, ELT, IMT, CIT, ISM, ENV, SMT, CAD, ICT, MNG, MFG or any other course as approved by the program coordinator.

---

**Diploma**

**Underground Mining Repair Technology - 1509014019**

**General Education:**

<table>
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<th>Area</th>
<th>Courses</th>
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<tr>
<td>2</td>
<td>Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning</td>
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Subtotal 6

**Technical Courses:**

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<td>BAS 120</td>
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<td>IMT 100</td>
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<td>IMT 101</td>
<td>2</td>
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<td>ELT 250</td>
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<td>ELT 265</td>
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<td>IMT 151</td>
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<td>MNG 190</td>
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<td>KHP 190</td>
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<td>MNG 274</td>
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</tbody>
</table>

Subtotal 44-54

Total Credits 50-60

*Technical Electives:

Any AIT, EET, ELT, IMT, CIT, ISM, ENV, SMT, CAD, ICT, MNG, MFG or any other course as approved by the program coordinator.

---

**Certificates**

**Underground Operator 1509013129**

*(Offered at BSC, MDC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MNG 160</td>
<td>3</td>
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<tr>
<td>MNG 161</td>
<td>3</td>
</tr>
<tr>
<td>BAS 120</td>
<td>(3)</td>
</tr>
<tr>
<td>WPP 200</td>
<td>(3)</td>
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</tbody>
</table>

Total Credits 7-9
Underground Mechanic/Electrician - 1509013069
(Offered at MDC)

ELT 122 Mechanical Power Transmission Systems ......................... 3
MNG 123 Mining Electricity I .................................................... 4
MNG 125 Mining Electricity I Lab .............................................. 1
MNG 150 Mining Laws ........................................................... 3
IMT 100 Welding for Maintenance ............................................ 3
IMT 101 Welding for Maintenance Lab ....................................... 2
ELT 244 Electrical Machinery and Controls OR ................................ 4
IMT 110 Industrial Maintenance Electrical Principles AND ............... (3)
IMT 111 Industrial Maintenance Electrical Principles Lab ................. (2)
ELT 250 Programmable Logic Controllers ..................................... 4
ELT 265 Applied Fluid Power OR ............................................... 3
FPX 100 Fluid Power AND ....................................................... (3)
FPX 101 Fluid Power Lab ......................................................... (2)
IMT 150 Maintaining Industrial Equipment I ................................ 3
IMT 151 Maintaining Industrial Equipment I Lab ............................. 2

Total Credits 28-35

Surface Technician/Greaser - 1509013119
(Offered at BSC)

PMX 100 Precision Measurement .................................................. 3
DIT 101 Preventive Maintenance Lab ............................................ 2
ELT 122 Mechanical Power Transmission Systems ......................... 3

Total Credits 8

Mining Technician Assistant I - 1509013019
(Offered at BSC)

PMX 100 Precision Measurement .................................................. 3
DIT 101 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)

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)

Digital Literacy ................................................................. 0-3
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 MDC)

Digital Literacy ................................................................. 0-3
Mining Electricity I ............................................................ 4
MNG 123 Mining Electricity I .................................................... 4
MNG 150 Mining Laws ........................................................... 3
MNG 286 Roof Control and Ventilation ....................................... 3
KHP 190 Mine Emergency Technician OR .................................... 3
IMT 100 Welding for Maintenance ............................................ 3
IMT 101 Welding for Maintenance Lab ........................................ 2

Total Credits 18-22

Surface Operator - 1509013139
(Offered at BSC, MDC)

MNG 170 Elements of Surface Mining ......................................... 2
MNG 171 Elements of Surface Mining Lab ..................................... 1-3
EFM 100 Personal Financial Management OR ................................. 3
BAS 120 Personal Finance OR .................................................... (3)
WPP 200 Workplace Principles .................................................. (3)
HEO 125 Special Problems I OR .................................................. 3
Technical Elective ................................................................. (3)

Total Credits 16-21

Surface Field Mechanic - 1509013109
(Offered at BSC, MDC)

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 Mining Safety .......................................................... 3
BAS 160 Introduction to Business ................................................ 3

Total Credits 13-18

Surface Supervisor - 1509013099
(Offered at BSC, MDC)

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 Mining Safety .......................................................... 3
BAS 160 Introduction to Business ................................................ 3

Total Credits 13-18

Underground Supervisor - 1509013079
(Offered at BSC, MDC)

MNG 150 Mining Laws ........................................................... 3
MNG 274 Mine Safety ............................................................. 3
MNG 190 Mine Emergency Technician OR .................................... 3
KHP 190 First Aid & Emergency Care ......................................... (3)
BAS 160 Introduction to Business ................................................ 3
MNG 286 Roof Control and Ventilation ....................................... 3
Digital Literacy ................................................................. 0-3
Blueprint Reading course ...................................................... 2-3

Total Credits 16-21

Total Credits 8-10

Surface Technician/Greaser - 1509013119
(Offered at BSC)

PMX 100 Precision Measurement .................................................. 3
DIT 101 Preventive Maintenance Lab ............................................ 2
ELT 122 Mechanical Power Transmission Systems ......................... 3

Total Credits 8

Mining Technician Assistant I - 1509013019
(Offered at BSC)

PMX 100 Precision Measurement .................................................. 3
DIT 101 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)

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)

Digital Literacy ................................................................. 0-3
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 MDC)

Digital Literacy ................................................................. 0-3
Mining Electricity I ............................................................ 4
MNG 123 Mining Electricity I .................................................... 4
MNG 150 Mining Laws ........................................................... 3
MNG 286 Roof Control and Ventilation ....................................... 3
KHP 190 Mine Emergency Technician OR .................................... 3
IMT 100 Welding for Maintenance ............................................ 3
IMT 101 Welding for Maintenance Lab ........................................ 2

Total Credits 18-22
Multi-Skilled Systems Technician

Introduces the systems approach to the operation of electrical components and the relationship of voltage, current, resistance, and power in industrial systems. Provides an overview of alternating and direct current fundamentals. Introduces the systems approach to the operation of mechanical components and the relationship of their application in industrial systems. Provides an overview of rotating machinery fundamentals. Introduces the systems approach to the operation of hydraulic/pneumatic components and the relationship of their application in industrial systems. Provides an overview of digital fundamentals.

Certificate

Multi-Skilled Technician - 4703033229
(Offered at JFC)

MST 150 Multi-Skilled Systems Technician ......................................................................... 9
Total Credits ....................................................................................................................... 9

Natural Gas Technology

Construction and Maintenance Technician

This program prepares students for performing job tasks in five functional areas of pipeline construction and maintenance; work related safety, installing and inspecting gas distribution piping, maintenance on gas pipelines, placing pipelines into service and installing and monitoring cathodic protection systems. Classroom instruction and documented related skill performance prepares students to perform job related tasks at the technician level. Persons completing the program are “operator qualified” on related covered tasks according to 49CFR, Part 192, Subpart N.

Gas Service Technician

This program prepares students for job related tasks in six functional areas of natural gas service; work related safety, installing and maintaining customer services lines and meter and regulator sets, installing gas operated equipment, installing and inspecting gas distribution piping and monitoring cathodic protection systems. Classroom instruction and documented related skill performance prepares students to perform job related tasks at the technician level. Persons completing the program are “operator qualified” on related covered tasks according to 49CFR, Part 192, Subpart N.

Leakage and Corrosion Control Technician

This program prepares students for performing job tasks in four functional areas of natural gas leakage and corrosion control; work related safety, investigating and controlling gas leaks, installing cathodic protection systems, and monitoring cathodic protection systems. Classroom instruction and documented related skill performance prepares students to perform job related tasks at the technician level. Persons completing the program are “operator qualified” on related covered tasks according to 49CFR, Part 192, Subpart N.

Measurement and Regulation Technician

This program prepares students for performing job tasks in five functional areas of natural gas measurement and regulation; work related safety, basic gas laws, maintaining gas metering systems, maintaining gas regulation systems, and maintaining recording instruments. Classroom instruction and documented related skill performance prepares students to perform job related tasks at the technician level.
Nuclear Medicine and Molecular Imaging Technology

The Nuclear Medicine and Molecular Imaging Technology (NMMIT) program prepares the individual to work in the field of Nuclear Medicine and Molecular Imaging. Nuclear Medicine and Molecular Imaging is the medical specialty that utilizes the nuclear properties of radioactive and stable nuclides to make diagnostic evaluation of the anatomic or physiologic conditions of the body and to provide therapy with unsealed radioactive materials. The skills of the nuclear medicine technologist complement those of the nuclear medicine physician and other professionals in the field. Nuclear medicine technologists have responsibilities in the following areas: (a) patient care and monitoring, (b) technical skills related to radiation safety, radiopharmacy, clinical instrumentation, diagnostic and therapeutic procedures (including hybrid imaging and emerging technologies), quality control, and computers, and (c) administrative functions related to supplies and equipment, documentation of operations related to disposition of radioactive materials, quality control data, and patient records.

The NMMIT program is a selective admission program. A student must earn a grade of C or better in the prerequisite and concurrent mathematics and science courses to be admitted to and to remain enrolled in the program. Also, a student must earn a grade of C or better in each of the NMMIT courses to be retained in the program. After graduation from the program, the individual is eligible to write either the Nuclear Medicine Technology Certification Board (NMTCB) examination 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)

<table>
<thead>
<tr>
<th>General Education:</th>
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<tbody>
<tr>
<td>ENG 101 Writing I</td>
<td>3</td>
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<tr>
<td>ENG 102 Writing II</td>
<td>3</td>
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<tr>
<td>MAT 150 College Algebra OR</td>
<td>3</td>
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<tr>
<td>MA 109 College Algebra</td>
<td>(3)</td>
</tr>
<tr>
<td>CHE 140 Introductory General Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHE 150 Introduction to Organic and Biological Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHE 155 Introduction to Organic and Biological Chemistry Lab</td>
<td>1</td>
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<tr>
<td>BIO 137 Human Anatomy &amp; Physiology I</td>
<td>4</td>
</tr>
<tr>
<td>BIO 139 Human Anatomy &amp; Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>PHY 171 Applied Physics OR</td>
<td>4</td>
</tr>
<tr>
<td>PHY 172 Physics for Health Sciences</td>
<td>(2)</td>
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<tr>
<td>Social/Behavioral Sciences</td>
<td>3</td>
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<tr>
<td>Heritage/Humanities</td>
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<td>Oral Communications Course</td>
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<td><strong>Subtotal</strong></td>
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<th>Technical Courses:</th>
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<tbody>
<tr>
<td>NMI 140 Clinical Procedures I</td>
<td>2</td>
</tr>
<tr>
<td>NMI 141 Physics and Instrumentation I</td>
<td>2</td>
</tr>
<tr>
<td>NMI 142 Radiation Biology/Protection</td>
<td>1</td>
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<tr>
<td>NMI 150 Clinic I</td>
<td>2</td>
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<tr>
<td>NMI 160 Clinical Procedures II</td>
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</table>

NMI 161 Physics and Instrumentation II ................................................. 2
NMI 170 Clinic II ............................................................... 2
NMI 230 Radiopharmacy ............................................................... 2
NMI 220 Clinic III ............................................................... 2
NMI 240 Clinical Procedures III ..................................................... 4
NMI 260 Clinic IV ................................................................ 4
NMI 250 Clinical Procedures IV ..................................................... 4
NMI 270 Clinic V ................................................................. 4
IMG 230 Sectional Anatomy for Advanced Imaging ................................ 3

**Subtotal** 36

**Total Credits** 71-73

Nursing

The Associate Degree Nursing program prepares graduates to use their skill and knowledge to fulfill the role of the nurse: enhance human flourishing, demonstrate sound nursing judgment, continually develop professional identity, and possess a spirit of inquiry to improve the quality of patient care. Encompassed within these roles are the core components of context and environment, knowledge and science, personal/professional development, quality and safety, relationship-centered care, and teamwork. These core components are introduced, developed and built upon through the curriculum. Graduates are eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN). 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 enrollment in the first nursing course.

*Transportation to the community agencies is the responsibility of each student.

Note: The Kentucky Board of Nursing may deny a nursing graduate admission to the NCLEX-RN Exam if an individual has been convicted of a misdemeanor or felony which involves acts that bear directly on the qualifications of the graduate to practice nursing.

The following Associate Degree Nursing programs are accredited by the Accreditation Commission for Education in Nursing 3343 Peachtree Rd. NE, Suite 850, Atlanta, GA 30326, www.acenursing.org, telephone: (404) 975-5000: Ashland Community and Technical College, Bluegrass Community and Technical College, Elizabethtown Community and Technical College, Henderson Community College, Hopkinsville Community College, Jefferson Community and Technical College, Madisonville Community College, Somerset Community College, Southeast Kentucky Community and Technical College, West Kentucky Community and Technical College.
### Associate in Applied Science

**Nursing - 5138017009**  
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MYC, OWC, SEC, SMC, WKC)

**General Education for 2017-2018 Academic Year:**

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I</td>
<td>4</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>BIO 225</td>
<td>Medical Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra</td>
<td>3</td>
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<tr>
<td>PSY 110</td>
<td>General Psychology</td>
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<tr>
<td>PSY 223</td>
<td>Developmental Psychology</td>
<td>3</td>
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<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology II</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>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>
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<tr>
<td>PSY 223</td>
<td>Developmental Psychology</td>
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**Subtotal** 33

**General Education for 2018-2019 Academic Year:**

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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I</td>
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<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
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<td>BIO 225</td>
<td>Medical Microbiology</td>
<td>4</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra</td>
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<tr>
<td>PSY 110</td>
<td>General Psychology</td>
<td>3</td>
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<tr>
<td>PSY 223</td>
<td>Developmental Psychology</td>
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**Subtotal** 24

**Technical Courses:**

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<tr>
<td>NSG 101</td>
<td>Nursing Practice I</td>
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<tr>
<td>NSG 210</td>
<td>***Medical/Surgical Nursing I OR</td>
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</tr>
<tr>
<td>NSG 197</td>
<td>**LPN – ADN Bridge OR</td>
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<tr>
<td>NSG 199</td>
<td>**Accelerated LPN – ADN Bridge Course</td>
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<tr>
<td>NSG 211</td>
<td>Maternal Newborn Nursing</td>
<td>3</td>
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<tr>
<td>NSG 212</td>
<td>Behavioral Health Nursing</td>
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<tr>
<td>NSG 213</td>
<td>Pediatric Nursing</td>
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<tr>
<td>NSG 215</td>
<td>Pharmacology I</td>
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<td>NSG 220</td>
<td>Medical/Surgical Nursing II</td>
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<tr>
<td>NSG 225</td>
<td>Pharmacology II</td>
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<tr>
<td>NSG 230</td>
<td>Medical/Surgical Nursing III</td>
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**Subtotal** 38

**Total Credits** 71

**Additional Requirements:**

- 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 Modular Pathway - 513801704**  
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, MYC, OWC, WKC)

**Technical Courses:**

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<td>MNA 100</td>
<td>Medicaid Nurse Aide AND</td>
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<tr>
<td>NAA 115</td>
<td>Nursing Assistant Skills II OR</td>
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<tr>
<td>MNA 100</td>
<td>Medicaid Nurse Aide AND</td>
<td>3</td>
</tr>
<tr>
<td>NAA 115</td>
<td>Nursing Assistant Skills II OR</td>
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<tr>
<td>HST 121</td>
<td>Pharmacology</td>
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<tr>
<td>ENG 101</td>
<td>Writing I OR</td>
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<tr>
<td>TEC 200</td>
<td>Technical Communications</td>
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</tbody>
</table>

**Total Credits** 16-20

**Nursing Standard Pathway - 513801705**  
(Offered at JFC)

**Technical Courses:**

<table>
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<tr>
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<th>Course Title</th>
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<td>NSG 106</td>
<td>Nursing One</td>
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<td>NSG 206</td>
<td>***Nursing Two OR</td>
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<tr>
<td>NSG 196</td>
<td>**LPN – ADN Bridge (Family Nursing)</td>
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<td>NSG 236</td>
<td>(Family Nursing) Nursing Three</td>
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<td>NSG 246</td>
<td>Nursing Four</td>
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<tr>
<td>NSG 216</td>
<td>Nursing Pharmacology IAND</td>
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</table>

**Total Credits** 62

**Additional Requirements:**

- 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 Assistant – Advanced**

Provides knowledge and skills for nurse aides to assume the role and responsibility required in a variety of health care settings.

**Certificate**

**Advanced Nursing Assistant - 5139023019**  
(Offered at ASC, BLC, ELC, HEC, HPC, OWC, WKC)

Available Completely Online

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>NAA 125</td>
<td>Advanced Nursing Assistant OR</td>
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</tr>
<tr>
<td>NAA 100</td>
<td>Nursing Assistant Skills I AND</td>
<td>3</td>
</tr>
<tr>
<td>NAA 115</td>
<td>Nursing Assistant Skills II OR</td>
<td>3</td>
</tr>
<tr>
<td>MNA 100</td>
<td>Medicaid Nurse Aide AND</td>
<td>3</td>
</tr>
<tr>
<td>NAA 115</td>
<td>Nursing Assistant Skills II OR</td>
<td>3</td>
</tr>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory OR</td>
<td>4</td>
</tr>
<tr>
<td>AHS 109</td>
<td>Introduction to Body Structure and Function OR</td>
<td>4</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology IAND</td>
<td>4</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
<td>5</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication OR</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I OR</td>
<td>3</td>
</tr>
<tr>
<td>TEC 200</td>
<td>Technical Communications</td>
<td>3</td>
</tr>
</tbody>
</table>

**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, 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: The Associate in Applied Science option prepares graduates to provide and manage patient care and to become members within the discipline of nursing. The Associate Degree Nursing option prepares graduates to provide and manage patient care and to become members within the discipline of practical nursing as a career can complete the components in three semesters and are selected, developed, and leveled from simple to complex. Classroom instruction in theory and basic nursing skills is provided in various delivery methods. Under the guidance of program faculty, students gain valuable experience in the care of patients across the lifespan in a variety of healthcare settings and/or community agencies including hospitals, long-term care facilities, clinics and child care centers.

The Integrated Nursing Program provides a seamless educational pathway in nursing which allows students to choose multiple career options. The Integrated Nursing Program is designed to deliver nursing education to a cohort of students with the opportunity to complete the Practical Nursing (PN) or Associate Degree Nursing level. The curriculum is structured around a clearly defined organizing framework and provides the foundation for a competency-based approach to nursing education through the utilization of interactive and student-focused learning strategies. Content and performance-based outcomes for the nursing courses are selected, developed, and leveled from simple to complex. Classroom instruction in theory and basic nursing skills is provided in various delivery methods. Under the guidance of program faculty, students gain valuable experience in the care of patients across the lifespan in a variety of healthcare settings and/or community agencies including hospitals, long-term care facilities, clinics and child care centers.

After three semesters the student has the option to exit as a PN by enrolling in the PN exit course. This option prepares graduates to function within the legal scope of practice under the supervision of a registered nurse or physician. The practical nursing level focuses on the maintenance of health and prevention of illness, the observation and nursing care of individuals experiencing changes in their health processes, and the evaluation of health practices of patients. Students who choose practical nursing as a career can complete the components in three semesters and are eligible to apply for licensure as a practical nurse. Graduates are eligible to take the National Council Licensure Examination for Practical Nurses (NCLEX PN).

The Associate Degree Nursing option prepares graduates to provide and manage patient care and to become members within the discipline of nursing. The associate nursing level focuses on the application of a specialized body of knowledge and skills obtained from social and biological
sciences in providing evidenced-based, clinically competent care to individuals across the life span. Students choosing the Associate in Applied Science degree in Nursing can complete the components in four semesters and are eligible to apply for licensure as a registered nurse. Graduates are eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN).

Acceptance into the Integrated Nursing Program is based upon a selective admissions process. In order to be considered for admission, applicants must comply with college and program admission requirements. Active status as a Kentucky State Registered Nurse Aide is required prior to enrolling in the first integrated nursing course. Licensed practical nurses may receive credit for the first semester of nursing based upon specific college offerings, work experience, and active Kentucky or compact state licensure status.

Progression within the Integrated Nursing Program is contingent upon achievement of a grade of “C” or better in all program course requirements and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

If more than three years have elapsed since initial enrollment in any nursing program, an applicant must repeat all nursing courses.

A nursing graduate with a misdemeanor or felony conviction may be denied permission to access the NCLEX by the Kentucky Board of Nursing.

The Madisonville Community College Associate Degree Nursing program is currently accredited by:


Note: Hours Exception (69-72 for the A.A.S.) approved by the KCTCS Board of Regents in June 2010.

## Associate in Applied Science

### General Education

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<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>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
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</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra</td>
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<th>Credits</th>
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<tbody>
<tr>
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<td>Nursing Assistant Skills I or equivalent</td>
<td>0-3</td>
</tr>
<tr>
<td>CIT 105</td>
<td>Introduction to Computers OR</td>
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<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
<td>3</td>
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<tr>
<td>NIP 103</td>
<td>Introduction of Pharmacology</td>
<td>2</td>
</tr>
<tr>
<td>NIP 116</td>
<td>Fundamentals of Nursing</td>
<td>2</td>
</tr>
<tr>
<td>AHS 100</td>
<td>Human Growth and Development**</td>
<td>11</td>
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<tr>
<td>NIP 129</td>
<td>Medical Surgical Alteration</td>
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</tr>
<tr>
<td>NIP 140</td>
<td>Practical Nursing Role Transition</td>
<td>6</td>
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### Total Credits

61-64

NOTE: CPR requirements must be successfully completed prior to enrolling in the first nursing course and must be kept current throughout the program. The student can receive credit for NAA 100 outside of college. The student must be active on the Kentucky State Nurse Aide Registry at time of admission.

*PSY 223 may be substituted for AHS 100.

---

## Practical Nursing - Diploma

### General Education:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</tr>
</thead>
<tbody>
<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>
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### Technical or Support Courses:

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<th>Credits</th>
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<tbody>
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<td>Introduction to Computers OR</td>
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### Total Credits

44-47

Note: CPR requirements must be successfully completed prior to enrolling in the first nursing course and must be kept current throughout the program. The student can receive credit for NAA 100 outside of college. The student must be active on the Kentucky State Nurse Aide Registry at time of admission.

*BIO 137 and BIO 139 may be substituted for BIO 135.

**PSY 223 may be substituted for AHS 100.

### Certificates

#### Medicaid Nurse Aide – 5139012020

<table>
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<tr>
<th>Course</th>
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Note: Madisonville Community College does not offer NAA 125 or MNA 100.

#### Kentucky Medication Aide – 5139012030

<table>
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Note: After the student completes the first semester of the Integrated Nursing program, the student is eligible to sit for the KMA exam.

#### AHA Advanced Cardiac Life Support – 5139012050

<table>
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<tr>
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### Nursing - Practical Nursing

The Practical Nursing program prepares individuals to practice within the legal scope of practical nursing under the supervision of a registered nurse or physician. Use of the nursing process at the practical nursing level toward the maintenance of health and prevention of illness, the observation and nursing care of persons experiencing changes in their health processes, and the evaluation of health practices of patients are emphasized.

Classroom instruction in theory and basic nursing skills is provided on campus. Under the guidance of program faculty, students gain valuable experience in the care of all ages in a variety of health care settings and/or community agencies - hospitals, long-term care facilities, clinics and...
child care centers. (Transportation to the community agencies is the responsibility of each student.)

Acceptance in the Practical Nursing program is based on a selective admission process.

Progression in the Practical Nursing program is contingent upon achievement of a grade of “C” or better in each course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

CPR requirements must be successfully completed prior to enrolling in the first nursing course and must be kept current throughout the program. Documentation of active status on the Medicaid Nurse Aide Registry or successful completion of an equivalent course within the previous three years is required prior to enrolling in the first nursing course. Documentation of computer literacy as defined by KCTCS is required prior to enrolling in the first nursing course.

Note: The Kentucky Board of Nursing (KBN) may deny a nursing graduate admission to the NCLEX-PN Exam if an individual has been convicted of a misdemeanor or felony that involves acts that bear directly on the qualifications of the graduate to practice nursing.

**Diploma**

**Practical Nurse - 5139014039**

*(Offered at ASC, BLC, BSC, GTW, HPC, HZC, JFC, MYC, SKY, SMC, WKC)*

**Practical Nurse Pathway 1 – Traditional - 513901401**

*(Offered at BLC, GTW, HZC, JFC, SKY, SMC)*

**Academic Curricula**

**General Education:**

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**Area 2 =**

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<td>BIO 137</td>
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<td>BIO 139</td>
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Subtotal 7-11

**Technical Core:**

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Subtotal 38-46

**Total Credits:** 45-58

*Recommended Electives:

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<td>AHS 130</td>
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<tr>
<td>NSG 299</td>
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*Taken by advanced nursing assistant and allied health graduates.

**Practical Nurse – Pathway 2 – Traditional Modified - 513901402**

*(Offered at ASC, BSC, HPC, MYC, WKC)*

**General Education:**

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<td>COM 181</td>
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**Area 2 =**

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<tr>
<td>BIO 137</td>
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<tr>
<td>BIO 139</td>
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Subtotal 7-11

**Technical Core:**

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Subtotal 38-47

**Total Credits:** 45-58

*Recommended Electives:

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</table>

*Taken by advanced nursing assistant and allied health graduates.

**Practical Nurse – Pathway 3 – Modular - 513901403**

**(Offered at ASC, BSC, HPC, MYC, WKC)**

**General Education:**

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**Area 2 =**

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<th>Credits</th>
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<tr>
<td>MAT 110</td>
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<td>PSY 110</td>
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Subtotal 17

**Technical Core:**

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<td>NPN 215</td>
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Subtotal 39

**Total Credits:** 56

189
Certificates

Medicaid Nurse Aide - 5139012020
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

MNA 100 Medicaid Nurse Aide OR .............................................. 3
NAA 100 Advanced 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

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 academic, 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.acoteonline.org

Graduates of the program will be able to sit for the national certification examination for the occupational therapy assistant administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be a Certified Occupational Therapy Assistant (COTA). Most states require licensure in order to practice; however, state licenses are usually based on the results of the NBCOT Certification Examination.

Note: An OTA graduate with a misdemeanor or felony conviction may be denied permission to access the NBCOT certification exam. The student is responsible for contacting NBCOT prior to admission.

Associate in Applied Science

Occupational Therapy Assistant - 5108037009
(Offered at JFC, MDC)

General Education Core:

ENG 101 Writing I ............................................................... 3
PSY 110 General Psychology .................................................. 3
PSY 223 Developmental Psychology ........................................... 3
COM 181 Basic Public Speaking OR ........................................... 3
COM 252 Introduction to Interpersonal Communication ................. (3)
HHS/Heritage/Humanities* .............................................. 3

Total 15

*MCC recommends REL 130 to fulfill the Heritage/Humanities requirement.

Pathway # 1 - 510803701
(Offered at MDC)

Additional General Education (MCC Only):

BIO 137 Human Anatomy and Physiology I ................................. 4
BIO 139 Human Anatomy and Physiology II ............................... 4
MAT 110 Applied Mathematics OR ............................................ 3
MAT 150 College Algebra ......................................................... (3)

Subtotal Credits (MCC Only) 26

Technical Core:

OTA 101 Introduction to Occupational Therapy .............................. 3
OTA 126 Level IA Fieldwork ....................................................... 1
OTA 146 Occupational Therapy in Mental Health ........................... 3
OTA 136 Physical Dysfunction ................................................... 4
OTA 226 Level IB Fieldwork ....................................................... 1
OTA 246 Pediatric Issues in Occupation Therapy ........................... 3
OTA 266 Elder Issues in Occupational Therapy ............................. 2
OTA 206 Community Practice .................................................... 2
OTA 236 Professional Transitions and Management ....................... 2
OTA 267 Level IIA Fieldwork ..................................................... 5
OTA 277 Level IIB Fieldwork ..................................................... 5

Subtotal 31

Additional Technical Courses (MCC only):

OTA 113 Applied Anatomy and Kinesiology ................................. 2
OTA 115 Skills and Interventions I .............................................. 2
OTA 125 Assistive Technology and Documentation ....................... 2
OTA 225 Skills and Interventions II ............................................ 2
OTA 286 Clinical Seminar ......................................................... 2

Total Additional Technical Credits 10

Alternate Pathway #1 for MCC/Total Credits 67
The Paralegal Technology curriculum is designed to prepare a person for entry-level employment as a paralegal in courts, corporations, law firms, and government agencies. Paralegal Technology is a program of study that requires courses in the technical area. In addition, the Associate in Applied Science degree also requires general education courses.

The curriculum is based on standards developed from the National Association of Legal Assistants’ Descriptions of Certified Legal Assistant (CLA) Exam Sections. Additional research data used in the development of publication was collected from a review of related literature.

Industry standards are based on the National Association of Legal Assistants’ Descriptions of Certified Legal Assistant (CLA) Exam Sections. 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.

Progression in the Paralegal Technology program is contingent upon achievement of a grade of “C” or better in each paralegal technical course.

**Associate in Applied Science**

**Paralegal Technology - 2203027019**

(Offered at MDC)

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**Subtotal** | 21 |

**Technical Support Courses:**

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**Subtotal** | 36 |

**Total** | 66 |

*PSY 110 (General Psychology) OR SOC 101 (Introduction to Sociology) recommended.

**CRJ 100 (Introduction to Criminal Justice) OR CRJ 216 (Criminal Law) recommended.

**Certificate**

**Paralegal Technology – 2203023019**

(Offered at MDC)

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<td>CIT 130</td>
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</table>

**Total** | 39 |
Pharmacy Technology

The pharmacy technician performs technical functions under the direction of a Registered Pharmacist; including prescription preparation, inventory, repackaging, and compounding. The essential elements of this program include the history of pharmacy, pharmacy law, medical terminology, drug classification and prescription preparation. Laboratory experience and an externship under the supervision of a licensed pharmacist are required components of the program.

Progression in the Pharmacy Technician program is contingent upon achievement of a grade of “C” or above in each required course and maintenance of a 2.0 cumulative grade-point average or above (on a 4.0 scale).

Diploma

Pharmacy Technician II - 5108054029
(Offered at ASC, BLC, HPC, JFC, SMC)

General Education:

Area 1 =
- COM 181 Basic Public Speaking OR ........................................... 3
- COM 252 Introduction to Interpersonal Communication .................. 3

Area 2 =
- BIO 130 Aspects of Human Biology OR ...................................... 3
- BIO 135 Basic Anatomy and Physiology with Laboratory OR ............. 4
- BIO 137 Human Anatomy & Physiology I AND ............................ 4
- BIO 139 Human Anatomy & Physiology II .................................. 4

Subtotal: 6-11

- CIT 105 Computer/Digital Literacy ............................................. 0-3
- EFM 100 Personal Financial Management OR ................................ 3
- BAS 120 Personal Finance OR .................................................... 3
- WPP 200 Workplace Principles .................................................. 3
- AHS 115 Medical Terminology OR .............................................. 3
- CLA 131 Medical Terminology from Greek and Latin OR ............... 3
- MIT 103 Medical Office Terminology ......................................... 3
- PHA 110 Pharmacy Procedures and Skills .................................... 6
- PHA 145 Pharmaceutical Calculations ......................................... 3
- PHA 136 Pharmacology ............................................................... 3
- PHA 200 Admixtures for IV Therapy ........................................... 3
- PHA 205 Admixture Preparations ............................................... 1
- PHA 210 Drug Classifications ..................................................... 6
- PHA 250 Pharmacy Experience ................................................... 2-8

Subtotal: 18-21

Total Credits: 36-50

Retail Pharmacy Technician - 5108053039
(Offered at ASC, HPC, JFC, SMC)

- COM 181 Basic Public Speaking OR ............................................. 3
- COM 252 Introduction to Interpersonal Communication OR ............. (3)
- COM 101 Introduction to Communications* ................................... (3)
- AHS 115 Medical Terminology OR ............................................. 3
- CLA 131 Medical Terminology from Greek and Latin OR ............... (3)
- MIT 103 Medical Office Terminology ......................................... 3
- PHA 110 Pharmacy Procedures and Skills .................................... 6
- PHA 145 Pharmaceutical Calculations ......................................... 3
- PHA 136 Pharmacology ............................................................... 3
- Digital Literacy ........................................................................... 0-3

Total Credits: 18-21

*COM 101 may be used in certificates. If taken in the diploma, an additional three (3) credits will be needed to meet Area 1 requirements.

**PHA 200 and PHA 205 may substitute for PHA 104 but PHA 104 will not substitute for PHA 200 and PHA 205.

Physical Therapist Assistant

This program prepares the individual to become a physical therapist assistant (PTA) who is able to perform selected components of intervention and data collection under the direction and supervision of a physical therapist. The program is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE*).

The curriculum combines general education and physical therapy courses. Various facilities are utilized for clinical experiences. The graduate is eligible to sit for the national licensing examination for the physical therapist assistant. Enrollment in this program is limited; therefore, a selective admissions process is followed.

Students enrolled in the Physical Therapist Assistant program must achieve a minimum grade of “C” in each required general education course; a minimum grade of “C” in each required PTA didactic course; and a grade of pass in each clinical practicum course to complete the program.

CPR requirements must be attained by completing a program-approved CPR course prior to enrolling in the first physical therapist assistant course and must be kept current throughout the program.

*The Physical Therapist Assistant programs at Hazard Community and Technical College / Southeast Kentucky Community and Technical College, Jefferson Community and Technical College, Madisonville Community College, Somerset Community College, and West Kentucky Community and Technical College are accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE) 1111 North Fairfax Street, Alexandria, VA, 22314; telephone: 703-706-3245; e-mail: accreditation@apta.org; website: www.capteonline.org.
### Associate in Applied Science

**Physical Therapist Assistant - 5108067049**  
(Offered at BSC, HPC, HZC, JFC, MDC, SEC, SMC, WKC)

**Pathway 1 - 510806703**  
(Offered at BSC, HPC, HZC, JFC, SEC, SMC, WKC)

**General Education:**

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**Subtotal 26**  
**Total 66-69**

**Plastics Processing**

The Plastics Processing certificate will prepare students for an entry-level position in plastics processing companies.

**Certificate**

**Plastics Processing - 1506073049**  
(Offered at MYC)

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<tr>
<td><strong>Total Credits</strong></td>
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**Plumbing Technology**

Installing water supply and waste disposal systems in residential, commercial, and highly complex industrial sites is the focus of the plumbing program. In addition to practical experiences, instruction is given in laws and codes, blueprint reading, drawing, special equipment and other related areas.

Progression in the Plumbing technology program is contingent upon achievement of a grade of "C" or better in each PLB and BRX course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

**Associate in Applied Science**

**Plumbing Technology - 4605037019**  
(Offered at ELC)

**General Education:**

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**Subtotal 22**  
**Total Credits 64-67**

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**Associate in Applied Science**

**Plumbing Technology - 4605037019**  
(Offered at ELC)

**General Education:**

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**Subtotal 22**  
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**Diploma**

**Plumber Mechanic - 4605034019**

*(Offered at ELC, JFC, MYC)*

**General Education:**

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**Technical Courses:**

| PLB 150 | Plumbing, Introduction to the Trade AND | 3 |
| PLB 151 | Basic Plumbing Skills OR                | 3 |
| PLB 100 | Basic Theory of Plumbing AND            | (3) |
| PLB 105 | Plumbing Principles                     | (3) |
| PLB 160 | Plumbing Systems, DWV & Water           | 3 |
| PLB 161 | Rough-In of Plumbing Fixtures           | 2 |
| PLB 250 | Plumbing Appliances & Fixtures          | 3 |
| PLB 251 | Pumps & Water Heaters                   | 2 |
| PLB 260 | Service AND                             | 2 |
| PLB 261 | Advanced Plumbing Lab OR                | 2 |
| PLB 265 | Valve & Faucet Repairs AND              | (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 Practicum/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 | Introduction to Industrial Safety OR     | 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 300 | Plumbing Appliances & Fixtures          | (3) |
| PLB 250 | Pumps & Water Heaters                   | 2 |
| 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 160 | Plumbing Applications                   | 4 |
| ISX 101 | Introduction to Industrial Safety OR     | 3 |
| ISX 100 | Industrial Safety                       | (3) |
| **Total** |                                               | **13** |

**1st Year Plumber Mechanic - 4605033109**

*(Offered at 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 160 | Plumbing Systems, DWV & Water           | 3 |
| PLB 161 | Rough-In of Plumbing Fixtures           | 2 |
| PLB 250 | Plumbing Appliances & Fixtures          | 3 |
| PLB 251 | Pumps & Water Heaters                   | 2 |
| PLB 260 | Service AND                             | 2 |
| **Total** |                                               | **16** |

**2nd Year Plumber Mechanic* - 4605033119**

*(Offered at 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 160 | Plumbing Systems, DWV & Water           | 3 |
| PLB 161 | Rough-In of Plumbing Fixtures           | 2 |
| PLB 250 | Plumbing Appliances & Fixtures          | 3 |
| PLB 251 | Pumps & Water Heaters                   | 2 |
| PLB 262 | Backflow Prevention                     | 3 |
| PLB 260 | Service AND                             | 2 |
| PLB 261 | Advanced Plumbing Lab AND               | (2) |
| PLB 270 | License Preparation for Journeyman Exam OR | 3 |
| PLB 260 | Service AND                             | (2) |
| PLB 265 | Valve & Faucet Repairs AND              | (1) |
| PLB 267 | Water Heater Service & Replacement AND  | (1) |
| **Total** |                                               | **24-26** |

*Requires that the graduate pass a written test with 80% accuracy and a 3-part performance test.

**Plumber Estimator - 4605033099**

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

| PLB 150 | Plumbing, Introduction to the Trade AND | 3 |
| PLB 151 | Basic Plumbing Skills OR                | 3 |
| PLB 100 | Basic Theory of Plumbing AND            | (3) |
| PLB 105 | Plumbing Principles                     | (3) |
| PLB 160 | Plumbing Systems, DWV & Water           | 3 |
| PLB 161 | Rough-In of Plumbing Fixtures           | 2 |
| PLB 250 | Plumbing Appliances & Fixtures          | (3) |
| PLB 251 | Pumps & Water Heaters                   | 2 |
| **Total** |                                               | **3** |
gram. Upon completion, graduates will receive an Associate in Applied

pottery studio design and marketing procedures for the professional pot-
throwing skills with emphasis on form and design. Study will include

both traditional and contemporary concepts of pottery. The program

provides training in technical skills, design skills, and marketing and busi-

ness essentials. Course work includes development of basic and advanced

procedures for building kilns. Topics include safety, historical and perspective, materi-

als, 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 dif-

erent types of kilns using two different types of fuels. Upon successful

completion of the program, students will be able to supervise the con-

struction of kilns for use by professional potters.

Professional Raku Pottery Certificate:

Provides students with advanced instruction in the techniques of pro-
ducing and firing raku pottery. The program provides instruction in
advanced shapes and decoration; constructing, loading, and firing a per-
sonal 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)

PC 110 Introduction to Pottery ............................................. 7
PC 250 Professional Kiln Design ......................................... 5
PC 252 Professional Kiln Building ...................................... 5
Total ................................................................. 17

Professional Raku Pottery - 5007113019

(Offered at SEC)

PC 110 Introduction to Pottery ............................................. 7
PC 254 Professional Raku Pottery I .................................... 5
PC 256 Professional Raku Pottery II ................................. 5
Total ................................................................. 17

Professional Studio Artist

The Professional Studio Artist (PSA) program prepares individuals for

careers as independent studio artists and business owners, designers,
performers and studio technicians. The curriculum offers technical, de-

sign, product development and performance classes in a variety of disci-

plines coupled with business, marketing and management courses. Class

work covering the history and traditions of each discipline, basic studio

development and technology requirements will be a vital part of the

student’s education. Students will complete a track of study and acquire

the necessary technical proficiencies, creative problem solving, business

skills, production processes and the knowledge to apply these aspects to
careers in the craft, music, theater, or applied arts fields.

The AAS Track in Wood/Furniture Design prepares a student to start a

business in studio furniture design and manufacturing, begin employ-

ment as a designer/maker for a small to mid-size woodworking compa-

ny, work as a model maker/prototype builder for the wood/furniture in-

dustry, work as a furniture maker/technician, start a career as a furniture

conservationist, or pursue a four-year degree. The program of study will

offer a diverse and comprehensive study in furniture design and making;
the technology of wood as a material; the technical aspects of wood ma-

chinery and hand tool usage; the importance and applications of drawing
and design; and the practicality of business ownership, craft marketing
and business management.

The diploma in Wood Studio Technician and the certificate in Furniture
Making Fundamentals will afford students the opportunity to acquire

Professional Craft: Pottery

This program is designed to prepare individuals for employment as pro-
fessional 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 busi-
ness 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 pot-
ter. Graduates will be able to open and operate their own pottery, work
for existing pottery businesses, or transfer to a four-year degree pro-
gram. Upon completion, graduates will receive an Associate in Applied
Science degree.
specialized and basic technical skills as furniture makers. The Wood Studio Certificate will give the student an intensive foundation in woodworking techniques and studio practice. The diploma and certificate programs signify that the student possesses a basic understanding of woodworking and furniture making procedures necessary for entry-level positions in the custom furniture industry.

The AAS Jewelry/Metals Track prepares a student to start a business in studio jewelry design, producing one-of-a-kind and limited production pieces in jewelry/metal conservation. Creative problem solving and functional design are essentials to the program as well as extensive laboratory coursework in all aspects of jewelry repair, the metallurgical science of precious metals, traditional and non-traditional metal processes, processes of jewelry mass production, silversmithing, goldsmithing and work in new technologies such as computer-aided jewelry design.

The diploma in Jewelry/Metals Technician and the certificate in Jewelry/Metals Fundamentals will afford students the opportunity to acquire specialized and basic technical skills as jewelry makers and technicians. The Jewelry Studio certificate will give the student an intensive foundation in metals technique and studio practice. The diploma and certificate programs signify that the student possesses a basic understanding of jewelry design and making procedures necessary for entry-level positions in the custom or commercial jewelry industry.

The AAS Track in Bluegrass & Traditional Music prepares a student to begin work as a professional bluegrass and traditional musician in the areas of performance, touring, studio recording, studio engineering, and songwriting. The track also provides training in music business, management and event promotion while providing the student preparation to pursue a four-year degree. Program studies will offer in-depth mentoring and “real world” performance situations for solo, ensemble, and instrumental musicians as well as recording session set-up, sound enhancement and band management.

The diploma in Bluegrass & Traditional Studio Artist and the certificate in Bluegrass & Traditional Music Fundamentals will afford students the opportunity to acquire training in the basics of performance, recording, songwriting and management. The diploma and certificate programs signify that the student possesses a basic understanding of the major components necessary for an entry-level career in Bluegrass and Traditional Music.

The AAS track in Ceramics prepares a student to start a business in studio production for pottery, tiles, slip casting, mold making and kiln building; begin employment as a studio technician to maintain equipment and manage various kinds of kiln firings; work for commercial ceramics businesses as a production designer, decorator, mold-maker, decal maker, conservationist, kiln and/or glaze technician; or to pursue higher degrees in the field of ceramics. The program is designed to prepare students to become independent and self-reliant ceramicists in creative and functional design.

The diploma in Ceramics Studio Technician and the certificate in Ceramics Fundamentals will afford students the opportunity to acquire specialized and basic technical skills as a ceramicist and technician. The Ceramics Studio Certificate will give the student an intensive foundation in ceramics technique and studio practice. The diploma and certificate programs signify that the student possesses a basic understanding of ceramic object design and fabrication techniques necessary for entry-level positions in custom or commercial ceramic industry.

Documentation of digital literacy as defined by KCTCS is required prior to enrolling in the first PSA course.

---

**Associate in Applied Science**

**Professional Studio Artist - 5002017019**

*(Offered at HZC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
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<tr>
<td>MAT 110</td>
<td>Applied Mathematics OR</td>
<td>3</td>
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<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications OR</td>
<td>3</td>
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<td>COM 181</td>
<td>Basic Public Speaking</td>
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**Wood/Furniture Design Track - 500201701**

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<th>Course Title</th>
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<td>ART 112</td>
<td>2-Dimensional Design</td>
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<td>ART 113</td>
<td>3-Dimensional Design</td>
<td>3</td>
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<tr>
<td>BAS 200</td>
<td>Small Business Management</td>
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<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I</td>
<td>3</td>
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<tr>
<td>PSW 111</td>
<td>Introduction to Furniture Making</td>
<td>3</td>
</tr>
<tr>
<td>PSW 115</td>
<td>Furniture Making II</td>
<td>3</td>
</tr>
<tr>
<td>PSW 116</td>
<td>Wood Finishing</td>
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<tr>
<td>PSW 117</td>
<td>Wood Turning for Furniture</td>
<td>3</td>
</tr>
<tr>
<td>PSW 210</td>
<td>Furniture Making III</td>
<td>3</td>
</tr>
<tr>
<td>PSW 211</td>
<td>Wood Bending and Veneering</td>
<td>3</td>
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<tr>
<td>PSW 212</td>
<td>Chair Design</td>
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<td>PSW 215</td>
<td>Furniture Making IV</td>
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<td>PSW 220</td>
<td>Furniture/Wood Product Development</td>
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<td>PSA 240</td>
<td>Professional Artist Seminar</td>
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**Total Credits** 61-62

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**Jewelry/Metals Track - 500201702**

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<tr>
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<td>ART 113</td>
<td>2-Dimensional Design</td>
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<td>Fundamentals of Accounting I</td>
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<td>PSJ 110</td>
<td>Jewelry/Metals I</td>
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<tr>
<td>PSJ 115</td>
<td>Jewelry/Metals II</td>
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<tr>
<td>PSJ 116</td>
<td>Ancient Techniques</td>
<td>3</td>
</tr>
<tr>
<td>PSJ 117</td>
<td>Metal Casting /Finishing Techniques</td>
<td>2</td>
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<td>PSJ 210</td>
<td>Jewelry/Metals III</td>
<td>3</td>
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<tr>
<td>PSJ 211</td>
<td>Hollowware and Metal Forming</td>
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<tr>
<td>PSJ 212</td>
<td>Metallurgy of Precious Metals</td>
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<tr>
<td>PSJ 215</td>
<td>Jewelry/Metals IV</td>
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<tr>
<td>PSJ 216</td>
<td>Stone Setting</td>
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<tr>
<td>PSJ 220</td>
<td>Jewelry/Metals Product Development</td>
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<td>PSA 240</td>
<td>Professional Artist Seminar</td>
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**Total Credits** 63-64

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**Bluegrass and Traditional Music Track - 500201703**

*(Offered HZC)*

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<td>ACT 101</td>
<td>Fundamentals of Accounting I</td>
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<td>MUS 174</td>
<td>Theory for Non-Music Majors</td>
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<td>MUC 150</td>
<td>Classic Instruction to Piano OR</td>
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<tr>
<td>PSM 101</td>
<td>Bluegrass &amp; Traditional Music History</td>
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<td>PSM 105</td>
<td>Recording I</td>
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<td>PSM 107</td>
<td>Songwriting I</td>
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196
Technical/Support Courses

Digital Literacy OR ...................................................... 0-3
Digital Competency by exam

Digital Competency by exam

Drawing I ................................................................. 3
Drawing II ................................................................. 3

3-Dimensional Design ............................................. 1
3-Dimensional Design ............................................. 1

Small Business Management .................................... 3
Small Business Management .................................... 3

Jewelry/Metals I ....................................................... 3
Jewelry/Metals II ..................................................... 3

Metal Casting / Finishing Techniques ......................... 2
Metal Casting / Finishing Techniques ......................... 2

Hollowware and Metal Forming ................................ 3
Hollowware and Metal Forming ................................ 3

Metallurgy of Precious Metals ................................. 2
Metallurgy of Precious Metals ................................. 2

Jewelry/Metals III .................................................... 3
Jewelry/Metals IV ................................................... 3

Stone Setting .......................................................... 3
Stone Setting .......................................................... 3

Subtotal 6
Subtotal 6

Total Credits 34-37
Total Credits 34-37

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
Subtotal 9

Support Courses

Small Business Management .................................... 3
Small Business Management .................................... 3

Survey of Appalachian Studies I ................................. 3
Survey of Appalachian Studies I ................................. 3

Theory for Non-Music Majors ................................... 3
Theory for Non-Music Majors ................................... 3

Subtotal 3
Subtotal 3

Total Credits 35-45
Total Credits 35-45

Ceramics Studio Technician - 5002014049

Technical/Support Courses

Digital Literacy OR ...................................................... 0-3
Digital Literacy by exam

Digital Competency by exam

Drawing I ................................................................. 3
Drawing I ................................................................. 3

3-Dimensional Design ............................................. 1
3-Dimensional Design ............................................. 1

Small Business Management .................................... 3
Small Business Management .................................... 3

Ceramics I .............................................................. 3
Ceramics I .............................................................. 3

Ceramics II ............................................................. 3
Ceramics II ............................................................. 3

Glaze Calculations ................................................... 2
Glaze Calculations ................................................... 2

Kiln Operation and Design ...................................... 3
Kiln Operation and Design ...................................... 3

Ceramic Production Techniques ................................. 3
Ceramic Production Techniques ................................. 3

Ceramics IV ............................................................ 3
Ceramics IV ............................................................ 3

Ceramics Product Development ................................ 3
Ceramics Product Development ................................ 3

Ceramics V ............................................................. 3
Ceramics V ............................................................. 3

Professional Artist Seminar ...................................... 3
Professional Artist Seminar ...................................... 3

Subtotal 6
Subtotal 6

Total Credits 63-64
Total Credits 63-64

Diplomas

Wood Studio Technician - 5002014019

Technical/Support Courses

Writing I ................................................................. 3
Writing I ................................................................. 3

Applied Mathematics OR ............................................. 3
Applied Mathematics OR ............................................. 3

Any higher level Quantitative Reasoning course .......... (3)
Any higher level Quantitative Reasoning course .......... (3)

Subtotal 6
Subtotal 6

Total Credits 60-63
Total Credits 60-63

Jewelry/Metals Technician - 5002014029

Technical/Support Courses

Writing I ................................................................. 3
Writing I ................................................................. 3

Applied Math OR ....................................................... 3
Applied Math OR ....................................................... 3

Any higher level math ................................................. 3
Any higher level math ................................................. 3

Subtotal 6
Subtotal 6

Total Credits 34-37
Total Credits 34-37

Academic Curricula
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<tbody>
<tr>
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<td>3</td>
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<tr>
<td>Art 112 2-Dimensional Design</td>
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<td>Art 110 Jewelry/Metals I</td>
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<td>Art 115 Jewelry/Metals II</td>
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### Certificates

#### Furniture Making Fundamentals - 5002013029

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<tbody>
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<tr>
<td>Art 112 2-Dimensional Design</td>
<td>3</td>
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<tr>
<td>Psm 107 Songwriting I</td>
<td>1</td>
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<tr>
<td>Psm 112 Individual String Instrument Instruction x2</td>
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<td>Psm 105 Recording I</td>
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<td>Psm 107 Songwriting I</td>
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<tr>
<td>Psm 114 Bluegrass &amp; Traditional Band/Ensemble x2</td>
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<td>Psm 101 Bluegrass &amp; Traditional Music History I</td>
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<td>Psm 113 Guitar I OR</td>
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#### Audio Recording – 5002013089

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#### Wood Furniture Studio - 5002013059

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<tr>
<td>Art 112 2-Dimensional Design</td>
<td>3</td>
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<tr>
<td>Psx 116 Wood Finishing</td>
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<td>Psx 211 Wood Turning for Furniture</td>
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#### Project Lead the Way

**Certificate**

**Biomedical Science – PLTW – 5100003040**

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<tr>
<td>Plw 135 Principles of Human Body Systems</td>
<td>4</td>
</tr>
<tr>
<td>Plw 140 Medical Interventions</td>
<td>4</td>
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<td>Plw 145 Biomedical Innovations</td>
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**Engineering Related – PLTW – 1515993019**

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<tr>
<td>Plw 125 Principles of Engineering</td>
<td>4</td>
</tr>
<tr>
<td>Plw 150 Digital Electronics</td>
<td>4</td>
</tr>
<tr>
<td>Plw 200 Aerospace Engineering or Architecture</td>
<td>(4)</td>
</tr>
<tr>
<td>Plw 250 Computer Integrated Manufacturing</td>
<td>(4)</td>
</tr>
<tr>
<td>Plw 295 Engineering Design and Development</td>
<td>4</td>
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<tr>
<td>Total Credits</td>
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#### Radiography

This program prepares the individual to become a radiographer. The radiographer is prepared to administer ionizing radiation for medical diagnostic imaging purposes. Emphasis is on radiation protection and quality patient care. The curriculum is comprised of specialized courses in radiography with concentrated study in the basic sciences, mathematics and general education. Students enrolled in the Radiography program must achieve a minimum grade of “C” in each Radiography course, required natural science course, and required quantitative reasoning course. Upon
completion of the program, the graduate is eligible to apply to write the examination for registration as a radiographer by the American Registry of Radiologic Technologists. Radiographers may find positions in hospitals, health clinics, and physicians’ offices. Research laboratories and some industrial firms may also employ radiographers. The curriculum requires attendance in the summer session, fall and spring semesters. Note: CPR certificate must be obtained prior to enrolling in IMG 100 or IMG 104, IMG 106 and IMG 108 and certification must be kept current throughout the program. Note: Documentation of digital literacy as defined by KCTCS is required prior to admission to IMG courses.

Advanced Imaging in Radiography focuses on the areas of Computed Tomography (CT) and Magnetic Resonance Imaging (MRI) in the Radiological Sciences. Didactic and clinical instruction prepares the technologist to work in the areas of CT and MRI in the healthcare setting and to sit for the Advanced Board Exams given by the American Registry of Radiologic Technologists. These courses are offered for technologists who are currently registered by the American Registry of Radiologic Technologists in Radiography or the Nuclear Medicine Technology Certification Board in Nuclear Medicine, or students who have completed one year and are currently enrolled in an accredited radiography or nuclear medicine program, or by consent of the instructor. The core curriculum courses are intended to provide the student with an overall knowledge of advanced patient care and sectional anatomy. The CT and MRI tracks focus on the physics, instrumentation and imaging techniques of these modalities. The student may choose CT or MRI or both. Although these courses are organized in a hierarchical pattern, depending on the entry-level knowledge and the needs of the student, they may be taken out of sequence with consent of the instructor.

Note: Hours Exception (71-75 for the A.A.S. and 56-62 for the Diploma) approved by the KCTCS Board of Regents in June 2010.

### Associate in Applied Science

**Radiography - 5109117019**

*(Offered at BLC, ELC, HPC, HZC, JFC, MDC, SEC, SKY, SMC, WKC)*

#### General Education:
- Social/Behavioral Sciences .................................................. 3
- Heritage/Humanities ......................................................... 3
- Oral Communications ..........................................................3

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<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>ENG 101</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra OR Higher Level Quantitative Reasoning Course</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
</tr>
<tr>
<td>PHY 172</td>
<td>Physics for Health Sciences OR</td>
</tr>
<tr>
<td>PHY 152</td>
<td>Introduction to Physics OR</td>
</tr>
<tr>
<td>PHY 171</td>
<td>Applied Physics</td>
</tr>
</tbody>
</table>

**Support Course:**
- CLA 131 | Medical Terminology from Greek & Latin OR | 3 |
- AHS 115 | Medical Terminology | (3) |

**Subtotal** 25-27

### Pathway 1 – 510911701

*(Offered at BLC, HZC, SEC)*

#### 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 |

**Subtotal** 45

**Total Credits Pathway 1** 73-75

### Pathway 2 – 510911702

*(Offered at ELC, HPC, JFC, MDC, SEC, SKY, SMC, WKC)*

#### Technical Courses:
- IMG 104 | Introduction to Radiography | 2 |
- IMG 106 | Patient Care in Radiography* | 2 |
- IMG 108 | Radiographic Procedures I | 4 |
- IMG 109 | Clinical Practice I | 1 |
- IMG 114 | Image Production and Acquisition | 2 |
- IMG 116 | Advanced Patient Care in Radiography | 2 |
- IMG 118 | Radiographic Procedures II | 4 |
- IMG 119 | Clinical Practice II | 3 |
- IMG 209 | Clinical Practice III | 3 |
- IMG 214 | Imaging Equipment | 2 |
- IMG 216 | Basic Computed Tomography | 1 |
- IMG 219 | Clinical Practice IV | 6 |
- IMG 224 | Radiation Protection & Biology | 2 |
- IMG 226 | Radiography Pathology | 1 |
- IMG 228 | Radiography Seminar | 2 |
- IMG 229 | Clinical Practice V | 6 |

**Subtotal** 43

**Total Credits Pathway 2** 71-73

*NAA 100 may be substituted for IMG 106.

### Certificate

**Advanced Imaging in Radiography- 5109113029**

#### Core
- IMG 230 | Sectional Anatomy for Advanced Imaging | 3 |
- IMG 240 | Pathology for Advanced Medical Imaging Modalities | 3 |

**Subtotal** 6

#### Computed Tomography Track – 510911301

*(Offered at HZC, SEC)*

- IMG 250 | Computed Tomography Physics and Instrumentation | 3 |
- IMG 260 | Computed Tomography Imaging Procedures | 3 |

**Subtotal** 6

**Total Credits** 12

#### Computed Tomography with Clinical Track – 510911302

*(Offered at SMC, WKC)*

- IMG 250 | Computed Tomography Physics and Instrumentation | 3 |
- IMG 260 | Computed Tomography Imaging Procedures | 3 |
- IMG 285 | Computed Tomography Clinical Practice I | 4 |

**Subtotal** 10

**Total Credits** 16

#### Magnetic Resonance Imaging Track – 510911303

*(Offered at HZC, SEC)*

- IMG 255 | Magnetic Resonance Physics and Instrumentation | 3 |
- IMG 265 | Magnetic Resonance Imaging Technology | 3 |

**Subtotal** 6

**Total Credits** 12

199
The Respiratory Care program prepares the graduate to take an active role in the maintenance and/or restoration of cardiopulmonary homeostasis. The curriculum includes intensive course work in the supporting sciences and general education areas. Classroom instruction is supplemented with learning experiences in the campus laboratory and in area clinical affiliates. Students enrolled in the Respiratory Care program are required to achieve a minimum grade of "C" in each Respiratory Care course.

Although hospitals employ the majority of respiratory therapists, other employers include home care providers, medical clinics, nursing homes, and industry. Graduates are qualified to take the National Board for Respiratory Care examinations to earn the Certified Respiratory Therapist (C.R.T.) credential and the Registered Respiratory Therapist (RRT) credential.

*Note: The Kentucky Board for Respiratory Care may deny mandatory certification for convicted felons. Questions should be directed to the Kentucky Board for Respiratory Care.

* Note: Digital literacy must be documented by competency exam or by completing a digital literacy course.

Note: Hours Exception (67-70 for the A.A.S) approved by the KCTCS Board of Regents in June 2010.

**Certificates**

### Polysomnographic Technologist - 5109083069

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology *</td>
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<td>Human Anatomy &amp; Physiology II*</td>
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<tr>
<td>MAT 150</td>
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<tr>
<td>MAT 146</td>
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<td>ENG 101</td>
<td>Writing I *</td>
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<td>PSG 100</td>
<td>Introduction to Polysomnography</td>
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</tr>
<tr>
<td>PSG 110</td>
<td>Polysomnography Level I</td>
<td>3</td>
</tr>
<tr>
<td>PSG 111</td>
<td>Polysomnography Lab I</td>
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<td>PSG 115</td>
<td>Polysomnography Practice I</td>
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<td>PSG 130</td>
<td>Polysomnography Level II</td>
<td>3</td>
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<td>PSG 131</td>
<td>Polysomnography Lab II</td>
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<tr>
<td>PSG 133</td>
<td>Pathology of Sleep and Related Disorders</td>
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<tr>
<td>PSG 135</td>
<td>Polysomnography Practice II</td>
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</tr>
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**Total Credits:** 36

*General Education Course*

**Electrocardiographic and Cardiac Monitoring Technician - 5109083049**

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

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology *</td>
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<td>College Algebra* OR</td>
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<tr>
<td>MAT 146</td>
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<td>MAT 110</td>
<td>Applied Mathematics*</td>
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<tr>
<td>AHS 115</td>
<td>Medical Terminology</td>
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**Total Credits:** 17-21

*General Education Course*

**Technical Courses**

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<td>RCP 110</td>
<td>Cardiopulmonary Anatomy &amp; Physiology</td>
<td>3</td>
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<tr>
<td>RCP 120</td>
<td>Theory &amp; Principles of Respiratory Care OR</td>
<td>4</td>
</tr>
<tr>
<td>RCP 122</td>
<td>Fundamentals of Respiratory Care#</td>
<td>4</td>
</tr>
<tr>
<td>RCP 125</td>
<td>Cardiopulmonary Evaluation OR</td>
<td>4</td>
</tr>
<tr>
<td>RCP 140</td>
<td>Cardiopulmonary Assessment#</td>
<td>2</td>
</tr>
<tr>
<td>RCP 130</td>
<td>Pharmacology OR</td>
<td>3</td>
</tr>
<tr>
<td>HST 121</td>
<td>Pharmacology#</td>
<td>2</td>
</tr>
<tr>
<td>RCP 150</td>
<td>Clinical Practice I OR</td>
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<tr>
<td>HST 101</td>
<td>Basic Skills II* OR</td>
<td>3</td>
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<tr>
<td>RCP 121</td>
<td>Respiratory Care Practice I#</td>
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<tr>
<td>RCP 175</td>
<td>Respiratory Care Practice II OR</td>
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<tr>
<td>RCP 176</td>
<td>Respiratory Care Practice II#</td>
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<tr>
<td>RCP 180</td>
<td>Ventilatory Support AND</td>
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<tr>
<td>RCP 190</td>
<td>Advanced Ventilatory Support OR</td>
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<tr>
<td>RCP 185</td>
<td>Introduction to Mechanical Ventilation# AND</td>
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<tr>
<td>RCP 195</td>
<td>Patient Ventilator System Management#</td>
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<tr>
<td>RCP 200</td>
<td>Clinical Practices III OR</td>
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<tr>
<td>RCP 201</td>
<td>Respiratory Care Practice III#</td>
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<tr>
<td>RCP 204</td>
<td>Emergency and Special Procedures AND</td>
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</table>

**Total Credits:** 17-21

* General Education Course*

**Electrocardiographic and Cardiac Monitoring Technician - 5109083049**

+ In addition Twenty (20) hours of documented clinical Electrocardiographic experience or documented Electrocardiographic & Cardiac Monitoring Competence is required.

RCP courses currently only offered and required at BCTC to complete certificate.
Security Management

The Security Management Coordinator program provides a comprehensive overview of physical security policies, procedures and techniques. Topics covered are perimeter protection, intrusion detection, access control, CCTV, locks and locking devices, lighting, security design and surveys, contingency planning, and acts of violence. Instruction in all types of security hardware: electronic and mechanical door locks, access control systems and their devices, as well as intrusion detection systems and cameras, safe and safe hardware is available.

The Supply Chain Security program provides an overview of the needs and requirements for a safe, secure supply chain. The program looks at threats, and offers solutions. The House Select Committee on Homeland Security issued a comprehensive assessment (February 2004) on the United State’s levels of preparation against terrorist activity. The Committee concluded in part “Pathways to the United States by land, sea and air are insecure.” Security throughout transportation, storage, shipping and receiving of cargo is addressed in this program. The concept of proactive verses reactive, planning and the overall needs of a security operation are discussed. Specific security systems are discussed, as well as the creation and implementation of security policies. Basic security equipment and procedures, including perimeter protection, intrusion detection, security surveys and CCTV systems are covered, as well as management issues to include terrorism, crisis management and basic guard force management. A Security Design section of the program looks at ways to maximize the security benefit within operational (financial and aesthetic) constraints.

The Antiterrorism Physical Security Specialist program provides a comprehensive overview of a physical security program. Topics covered are access control systems; intrusion detection, both interior and exterior; crisis management; national incident management systems; contracting guard forces; international and domestic terrorism and their threat to America; security surveys/security audits; managing a security operation; IT security; CCTV; contingency planning; locks and locking devices; workplace violence; and perimeter security.

The Safe & Lock Technician program provides a comprehensive hands-on knowledge of safety and locks. This program will provide the technician with the training to service, maintain and troubleshoot safe and locks. Topics covered are electronic access control systems, safe lock servicing – electronic and mechanical, combination lock manipulation, basic safe penetration, locks and locks devices, safe and safe hardware, security hardware, electronic and mechanical door locks.

For all programs: Students will be required to undergo a criminal background investigation. If a student is presently employed by a law enforcement or federal agency that requires criminal checks, this requirement may be waived by LSI.

Electives: A minimum of 3 credit hours must be taken from this list of electives:

- LSI 100 Fundamental Principles of Physical Security ............... 2
- LSI 105 Force Protection ............................................... 3
- LSI 110 Security Surveys ............................................... 2
- LSI 115 Command Security Officer Training ....................... 4
- LSI 130 GSA: Locks, Vaults & Containers .......................... 4
- LSI 131 GSA: Locks, Vaults & Containers Certified Inspector Training ............................................... 1
- LSI 151 Basic Safe Penetration ......................................... 1
- LSI 152 Combination Lock Manipulation ............................ 1
- LSI 153 Safe Lock Servicing - Mechanical and Electronic .......... 2
- LSI 160 Fundamentals of Electricity .................................... 2
- LSI 170 Electronic Access Control ...................................... 2
- LSI 180 Security and Crime Prevention Management ................ 1
- LSI 185 Security and Crime Prevention Countermeasures ............ 1
- LSI 190 Security Hardware & Bypass Techniques ................... 1
- LSI 195 Tactical Lock (restricted enrollment) ......................... 8

Safe & Lock Technician - 4301123040

- LSI 150 Professional Industrial Locksmithing ....................... 4
- LSI 151 Safe Lock Servicing ........................................... 2
- Electives .................................................................. 10
Total Credits 16

Electives: A minimum of 10 credit hours must be taken from this list of electives.

- LSI 110 Security Surveys ............................................... 2
- LSI 130 GSA: Lock, Vault & Container ............................... 4
- LSI 151 Basic Safe Penetration ......................................... 1
- LSI 152 Combination Lock Manipulation ............................ 1
- LSI 160 Fundamentals of Electricity .................................... 2
- LSI 170 Electronic Access Control ...................................... 2
- LSI 182 Managing Security Operations ............................... 2

Social Media Marketing

The Social Media Marketing program will provide students who are interested in social media technology, and the specific way it can be utilized for maximizing visibility and functionality within the business sector, a holistic approach to running a social media marketing campaign. This program will provide not only an introduction to social media technology, but also a foundation for students to learn everything from terminology to multi-platform engagement techniques.

Certificate

Social Media Marketing - 1110053009
(Offered at ELC, MDC, SEC)

General Education Courses

- BAS 125 Social Media Marketing: Fundamental Concepts, Skills and Strategies .............................................. 3
- BAS 126 Social Media Marketing: Project Management and Implementation Strategies .............................................. 3
Subtotal 6

Certificates

Security Management Coordinator - 4301123010
(Offered at BLC)

- LSI 120 Comprehensive Security Specialist .......................... 4
- LSI 140 Managing Terrorism & Other Crises ........................... 1
- LSI 150 Professional Locksmithing ...................................... 4
- Electives .................................................................. 3
Total Credits 12

Academic Curricula
Surgical First Assisting

The Surgical First Assistant provides aid in exposure, hemostasis, and other technical functions that will help the surgeon carry out a safe operation with optimal results for the patient. This role will vary considerably with the surgical operation, specialty area, and type of facility. Clinical skills performed under direct supervision of the surgeon include the following: positioning the patient, preparing the skin, providing visualization of the operative site, utilizing appropriate techniques to assist with hemostasis, participating in volume replacement or auto transfusion techniques as appropriate, utilizing appropriate techniques in the closure of body planes, selecting and applying appropriate wound dressings and providing assistance in securing drainage system to tissue.

This program provides clinical experience built upon classroom instruction in the basic sciences, patient care, aseptic techniques and surgical procedures. Students enrolled in the Surgical First Assistant Program are required to achieve a minimum grade of “C” in each Surgical First Assistant course. Graduates from the program are eligible to take the certifying exams offered by the National Surgical Assistant Association (CSA) or the National Board of Surgical Technologists and Surgical Assistants (CSFA).

Associate in Applied Science

Surgical First Assisting - 5109097039
(Offered at MDC)

<table>
<thead>
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<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
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<tr>
<td>BIO</td>
<td>Basic Anatomy and Physiology with Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>ENG</td>
<td>Writing</td>
<td>3</td>
</tr>
<tr>
<td>MAT</td>
<td>College Algebra OR</td>
<td>3</td>
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<tr>
<td>MAT</td>
<td>Applied Mathematics</td>
<td>(3)</td>
</tr>
<tr>
<td>SUR</td>
<td>Surgical Technology Fundamentals</td>
<td>9</td>
</tr>
<tr>
<td>SUR</td>
<td>Principles of Surgical Pharmacology</td>
<td>2</td>
</tr>
<tr>
<td>SUR</td>
<td>Surgical Technology Advanced Theory</td>
<td>9</td>
</tr>
<tr>
<td>SUR</td>
<td>Surgical Technology Skills Practicum II</td>
<td>6</td>
</tr>
<tr>
<td>SUR</td>
<td>Surgical Technology Advanced Clinical Practicum</td>
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<tr>
<td>SUR</td>
<td>Surgical Anatomy</td>
<td>5</td>
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<tr>
<td>SUR</td>
<td>Principles of Surgical Assisting</td>
<td>3</td>
</tr>
<tr>
<td>SUR</td>
<td>Surgical First Assistant Clinical</td>
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<tr>
<td>SUR</td>
<td>Perioperative Bioscience</td>
<td>3</td>
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<tr>
<td>SUR</td>
<td>Surgical First Assistant Practicum</td>
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Subtotal 16

Technical Courses:

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<th>Course</th>
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<td>SUR</td>
<td>Digital Literacy</td>
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</tr>
<tr>
<td>MAT</td>
<td>Social/Behavioral Sciences course</td>
<td>3</td>
</tr>
</tbody>
</table>

Subtotal 16

Total Credit Hours 61-64

For program admission, student must be a certified Surgical Technologist or an RN with operating room experience OR consent of instructor.

For program admission, CPR or BLS certificate must be obtained prior to enrolling in the program; certification must be kept current throughout the program.

Surgical Technology

Surgical technologists are allied health professionals who are an integral part of the team of medical practitioners providing surgical care to patients in a variety of settings such as medical offices, out-patient clinics, and the operating room.

The surgical technologist works under medical supervision to facilitate the safe and effective conduct of invasive surgical procedures. This individual works under the supervision of a surgeon to ensure that the operating room environment is safe, that equipment functions properly, and that the operative procedure is conducted under conditions that maximize patient safety.

A surgical technologist possesses expertise in the theory and application of sterile and aseptic techniques and combines the knowledge of human anatomy, surgical procedures, and implementation tools and technologies to facilitate a physician’s performance of invasive therapeutic and diagnostic procedures.

This program provides clinical experience built upon classroom instruction in the basic sciences, patient care, aseptic techniques and surgical procedures. Students enrolled in the Surgical Technology Program are required to achieve a minimum grade of “C” in each course required for the credential. Students who withdraw from or earn less than a “C” in any course with a Surgical Technology prefix will be dropped from the Surgical Technology program and must reapply for admission. CPR (for Healthcare Providers) course must be completed prior to the first surgical technology skills practicum course and must remain current throughout the Surgical Technology program.

Students who have completed program requirements must sit for the certifying examination offered by the National Board on Certification for Surgical Technology and Surgical Assisting (NBSTSA), 6 West Dry Creek Circle, Suite 100; Littleton, CO 80120; Phone: (800) 707 0057; www.nbstsa.org.

The following programs hold accreditation from the Commission on Accreditation of Allied Health Education Programs (CAAEHP) 25400 US Highway 19 N, Suite 158, Clearwater Florida 33763; (727) 210 2350; www.caahep.org who accredits programs upon the recommendation of the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA), 6 West Dry Creek Circle, Suite 110; Littleton, CO 80120; Phone: (303) 694 9262; www.arcst.org.; Ashland Community and Technical College Bluegrass Community and Technical College, Hazel Community and Technical College, Jefferson Community and Technical College, Madisonville Community College, Owens-
boro Community and Technical College, Somerset Community College, Southcentral Kentucky Community and Technical College, Southeast Kentucky Community and Technical College, and West Kentucky Community and Technical College.

**Associate in Applied Science**

**Surgical Technology - 5109097019**

(Offered at BLC, BSC, HPC, HZC, JFC, MDC, OW, SEC, SKY, SMC, WKC)

### General Education:

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<th>Credit Hours</th>
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<tbody>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I AND</td>
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<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
<td>4</td>
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<td>MAT 110</td>
<td>Applied Mathematics OR</td>
<td>3</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra OR</td>
<td>(3)</td>
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<td>Higher level Quantitative Reasoning Course</td>
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<td>Writing I</td>
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<td></td>
<td>Heritage/Humanities</td>
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**Subtotal** 20

### Technical Courses:

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<td>Medical Terminology from Greek &amp; Latin OR</td>
<td>0-3</td>
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<td>AHS 115</td>
<td>Medical Terminology OR</td>
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<tr>
<td>MIT 103</td>
<td>Medical Office Terminology</td>
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<td>SUR 100</td>
<td>Surgical Technology Fundamentals/Theory OR</td>
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<td>SUR 109</td>
<td>Introduction to Surgical Technology AND</td>
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<td>SUR 110</td>
<td>Surgical Technology Fundamentals</td>
<td>(9)</td>
</tr>
<tr>
<td>BIO 225</td>
<td>Medical Microbiology OR</td>
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<td>BIO 226</td>
<td>Principles of Microbiology OR</td>
<td>(3)</td>
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<td>BIO 227</td>
<td>Principles of Microbiology OR</td>
<td>(3)</td>
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<tr>
<td>BIO 118</td>
<td>Microbes and Society</td>
<td>(3)</td>
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<tr>
<td>SUR 101</td>
<td>Surgical Technology Fundamentals Lab</td>
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<td>SUR 130</td>
<td>Principles of Surgical Pharmacology</td>
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<td>SUR 200</td>
<td>Surgical Technology Advanced Theory</td>
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</table>

A total of 10 credit hours must be completed from the following practicum courses:

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<th>Credit Hours</th>
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<tbody>
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<td>Surgical Technology Skills Practicum I</td>
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<td>SUR 201</td>
<td>Surgical Technology Skills Practicum II</td>
<td>6-7</td>
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<tr>
<td>SUR 275</td>
<td>Surgical Technology Advanced Clinical Practicum</td>
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**Subtotal** 40-45

**Total Credits** 60-65

### Elective(s):

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<th>Credit Hours</th>
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<td>SUR 270</td>
<td>Pathophysiology for Surgical Technology OR</td>
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<tr>
<td>MAI 200</td>
<td>Pathophysiology for Medical Assistants</td>
<td>(3)</td>
</tr>
<tr>
<td>BAS 120</td>
<td>Personal Finance</td>
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<tr>
<td>MNA 100</td>
<td>Medicaid Nurse Aide OR</td>
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<td>NAA 100</td>
<td>Nursing Assistant Skills I</td>
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</table>

**Note:**

CPR certificate must be obtained prior to enrolling in the first Surgical Technology skills practicum course and must remain current throughout the Surgical Technology Program.

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

---

**Diploma**

**Surgical Technologist - 5109094019**

(Offered at ASC, BSC, JFC, MDC, OW, SEC)

### General Education:

<table>
<thead>
<tr>
<th>Area 1 =</th>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>Area 2</td>
<td>BIO 135</td>
<td>Basic Anatomy &amp; Physiology with Lab OR</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I AND</td>
<td>(4)</td>
</tr>
<tr>
<td></td>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II OR</td>
<td>(4)</td>
</tr>
</tbody>
</table>

**Subtotal** 7-11

### Technical Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek &amp; Latin OR</td>
<td>3</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology OR</td>
<td>(3)</td>
</tr>
<tr>
<td>MIT 103</td>
<td>Medical Office Terminology</td>
<td>(3)</td>
</tr>
<tr>
<td>SUR 109</td>
<td>Introduction to Surgical Technology AND</td>
<td>(3)</td>
</tr>
<tr>
<td>SUR 110</td>
<td>Surgical Technology Fundamentals OR</td>
<td>(9)</td>
</tr>
<tr>
<td>BIO 225</td>
<td>Medical Microbiology OR</td>
<td>4</td>
</tr>
<tr>
<td>BIO 226</td>
<td>Principles of Microbiology OR</td>
<td>(3)</td>
</tr>
<tr>
<td>BIO 227</td>
<td>Principles of Microbiology OR</td>
<td>(3)</td>
</tr>
<tr>
<td>BIO 118</td>
<td>Microbes and Society</td>
<td>(3)</td>
</tr>
<tr>
<td>SUR 101</td>
<td>Surgical Technology Fundamentals Lab</td>
<td>1</td>
</tr>
<tr>
<td>SUR 130</td>
<td>Principles of Surgical Pharmacology</td>
<td>2</td>
</tr>
<tr>
<td>SUR 200</td>
<td>Surgical Technology Advanced Theory</td>
<td>9</td>
</tr>
<tr>
<td>WPP 200</td>
<td>Workplace Principles OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 250</td>
<td>Business Employability Seminar</td>
<td>(1)</td>
</tr>
</tbody>
</table>

**A total of 10 credit hours must be completed from the following practicum courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUR 125</td>
<td>Surgical Technology Skills Practicum I</td>
<td>2-3</td>
</tr>
<tr>
<td>SUR 201</td>
<td>Surgical Technology Skills Practicum II</td>
<td>6-7</td>
</tr>
<tr>
<td>SUR 275</td>
<td>Surgical Technology Advanced Clinical Practicum</td>
<td>2</td>
</tr>
</tbody>
</table>

**Subtotal** 38-48

**Total Credits** 45-59

### Elective(s):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUR 103</td>
<td>Surgical Technology Didactic Practicum</td>
<td>(1)</td>
</tr>
<tr>
<td>SUR 270</td>
<td>Pathophysiology for the Surgical Technologist OR</td>
<td>(2)</td>
</tr>
<tr>
<td>MAI 200</td>
<td>Pathophysiology for the Medical Assistant</td>
<td>(3)</td>
</tr>
<tr>
<td>EFM 100</td>
<td>Personal Financial Management OR</td>
<td>(3)</td>
</tr>
<tr>
<td>BAS 120</td>
<td>Personal Finance</td>
<td>(3)</td>
</tr>
<tr>
<td>MNA 100</td>
<td>Medicaid Nurse Aide OR</td>
<td>(3)</td>
</tr>
<tr>
<td>NAA 100</td>
<td>Nursing Assistant Skills I</td>
<td>(3)</td>
</tr>
</tbody>
</table>

**Note:**

CPR certificate must be obtained prior to enrolling in the first Surgical Technology course and certification must be kept current throughout the Program.

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

Students successfully completing SUR 109 and SUR 110 are not required to take a microbiology course for the diploma option.

**Certificates**

**Surgical Technology Bridge Program - 5109093019**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>STN 100</td>
<td>Surgical Technology Fundamentals for Nurses</td>
<td>7</td>
</tr>
<tr>
<td>STN 101</td>
<td>Surgical Technology Lab for Nurses</td>
<td>1</td>
</tr>
<tr>
<td>STN 102</td>
<td>Surgical Technology Clinical for Nurses</td>
<td>6</td>
</tr>
<tr>
<td>STN 110</td>
<td>Surgical Technology Procedures for Nursing</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total Credit Hours** 18
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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>MAT 116</td>
<td>Technical Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>SMT 110</td>
<td>Principles of Surveying</td>
<td>3</td>
</tr>
<tr>
<td>SMT 130</td>
<td>Land Surveying Graphics</td>
<td>3</td>
</tr>
<tr>
<td>SMT 160</td>
<td>Construction Surveying</td>
<td>3</td>
</tr>
<tr>
<td>SMT 210</td>
<td>Advanced Surveying Measurement</td>
<td>3</td>
</tr>
<tr>
<td>SMT 220</td>
<td>Surveying Lab</td>
<td>3</td>
</tr>
<tr>
<td>SMT 230</td>
<td>Land Boundary Location</td>
<td>3</td>
</tr>
<tr>
<td>SMT 250</td>
<td>Mine Surveying</td>
<td>3</td>
</tr>
<tr>
<td>SMT 270</td>
<td>Professional Ethics and Conduct for Land Surveyors</td>
<td>3</td>
</tr>
<tr>
<td>SMT 290</td>
<td>Boundary Law</td>
<td>3</td>
</tr>
</tbody>
</table>

Technical Electives Approved by Program Coordinator: 12

Subtotal: 45

AAAS Total: 60

Diploma

Surveying Technician III - 1511024019

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>MAT 116</td>
<td>Technical Mathematics</td>
<td>3</td>
</tr>
</tbody>
</table>

Subtotal: 6

Required Technical Courses

- Computer/Digital Literacy: 3
- Principles of Surveying: 3
- Land Surveying Graphics: 3
- Construction Surveying: 3
- Advanced Surveying Measurement: 3
- Surveying Lab: 3
- Land Boundary Location: 3
- Mine Surveying: 3
- Professional Ethics and Conduct for Land Surveyors: 3
- Boundary Law: 3
- Technical Electives Approved by Program Coordinator: 9

Subtotal: 33

Diploma Total: 39

Certificate

Surveying Technician II - 1511023029

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMT 110</td>
<td>Principles of Surveying</td>
<td>3</td>
</tr>
<tr>
<td>SMT 130</td>
<td>Land Surveying Graphics</td>
<td>3</td>
</tr>
</tbody>
</table>

Technical Electives Approved by Program Coordinator: 3

Certificate Total: 12

Surveying Technician I - 1511023019

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMT 110</td>
<td>Principles of Surveying</td>
<td>3</td>
</tr>
<tr>
<td>SMT 130</td>
<td>Land Surveying Graphics</td>
<td>3</td>
</tr>
</tbody>
</table>

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

General Education Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>THA 101</td>
<td>Introduction to Theatre: Principles and Practice</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>Intro to Interpersonal Communication (OR)</td>
<td>(3)</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>(3)</td>
</tr>
</tbody>
</table>

Technical Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>THA 150</td>
<td>Fundamentals of Production</td>
<td>3</td>
</tr>
<tr>
<td>THA 250</td>
<td>Stage Electrics</td>
<td>3</td>
</tr>
<tr>
<td>THA 260</td>
<td>Stagewear</td>
<td>3</td>
</tr>
<tr>
<td>THA 141</td>
<td>Costuming and Make-up for the Stage</td>
<td>3</td>
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</table>

Technical Electives (Select one of the following)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 113</td>
<td>3-Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>ELT 110</td>
<td>Circuits I</td>
<td>5</td>
</tr>
<tr>
<td>DFT 102</td>
<td>Drafting Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>WLD 152</td>
<td>Basic-Welding B</td>
<td>5</td>
</tr>
<tr>
<td>CAR 126/127</td>
<td>Introduction to Construction/Intro to Construction Lab</td>
<td>3/1</td>
</tr>
<tr>
<td>THA 192</td>
<td>Production Practicum</td>
<td>1</td>
</tr>
</tbody>
</table>

Other courses as approved by the program coordinator

Total: 19-24

Telehealth Technician Associate

Telemedicine is the provision of health care over a distance. This occurs through live interactive (synchronous) and store and forward (asynchronous) telemedicine using high-speed communication links, videoconference equipment and other communication devices, medical peripheral devices such as electronic stethoscopes to facilitate secure connectivity between patients and providers.

Certificate

Telehealth Technician Associate - 5107073069

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HST 102</td>
<td>Health Care Delivery and Management</td>
<td>3</td>
</tr>
<tr>
<td>HST 103</td>
<td>Health Care Communications</td>
<td>2</td>
</tr>
</tbody>
</table>
### Veterinary Technology

The Veterinary Technology program will provide students with the skills and knowledge needed to work as a professional veterinary technician. Areas of study include anatomy, physiology, microbiology, clinical techniques, office and hospital procedures, client relations and communication, pharmacology, anesthesia, surgical and medical nursing, radiology and clinical pathology training. The Veterinary Technology program will provide students with “real world” clinical and lab experiences to develop the skills needed to become a valued professional in the field.

**Note:** Hours Exception (69-72 for the A.A.S.) approved by the KCTCS Board of Regents in June 2013.
photographic studios, multimedia shops, web design shops, television broadcasting stations, film and video production studios, department stores, corporations or non-profit agencies.

All technical courses must be completed with "C" (2.0) or greater to advance in Visual Communication programs.

**Associate in Applied Science**

**Communication Arts Technology - 5004067019**

(Offered at JFC)

**General Education Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 106</td>
<td>Renaissance Through Modern Art History</td>
<td>3</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 146</td>
<td>Contemporary College Mathematics OR</td>
<td>(3)</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra</td>
<td>(3)</td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Total General Education Requirements</strong></td>
<td><strong>15</strong></td>
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</table>

**Core Communication Art Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCC 150</td>
<td>Mac Basics OR any Computer/Digital Literacy equivalent*</td>
<td>3</td>
</tr>
<tr>
<td>VCC 100</td>
<td>Introduction to Visual Communication</td>
<td>3</td>
</tr>
<tr>
<td>ART 112</td>
<td>Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>VCA 132</td>
<td>Illustration for Advertising</td>
<td>3</td>
</tr>
<tr>
<td>VCA 170</td>
<td>Advertising Design I</td>
<td>3</td>
</tr>
<tr>
<td>VCA 171</td>
<td>Advertising Design II</td>
<td>3</td>
</tr>
<tr>
<td>VCA 160</td>
<td>Commercial Photography I</td>
<td>3</td>
</tr>
<tr>
<td>VCA 161</td>
<td>Commercial Photography II</td>
<td>3</td>
</tr>
<tr>
<td>VCC 166</td>
<td>Photoshop Basics</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
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<td>**24-27</td>
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**Total Core Communication Arts Courses & Gen Ed**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Advertising Design Track - 500406701</strong></td>
<td><strong>Offered at JFC</strong></td>
<td><strong>39-42</strong></td>
</tr>
<tr>
<td>VCA 106</td>
<td>Creative Typographic Design</td>
<td>3</td>
</tr>
<tr>
<td>VCM 115</td>
<td>2-D Animation</td>
<td>3</td>
</tr>
<tr>
<td>VCM 220</td>
<td>Webpage Design</td>
<td>3</td>
</tr>
<tr>
<td>VCA 270</td>
<td>Advertising Design III</td>
<td>4</td>
</tr>
<tr>
<td>VCA 271</td>
<td>Advertising Design IV</td>
<td>4</td>
</tr>
<tr>
<td>VCA 290</td>
<td>Folio Seminar</td>
<td>3</td>
</tr>
<tr>
<td>VCA 298</td>
<td>Practicum</td>
<td>4</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>**</td>
<td>**24</td>
</tr>
</tbody>
</table>

**Total Credit Hours for Advertising Design Track**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Commercial Photography Track - 500406702</strong></td>
<td><strong>Offered at JFC</strong></td>
<td><strong>63-66</strong></td>
</tr>
<tr>
<td>VCC 266</td>
<td>Advanced Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>VCM 115</td>
<td>2-D Animation</td>
<td>3</td>
</tr>
<tr>
<td>VCM 220</td>
<td>Webpage Design</td>
<td>3</td>
</tr>
<tr>
<td>VCA 260</td>
<td>Commercial Photography III</td>
<td>4</td>
</tr>
<tr>
<td>VCA 261</td>
<td>Commercial Photography IV</td>
<td>4</td>
</tr>
<tr>
<td>VCA 290</td>
<td>Folio Seminar</td>
<td>3</td>
</tr>
<tr>
<td>VCA 298</td>
<td>Practicum</td>
<td>4</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>**</td>
<td>**24</td>
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</tbody>
</table>

**Total Credit Hours for Commercial Photography Track**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Digital Filmmaking Track - 500406703</strong></td>
<td><strong>Offered at JFC</strong></td>
<td><strong>63-66</strong></td>
</tr>
<tr>
<td>ENG 207</td>
<td>Beginning Workshop in Imaginative Writing; Scriptwriting</td>
<td>3</td>
</tr>
<tr>
<td>MUS 120</td>
<td>Music Technology 1</td>
<td>3</td>
</tr>
</tbody>
</table>

**Webpage Design Track - 500406704**

(Offered at JFC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCC 205</td>
<td>Introduction to HTML OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 155</td>
<td>Web Page Development</td>
<td>(3)</td>
</tr>
<tr>
<td>VCM 220</td>
<td>Webpage Design</td>
<td>3</td>
</tr>
<tr>
<td>VCM 115</td>
<td>2D Animation</td>
<td>3</td>
</tr>
<tr>
<td>VCM 230</td>
<td>Advanced Webpage Design</td>
<td>3</td>
</tr>
<tr>
<td>CIT 140</td>
<td>JavaScript I</td>
<td>3</td>
</tr>
<tr>
<td>VCA 290</td>
<td>Folio Seminar</td>
<td>3</td>
</tr>
<tr>
<td>VCA 298</td>
<td>Practicum</td>
<td>4</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>**</td>
<td>**25</td>
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</tbody>
</table>

**Total Credit Hours for Webpage Design Track**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Multimedia Certificate in Communication Arts - 5004063039</strong></td>
<td><strong>Offered at JFC</strong></td>
<td><strong>18-21</strong></td>
</tr>
<tr>
<td>VCC 150</td>
<td>Mac Basics OR any Computer/Digital Literacy equivalent*</td>
<td>3</td>
</tr>
<tr>
<td>VCA 170</td>
<td>Advertising Design I</td>
<td>3</td>
</tr>
<tr>
<td>VCA 160</td>
<td>Commercial Photography I</td>
<td>3</td>
</tr>
<tr>
<td>VCA 171</td>
<td>Advertising Design II</td>
<td>3</td>
</tr>
<tr>
<td>VCM 115</td>
<td>2-D Animation</td>
<td>3</td>
</tr>
<tr>
<td>VCC 166</td>
<td>Photoshop Basics</td>
<td>3</td>
</tr>
<tr>
<td>VCM 220</td>
<td>Webpage Design</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits for Multimedia Certificate</strong></td>
<td><strong>in Communication Arts</strong></td>
<td><strong>18-21</strong></td>
</tr>
</tbody>
</table>

**Visual Communication: Design & Technology**

Design & Technology emphasizes creative problem solving and insight into the mix of art, design and technical competence. This program includes a Graphic Design track, a Mixed Media Design track, and a Production Design track, with a core of courses common to all. The core includes general education components essential to a collegiate education and technical courses giving students an introduction to drawing, design concepts, and computer graphics. In addition to core courses, students will take specialty courses for their selected option. Students may also choose to receive a certificate in digital photography.

The Graphic Design option emphasizes several aspects of graphic design and focuses on the development of creativity and software skills necessary to be competitive in the field.

The Mixed Media Design option provides students with a mix of any courses within the visual communication program or approved electives that serves the interests and skills of the student.
The Production Design option provides students training in the operation of various print production and graphic production equipment. Students will learn skills to design and produce a wide variety of printed materials, promotional items, and signage.

Prospective employment opportunities are in advertising agencies, graphic design studios, news media, printing and signage companies, department stores, and other creative services departments and businesses, including web design and video production studios.

All technical courses must be completed with "C" (2.0) or greater to advance in all Visual Communication programs.

**Associate in Applied Science**

**Design & Technology – 5004097019** *(Offered at BSC)*

**General Education Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 110</td>
<td>3</td>
</tr>
<tr>
<td>Higher Level</td>
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**Required Technical Core:**

- Digital Literacy .................................................. 0-3
- VCC 100 Introduction to Visual Communication 3
- VCC 106 Typography ............................................... 3
- VCA 105 Drawing Concepts OR ................................... 3
- ART 110 Drawing I .................................................. 3
- VCA 108 Color Theory .............................................. 3
- VCC 110 Design Concepts ......................................... 3
- VCC 125 Computer Graphics I .................................. 3
- VCA 280 Professional Portfolio Development .................... 3
- VCC 297 Internship OR ............................................ 3
- VCC 298 Practicum OR ............................................. 3
- COE 199 Cooperative Education ................................... 3

**Subtotal** 24-27

**Graphic Design Track – 500409701** *(Offered at BSC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>VCC 260</td>
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<tr>
<td>VCC 245</td>
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<td>VCC 255</td>
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**Mixed Media Design Track – 500409705** *(Offered at BSC)*

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
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**Production Design Track – 500409703** *(Offered at BSC)*

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>VCC 214</td>
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<td>VCC 216</td>
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<tr>
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</table>

**Diplomas**

**Graphic Design - 5004094059** *(Offered at BSC)*

**Required General Education**

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

**Subtotal** 6

**Required Technical Core:**

- Digital Literacy .................................................. 0-3
- VCC 100 Introduction to Visual Communication 3
- VCC 106 Typography ............................................... 3
- VCA 105 Drawing Concepts OR ................................... 3
- ART 110 Drawing I .................................................. 3
- VCA 108 Color Theory .............................................. 3
- VCC 110 Design Concepts ......................................... 3
- VCC 125 Computer Graphics I .................................. 3
- VCA 280 Professional Portfolio Development .................... 3
- VCC 297 Internship OR ............................................ 3
- VCC 298 Practicum OR ............................................. 3
- COE 199 Cooperative Education ................................... 3

**Subtotal** 24-27

**Total Credits for Graphic Design Track Diploma 54-57**

**Mixed Media Design Track – 500409402** *(Offered at BSC)*

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<tbody>
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**Production Design Track – 500409403** *(Offered at BSC)*

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<th>Course</th>
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<td>VCC 216</td>
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<td>VCC 218</td>
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*Approved Technical Electives include any VCA, VCC, or VCM course and the following IMD courses: IMD 133, IMD 180, IMD 230, IMD 232, IMD 240, IMD 250, IMD 255, and IMD 258.
Visual Communication: Multimedia

The Visual Communication: Multimedia program provides students the necessary skills to prepare and produce a wide variety of multimedia presentations. This program includes tracks in Animation, Web Design, Digital Design, Video Production, and Multimedia. The core includes general education components essential to a collegiate education and technical courses giving students an introduction to typography, design concepts, color theory, and computer graphics. In addition to core courses, students will take specialty courses for their selected track.

Prospective employment opportunities are in advertising agencies, graphic design studios, news media, printing and signage companies, department stores, and other creative services departments and businesses, including web design and video production studios.

All technical courses must be completed with "C" (2.0) or greater to advance in all Visual Communication programs.

Certificates

**Design Assistant – 5004093019**
(Offered at BSC)

<table>
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<th>Course Title</th>
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<td>VCC 106</td>
<td>Typography</td>
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<td>VCA 105</td>
<td>Drawing Concepts OR</td>
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<tr>
<td>ART 110</td>
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<tr>
<td>VCA 108</td>
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<td>VCC 110</td>
<td>Design Concepts</td>
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<td>VCC 125</td>
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Total Credits for Design Assistant Certificate 18

**Digital Photography – 5004093069**
(Offered at BSC, SMC)

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<td>VCA 120</td>
<td>Digital Photography I</td>
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<td>VCC 166</td>
<td>Photoshop Basics OR</td>
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<td>VCA 131</td>
<td>Digital Photography II OR</td>
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Total Credits for Digital Photography Certificate 12

**Mixed Media Design Assistant – 5004093099**
(Offered at BSC)

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Total Credits for Mixed Media Design Assistant Certificate 18

**Production Design Assistant – 5004093109**
(Offered at BSC, WKC)

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<td>VCC 125</td>
<td>Computer Graphics I</td>
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<tr>
<td>VCC 214</td>
<td>Production Design I OR</td>
<td>3</td>
</tr>
<tr>
<td>VCC 216</td>
<td>Production Design II OR</td>
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<tr>
<td>VCC 218</td>
<td>Production Design III OR</td>
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Total Credits for Production Design Assistant Certificate 12

*Approved Technical Electives include any VCA, VCC, or VCM courses, and the following IMD courses: IMD 133, IMD 180, IMD 230, IMD 232, IMD 240, IMD 250, IMD 255, and IMD 258.

Associates in Applied Science

**Multimedia – 1003047019**
(Offered at HZC, SMC, WKC)

**General Education Requirements:**
- Quantitative Reasoning ........................................ 3
- Natural Sciences .................................................. 3
- Social/Behavioral Sciences ..................................... 3
- Heritage/Humanities ............................................. 3
- ENG 101 Writing I ................................................. 3
- Total Credits 15

**Technical Core**
- VCC 100 Introduction to Visual Communication .......... 3
- VCC 106 Typography ................................................. 3
- VCC 108 Color Theory ............................................... 3
- VCC 110 Design Concepts ......................................... 3
- VCC 125 Computer Graphics I .................................... 3
- VCC 150 Mac Basics or ............................................. 3
- Digital Literacy course ............................................ 3
- VCC 166 Photoshop Basics ......................................... 3
- VCC 200 Computer Illustration ................................. 3
- VCC 270 Acrobat Basics ............................................ 3
- VCA 280 Professional Portfolio Development .............. 3
- VCC 297 Internship OR ............................................. 3
- VCC 298 Practicum OR ............................................... (3)
- VCC 199 Cooperative Education ................................ 3
- Total Credits 33

**Animation Track – 100304701**
(Offered at HZC, WKC)

- VCC 255 Emerging Media Design ................................. 3
- VCM 115 2-D Animation ............................................. 3
- VCM 210 3-D Animation ............................................. 3
- VCM 215 After Effects ............................................. 3
- VCM 225 Advanced 3-D Animation ............................... 3
- Approved Technical Electives .................................... 3
- Total Credits 18

**Web Design Track – 100304702**
(Offered at HZC, WKC)

- VCC 255 Emerging Media Design ................................. 3
- VCM 115 2-D Animation ............................................. 3
- VCM 220 Webpage Design ........................................... 3
- VCM 230 Advanced Webpage Design ............................. 3
- Approved Technical Electives .................................... 3
- Total Credits 18

**Digital Design Track – 100304703**
(Offered at WKC)

- VCC 210 Advanced Computer Illustration ..................... 3
- VCC 220 InDesign Basics ............................................ 3
- VCC 266 Advanced Photoshop ..................................... 3
- Approved Technical Electives .................................... 9
- Total Credits 18

Total Credits for AAS: Multimedia – Animation Track 66

Total Credits for AAS: Multimedia – Web Design Track 66

Total Credits for AAS: Multimedia – Digital Design Track 66
### Video Production Track - 100304705
(Offered at HZC, WKC)

<table>
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<tbody>
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<tr>
<td>VCM 115 2-D Animation</td>
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<td>VCM 125 Foundations of Video Production</td>
<td>3</td>
</tr>
<tr>
<td>VCM 140 Digital Video</td>
<td>3</td>
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<tr>
<td>VCM 215 After Effects</td>
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<td>VCM 240 Advanced Digital Video</td>
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**Total Credits for AAS: Multimedia - Video Production Track** | 66

### Multimedia Track – 100304706
(Offered at HZC, WKC)

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<td>VCM 115 2-D Animation</td>
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<td>VCM 140 Digital Video</td>
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</tr>
<tr>
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**Total Credits for AAS: Multimedia – Multimedia Track** | 66

### Diploma
**Multimedia - 1003044019**
(Offered at SMC, WKC)

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<td>Humanities/Heritage</td>
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<td>Quantitative Reasoning OR</td>
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<td>Natural Sciences OR</td>
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<td>Social/Behavioral Sciences</td>
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<td>VCA 108 Color Theory</td>
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<td>VCC 110 Design Concepts</td>
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<tr>
<td>VCC 125 Introduction to Computer Graphics</td>
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<tr>
<td>VCC 150 Mac Basics OR</td>
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<td>Digital Literacy course</td>
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<td>VCC 166 Photoshop Basics</td>
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<td>VCC 200 Computer Illustration</td>
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<tr>
<td>VCC 270 Acrobat Basics</td>
<td>3</td>
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<td>VCA 280 Professional Portfolio Development</td>
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<tr>
<td>VCC 297 Internship OR</td>
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<tr>
<td>VCC 298 Practicum</td>
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<td>COE 199 Cooperative Education OR</td>
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**Total Credits for Multimedia Track** | 57

### Web Design Track - 100304402
(Offered at WKC)

<table>
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<tbody>
<tr>
<td>VCC 255 Emerging Media Design</td>
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<tr>
<td>VCM 115 2-D Animation</td>
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**Total for Web Design Track** | 57

### Digital Design Track - 100304404
(Offered at WKC)

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<tbody>
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<td>VCM 115 2-D Animation</td>
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<td>VCM 125 Foundations of Video Production</td>
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<td>VCM 140 Digital Video</td>
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<td>VCM 215 After Effects</td>
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<td>Advanced Digital Video</td>
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**Total for Digital Design Diploma** | 57

### Video Production Track - 100304406
(Offered at WKC)

<table>
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<th>Course</th>
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<td>VCC 266 Advanced Photoshop</td>
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<td>VCC 255 Emerging Media Design</td>
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<td>VCC 210 Advanced Computer Illustration</td>
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<td>VCM 115 2-D Animation</td>
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<td>VCM 140 Digital Video</td>
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**_total for Audio/Video Track** | 57

### Multimedia Track - 100304401
(Offered at SMC, WKC)

<table>
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<tr>
<th>Course</th>
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<tr>
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<td>VCM 140 Digital Video</td>
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**Total Credits for Multimedia Track** | 57

### Certificates

#### Animation - 1003043029
(Offered at JFC, SMC)

<table>
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<td>VCC 166 Photoshop Basics</td>
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<td>VCC 210 Advanced Digital Video</td>
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<td><strong>Total</strong></td>
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</table>
### 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

<table>
<thead>
<tr>
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<th>Course Title</th>
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<td>Introduction to Visual Communication</td>
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<td>VCC 110</td>
<td>Design Concepts</td>
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<td>VCC 106</td>
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<td>VCC 108</td>
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<td>VCC 150</td>
<td>Mac Basics OR</td>
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<tr>
<td>VCC 166</td>
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<td>VCC 200</td>
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<td>VCM 115</td>
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#### Digital Design - 1003043059

*(Offered at SMC, WKC)*

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<td>VCC 166</td>
<td>Photoshop Basics</td>
<td>3</td>
</tr>
<tr>
<td>VCC 200</td>
<td>Computer Illustration</td>
<td>3</td>
</tr>
<tr>
<td>VCM 115</td>
<td>2-D Animation</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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#### Video Production - 1003043069

*(Offered at HZC, WKC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>VCC 100</td>
<td>Introduction to Visual Communication</td>
<td>3</td>
</tr>
<tr>
<td>VCC 110</td>
<td>Design Concepts</td>
<td>3</td>
</tr>
<tr>
<td>VCC 150</td>
<td>Mac Basics OR</td>
<td>3</td>
</tr>
<tr>
<td>VCC 166</td>
<td>Photoshop Basics</td>
<td>3</td>
</tr>
<tr>
<td>VCM 115</td>
<td>2-D Animation</td>
<td>3</td>
</tr>
<tr>
<td>VCM 125</td>
<td>Foundations of Video Production</td>
<td>3</td>
</tr>
<tr>
<td>VCM 140</td>
<td>Digital Video</td>
<td>3</td>
</tr>
<tr>
<td>VCM 215</td>
<td>After Effects</td>
<td>3</td>
</tr>
<tr>
<td>VCM 240</td>
<td>Advanced Digital Video</td>
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<tr>
<td><strong>Total</strong></td>
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#### Multimedia - 1003043019

*(Offered at HZC, JFC, WKC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>VCA 108</td>
<td>Color Theory</td>
<td>3</td>
</tr>
<tr>
<td>VCC 100</td>
<td>Introduction to Visual Communication</td>
<td>3</td>
</tr>
<tr>
<td>VCC 110</td>
<td>Design Concepts</td>
<td>3</td>
</tr>
<tr>
<td>VCC 125</td>
<td>Introduction to Computer Graphics</td>
<td>3</td>
</tr>
<tr>
<td>VCC 150</td>
<td>Mac Basics OR</td>
<td>3</td>
</tr>
<tr>
<td>VCC 166</td>
<td>Photoshop Basics</td>
<td>3</td>
</tr>
<tr>
<td>VCC 200</td>
<td>Computer Illustration</td>
<td>3</td>
</tr>
<tr>
<td>VCM 115</td>
<td>2-D Animation</td>
<td>3</td>
</tr>
<tr>
<td>VCM 140</td>
<td>Digital Video</td>
<td>3</td>
</tr>
<tr>
<td>VCM 220</td>
<td>Webpage Design</td>
<td>3</td>
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#### Technical or Support Courses

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<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>VCA 108</td>
<td>Digital Color Theory</td>
<td>3</td>
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<tr>
<td>VCA 120</td>
<td>Digital Photography</td>
<td>3</td>
</tr>
<tr>
<td>VCC 100</td>
<td>Introduction to Visual Communication</td>
<td>3</td>
</tr>
<tr>
<td>VCC 105</td>
<td>Fundamentals of Typography</td>
<td>3</td>
</tr>
<tr>
<td>VCC 166</td>
<td>Photoshop Basics</td>
<td>3</td>
</tr>
<tr>
<td>VCC 200</td>
<td>Computer Illustration</td>
<td>3</td>
</tr>
</tbody>
</table>
### Visual Communication: Visual Arts

Students desiring certificates in two-dimensional arts (such as painting or photography), or three-dimensional arts (such as sculpture or ceramics), may select this avenue and/or may participate in the full degree concurrently. The certificates are designed to meet the needs of the many non-traditional and part-time students and artisans of Kentucky. The certificate option will also help introduce the program to students who are not immediately willing to commit to a degree program but whom still desire professional training in the visual arts.

#### Certificates

**2-Dimensional Studies - 5007063019 (Offered at JFC)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 110 Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 112 2-Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 105 Ancient through Medieval Art History OR</td>
<td>3</td>
</tr>
<tr>
<td>ART 106 Renaissance through Modern Art History OR Approved Art History Course 2-Dimensional Art Electives</td>
<td>9</td>
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<tr>
<td><strong>Total 2-Dimensional Studies Certificate</strong></td>
<td><strong>18</strong></td>
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**3-Dimensional Studies - 5007063029 (Offered at JFC)**

<table>
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<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ART 110 Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 113 3-Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 105 Ancient through Medieval Art History OR</td>
<td>3</td>
</tr>
<tr>
<td>ART 106 Renaissance through Modern Art History OR Approved Art History Course 3-Dimensional Art Electives</td>
<td>9</td>
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<tr>
<td><strong>Total 3-Dimensional Studies Certificate</strong></td>
<td><strong>18</strong></td>
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</tbody>
</table>

---

### Volumetric Medical Imaging

The Volumetric Medical Imaging (VMI) Certificate is designed for students who are certified radiologic technologists. Students will learn to identify anatomical features in cross section and volume, reconstruct volumetric data from 2D radiological data, recognize pathologic anatomy and manipulate volumes for physicians to review. Graduates will be qualified to seek employment in radiology departments of hospitals or with private companies who contract this service. Academic Program Coordinator permission is required to enter the certificate program. Prerequisites: Basic computer literacy, such as CIS 100 or equivalent, BIO 137, 139.

#### Certificate

**Volumetric Medical Imaging - 5109113019**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIO 137 Human Anatomy and Physiology I*</td>
<td>4</td>
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<tr>
<td>BIO 139 Human Anatomy and Physiology II*</td>
<td>4</td>
</tr>
<tr>
<td>VMI 200 Sectional Anatomy &amp; Pathology I</td>
<td>4</td>
</tr>
<tr>
<td>VMI 210 Volumetric Medical Imaging I</td>
<td>4</td>
</tr>
<tr>
<td>VMI 211 Volumetric Medical Imaging II</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
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</tbody>
</table>

*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, OWC, SKY)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENG 101 Writing I</td>
<td>3</td>
</tr>
<tr>
<td>MAT 110 Applied Mathematics OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 116 Technical Mathematics OR</td>
<td>(3)</td>
</tr>
<tr>
<td>MAT 146 Contemporary College Mathematics OR</td>
<td>(3)</td>
</tr>
<tr>
<td>MA 109 College Algebra OR</td>
<td>(3)</td>
</tr>
<tr>
<td>MA 109 College Algebra</td>
<td>(3)</td>
</tr>
<tr>
<td>MA 109 College Algebra</td>
<td>(3)</td>
</tr>
<tr>
<td>MA 109 College Algebra</td>
<td>(3)</td>
</tr>
<tr>
<td>PHY 151 Introductory Physics I AND</td>
<td>(3)</td>
</tr>
<tr>
<td>PHY 161 Introductory Physics Lab I</td>
<td>(1)</td>
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<tr>
<td>PSY 110 General Psychology OR</td>
<td>3</td>
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<tr>
<td>SOC 101 Introduction to Sociology</td>
<td>(3)</td>
</tr>
<tr>
<td>COM 252 Introduction to Interpersonal Communication OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 181 Basic Public Speaking</td>
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<tr>
<td><strong>Recommended courses of:</strong></td>
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<td><strong>General Education Total Credits</strong></td>
<td><strong>18-19</strong></td>
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**Required**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>WLD 100</td>
<td>Oxy-Fuel Systems OR</td>
<td>2</td>
</tr>
<tr>
<td>WLD 110</td>
<td>Cutting Processes</td>
<td>(2)</td>
</tr>
<tr>
<td>WLD 111</td>
<td>Cutting Processes Lab</td>
<td>(3)</td>
</tr>
<tr>
<td>WLD 120</td>
<td>Shielded Metal Arc Welding (SMAW)</td>
<td>(3)</td>
</tr>
<tr>
<td>WLD 121</td>
<td>Shielded Metal Arc Welding (SMAW) Fillet Lab</td>
<td>(3)</td>
</tr>
<tr>
<td>WLD 123</td>
<td>Shielded Metal Arc Welding (SMAW) Groove with Backing Lab</td>
<td>(3)</td>
</tr>
<tr>
<td>WLD 225</td>
<td>Shielded Metal Arc Welding (SMAW) Open Groove Lab</td>
<td>(3)</td>
</tr>
<tr>
<td>WLD 130</td>
<td>Gas Tungsten Arc Welding (GTAW)</td>
<td>2</td>
</tr>
<tr>
<td>WLD 131</td>
<td>Gas Tungsten Arc Welding (GTAW) Fillet Lab</td>
<td>(3)</td>
</tr>
<tr>
<td>WLD 133</td>
<td>Gas Tungsten Arc Welding (GTAW) Groove Lab</td>
<td>(3)</td>
</tr>
<tr>
<td>WLD 140</td>
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<td>(2)</td>
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<tr>
<td>WLD 141</td>
<td>Gas Metal Arc Welding (GMW) Fillet Lab</td>
<td>(3)</td>
</tr>
<tr>
<td>WLD 143</td>
<td>Gas Metal Arc Welding (GMW) Groove Lab</td>
<td>(3)</td>
</tr>
<tr>
<td>WLD 170</td>
<td>Blueprint Reading for Welding</td>
<td>2</td>
</tr>
<tr>
<td>WLD 171</td>
<td>Blueprint Reading for Welding Lab</td>
<td>(3)</td>
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<tr>
<td>WLD 220</td>
<td>Welding Certification</td>
<td>2</td>
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<tr>
<td>WLD 221</td>
<td>Welding Certification Lab</td>
<td>(3)</td>
</tr>
<tr>
<td>WLD 298</td>
<td>Welding Practicum OR</td>
<td>(1-4)</td>
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<tr>
<td>WLD 299</td>
<td>Cooperative Work Experience</td>
<td>(1-4)</td>
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**Total Credits** 42 - 49

**Certificates**

**Welder Helper - 4805083129**

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

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>WLD 151</td>
<td>Basic Welding A OR</td>
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</tr>
<tr>
<td>WLD 120</td>
<td>Shielded Metal Arc Welding (SMAW) AND</td>
<td>(2)</td>
</tr>
<tr>
<td>WLD 131</td>
<td>Gas Tungsten Arc Welding (GTAW) AND</td>
<td>(3)</td>
</tr>
<tr>
<td>WLD 130</td>
<td>Gas Tungsten Arc Welding (GTAW) Fillet Lab OR</td>
<td>(3)</td>
</tr>
<tr>
<td>WLD 140</td>
<td>Gas Metal Arc Welding (GMW) AND</td>
<td>(2)</td>
</tr>
<tr>
<td>WLD 141</td>
<td>Gas Metal Arc Welding (GMW) Fillet Lab OR</td>
<td>(3)</td>
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<tr>
<td>WLD 152</td>
<td>Basic Welding B OR</td>
<td>(5)</td>
</tr>
<tr>
<td>IMT 100</td>
<td>Welding for Maintenance AND</td>
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<td>IMT 101</td>
<td>Welding for Maintenance Lab</td>
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</table>

**Total Credits** 2-5

**Gas Welder - 4805083039**

(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, 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>WLD 100</td>
<td>Oxy-Fuel Systems OR</td>
<td>(2)</td>
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<tr>
<td>WLD 110</td>
<td>Oxy-Fuel Systems Lab</td>
<td>(2)</td>
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**Total Credits** 4

**ARC Cutter - 4805083099**

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

<table>
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<th>Course Title</th>
<th>Credits</th>
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<td>WLD 110</td>
<td>Cutting Processes</td>
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<td>WLD 111</td>
<td>Cutting Processes Lab</td>
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**Total Credits** 5

**Tack Welder - 4805083119**

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
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<td>Blueprint Reading for Welding</td>
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<td>WLD 171</td>
<td>Blueprint Reading for Welding Lab</td>
<td>(3)</td>
</tr>
<tr>
<td>WLD 151</td>
<td>Basic Welding A OR</td>
<td>(2)</td>
</tr>
<tr>
<td>WLD 120</td>
<td>Shielded Metal Arc Welding (SMAW) AND</td>
<td>(2)</td>
</tr>
<tr>
<td>WLD 131</td>
<td>Gas Tungsten Arc Welding (GTAW) AND</td>
<td>(3)</td>
</tr>
<tr>
<td>WLD 130</td>
<td>Gas Tungsten Arc Welding (GTAW) Fillet Lab OR</td>
<td>(3)</td>
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</table>

**Total Credits** 1-4

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

**Diploma**

**Combination Welder - 4805084029**

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

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tbody>
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<td>ENG 101</td>
<td>Writing I OR</td>
<td>3</td>
</tr>
<tr>
<td>TEC 200</td>
<td>Technical Communications</td>
<td>(3)</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics OR</td>
<td>3</td>
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<tr>
<td>MAT 116</td>
<td>Technical Mathematics OR</td>
<td>(3)</td>
</tr>
<tr>
<td>MAT 146</td>
<td>Contemporary College Mathematics OR</td>
<td>(3)</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra OR</td>
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<tr>
<td>MA 109</td>
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**General Education Total Credits** 6

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

**Required**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>WLD 100</td>
<td>Oxy-Fuel Systems OR</td>
<td>2</td>
</tr>
<tr>
<td>WLD 110</td>
<td>Cutting Processes</td>
<td>(2)</td>
</tr>
<tr>
<td>WLD 111</td>
<td>Cutting Processes Lab</td>
<td>(3)</td>
</tr>
<tr>
<td>WLD 120</td>
<td>Shielded Metal Arc Welding (SMAW)</td>
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<tr>
<td>WLD 121</td>
<td>Shielded Metal Arc Welding (SMAW) Fillet Lab</td>
<td>(3)</td>
</tr>
<tr>
<td>WLD 123</td>
<td>Shielded Metal Arc Welding (SMAW) Groove with Backing Lab</td>
<td>(3)</td>
</tr>
<tr>
<td>WLD 225</td>
<td>Shielded Metal Arc Welding (SMAW) Open Groove Lab</td>
<td>(3)</td>
</tr>
<tr>
<td>WLD 130</td>
<td>Gas Tungsten Arc Welding (GTAW)</td>
<td>2</td>
</tr>
<tr>
<td>WLD 131</td>
<td>Gas Tungsten Arc Welding (GTAW) Fillet Lab</td>
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<tr>
<td>WLD 133</td>
<td>Gas Tungsten Arc Welding (GTAW) Groove Lab</td>
<td>(3)</td>
</tr>
<tr>
<td>WLD 140</td>
<td>Gas Metal Arc Welding (GMW)</td>
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</tr>
<tr>
<td>WLD 141</td>
<td>Gas Metal Arc Welding (GMW) Fillet Lab</td>
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<tr>
<td>WLD 143</td>
<td>Gas Metal Arc Welding (GMW) Groove Lab</td>
<td>(3)</td>
</tr>
<tr>
<td>WLD 170</td>
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<td>2</td>
</tr>
<tr>
<td>WLD 171</td>
<td>Blueprint Reading for Welding Lab</td>
<td>(3)</td>
</tr>
<tr>
<td>WLD 220</td>
<td>Welding Certification</td>
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<tr>
<td>WLD 221</td>
<td>Welding Certification Lab</td>
<td>(3)</td>
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</table>

**Total Credits** 60 – 68

**Technical Electives:**

- WLD 299 Cooperative Work Experience ................. (1-4)
- Technical Elective ........................................ 2-3

**Subtotal** 41-49

**Total Credits** 47-55

*This list is not all inclusive. Other courses may be approved at the discretion of the program coordinator.*
WLD 140 Gas Metal Arc Welding (GMAW) AND ................................(2)
WLD 141 Gas Metal Arc Welding (GMAW) Fillet Lab OR ..................(3)
WLD 152 Basic Welding Lab ..................................................(5)
Total Credits 7-10

Production Line Welder - 4805083059
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
WLD 130 Gas Tungsten Arc Welding (GTAW) ..............................2
WLD 131 Gas Tungsten Arc Welding (GTAW) Fillet Lab ....................3
WLD 140 Gas Metal Arc Welding (GMAW) .................................2
WLD 141 Gas Metal Arc Welding (GMAW) Fillet Lab .......................3
WLD 100 Oxy-Fuel Systems OR ................................................(2)
WLD 110 Cutting Processes .......................................................(2)
WLD 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) Groove with Backing Lab OR .................................................................3
WLD 225 Shielded Metal Arc Welding (SMAW) Open Groove Lab ....(3)
WLD 130 Gas Tungsten Arc Welding (GTAW) ..............................2
WLD 131 Gas Tungsten Arc Welding (GTAW) Fillet Lab ....................3
WLD 133 Gas Tungsten Arc Welding (GTAW) Groove Lab ...............(3)
WLD 140 Gas Metal Arc Welding (GMAW) .................................2
WLD 141 Gas Metal Arc Welding (GMAW) Fillet Lab .......................3
WLD 143 Gas Metal Arc Welding (GMAW) Fillet Groove Lab ..........(3)
WLD 170 Blueprint Reading for Welding ......................................2
WLD 171 Blueprint Reading for Welding Lab ................................3
Total Credits 19-20

ARC Welder - 4805083029
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
WLD 100 Oxy-Fuel Systems OR ................................................2
WLD 110 Cutting Processes .......................................................(2)
WLD 101 Oxy-Fuel Systems Lab OR ............................................2
WLD 111 Cutting Processes Lab ..................................................(3)
WLD 120 Shielded Metal Arc Welding (SMAW) ..............................2
WLD 121 Shielded Metal Arc Welding (SMAW) Fillet Lab OR ............3
WLD 123 Shielded Metal Arc Welding (SMAW) Groove with Backing Lab OR .................................................................3
WLD 225 Shielded Metal Arc Welding (SMAW) Open Groove Lab ....(3)
WLD 130 Gas Tungsten Arc Welding (GTAW) ..............................2
WLD 131 Gas Tungsten Arc Welding (GTAW) Fillet Lab ....................3
WLD 133 Gas Tungsten Arc Welding (GTAW) Groove Lab ...............(3)
WLD 140 Gas Metal Arc Welding (GMAW) .................................2
WLD 141 Gas Metal Arc Welding (GMAW) Fillet Lab .......................3
WLD 143 Gas Metal Arc Welding (GMAW) Fillet Groove Lab ..........(3)
WLD 170 Blueprint Reading for Welding ......................................2
WLD 171 Blueprint Reading for Welding Lab ................................3
Total Credits 24-25

Pipeline Welder - 4805083109
(Offered at ASC, BLC, BSC, ELC, HEC, HPC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
WLD 100 Oxy-Fuel Systems OR ................................................2
WLD 110 Cutting Processes .......................................................(2)
WLD 101 Oxy-Fuel Systems Lab OR ............................................2
WLD 111 Cutting Processes Lab ..................................................(3)
WLD 120 Shielded Metal Arc Welding (SMAW) ..............................2
WLD 130 Gas Tungsten Arc Welding (GTAW) ..............................2
WLD 140 Gas Metal Arc Welding (GMAW) .................................2
WLD 170 Blueprint Reading for Welding ......................................2
WLD 220 Welding Certification ..................................................2
WLD 221 Welding Certification Lab ............................................3
WLD 227 Shielded Metal Arc Welding (SMAW) Pipe Lab A ..............3
WLD 235 Gas Tungsten Arc Welding (GTAW) Pipe Lab A ...............3
WLD 245 Gas Metal Arc Welding (GMAW) Pipe Lab A ....................3
Recommended Electives:
WLD 229 Shielded Metal Arc Welding (SMAW) Pipe Lab B ..............(3)
WLD 237 Gas Tungsten Arc Welding (GTAW) Pipe Lab B ................(3)
WLD 247 Gas Metal Arc Welding (GMAW) Pipe Lab B ....................(3)
WLD 253 Pipe Fitting and Template Development Lab ....................1
Total 29-40

AWS National Skills Standards Level I - 4805083089
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
WLD 100 Oxy-Fuel Systems OR ................................................2
WLD 110 Cutting Processes .......................................................(2)
WLD 101 Oxy-Fuel Systems Lab OR ............................................2
WLD 111 Cutting Processes Lab ..................................................(3)
WLD 120 Shielded Metal Arc Welding (SMAW) ..............................2
WLD 121 Shielded Metal Arc Welding (SMAW) Fillet Lab ..................3
WLD 123 Shielded Metal Arc Welding (SMAW) Groove with Backing Lab OR .................................................................3
WLD 225 Shielded Metal Arc Welding (SMAW) Open Groove Lab ....(3)
WLD 130 Gas Tungsten Arc Welding (GTAW) ..............................2
WLD 131 Gas Tungsten Arc Welding (GTAW) Fillet Lab ....................3
WLD 133 Gas Tungsten Arc Welding (GTAW) Groove Lab ...............(3)
WLD 140 Gas Metal Arc Welding (GMAW) .................................2
WLD 141 Gas Metal Arc Welding (GMAW) Fillet Lab .......................3
WLD 143 Gas Metal Arc Welding (GMAW) Fillet Groove Lab ..........(3)
WLD 170 Blueprint Reading for Welding ......................................2
WLD 171 Blueprint Reading for Welding Lab ................................3
Total Credits 33-34

Shielded Metal Arc Welding - 4805083139
(Offered at ASC, BLC, BSC, ELC, HEC, HPC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
WLD 120 Shielded Metal Arc Welding (SMAW) ..............................2
WLD 121 Shielded Metal Arc Welding (SMAW) Fillet Lab ..................3
WLD 123 Shielded Metal Arc Welding (SMAW) Groove with Backing Lab OR .................................................................3
WLD 225 Shielded Metal Arc Welding (SMAW) Open Groove Lab ....(3)
WLD 170 Blueprint Reading for Welding ......................................2
WLD 171 Blueprint Reading for Welding Lab ................................3
WLD 100 Oxy-Fuel Systems OR ................................................2
WLD 110 Cutting Process .........................................................(2)
WLD 101 Oxy-Fuel Systems Lab OR ............................................2
WLD 111 Cutting Processes Lab ..................................................(3)
Total Credits 17-18

Gas Metal Arc Welding - 4805083149
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
WLD 140 Gas Metal Arc Welding (GMAW) .....................................2
WLD 141 Gas Metal Arc Welding (GMAW) Fillet Lab .......................3
WLD 143 Gas Metal Arc Welding (GMAW) Groove Lab OR ............3
WLD 245 Gas Metal Arc Welding (GMAW) Pipe Lab A OR ..............(3)
WLD 147 Flux Cored Arc Welding (FCAW) Lab ............................(1)
WLD 170 Blueprint Reading for Welding ......................................2
WLD 171 Blueprint Reading for Welding Lab ................................3
WLD 100 Oxy-Fuel Systems OR ................................................2
WLD 111 Cutting Processes Lab ..................................................(3)
Total Credits 15-18

Gas Tungsten Arc Welding - 4805083159
(Offered at ASC, BLC, BSC, GTW, HEC, HPC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
WLD 130 Gas Tungsten Arc Welding (GTAW) ...............................2
WLD 131 Gas Tungsten Arc Welding (GTAW) Fillet Lab .................3
WLD 133 Gas Tungsten Arc Welding (GTAW) Groove Lab OR ........3
WLD 235 Gas Tungsten Arc Welding (GTAW) Pipe Lab A ...............3
WLD 170 Blueprint Reading for Welding ......................................2
WLD 171 Blueprint Reading for Welding Lab ................................3
WLD 100 Oxy-Fuel Systems OR ................................................2
WLD 110 Cutting Process .........................................................(2)
WLD 101 Oxy-Fuel Systems Lab OR ............................................2
WLD 111 Cutting Processes Lab ..................................................(3)
Total Credits 17-18

213
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

WGS 200  Introduction to Women’s and Gender Studies in the Social Sciences OR ..................................................3
WGS 201  Introduction to Women’s and Gender Studies in the Arts and Humanities .................................................3
HIS 266  History of American Women to 1920 OR ..................................................3
HIS 267  History of American Women from 1920 OR ..................................................3
HIS 265  History of Women in America ..................................................3
WGS 201* Introduction to Women’s and Gender Studies in the Arts and Humanities* (if not taken as core) ..................................................3
Total Credits 12

Note: HIS 265 satisfies general education and cultural studies requirements. HIS 266 and HIS 267 do not meet general education or cultural studies requirements.

Women’s and Gender Studies Electives: (Required: 6 credits)

ANT 160  Cultural Diversity in the Modern World ..................................................3
ANT 220  Introduction to Cultural Anthropology ..................................................3
BIO 120  Human Ecology ..................................................3
COM 299  Special Topics in Communication: Gender and Communication ..................................................3
ENG 233  Literature and Identities: (Sexuality & Representation) ..................................................3
ENG 232  Literature and Place (Sub-topic required) ..................................................3
ENG 234  Introduction to Women’s Literature ..................................................3
FAM 253  Human Sexuality: Development, Behavior, and Attitudes ..................................................3
FLK 276  Introduction to Folk Studies ..................................................3
FLK 280  Cultural Diversity in the United States ..................................................3
GEO 160  Lands and Peoples of the Non-Western World ..................................................3
GEO 240  Geography and Gender ..................................................3
HIS 265* History of Women in America* ..................................................3
HIS 266* History of American Women to 1920* ..................................................3
HIS 267* History of American Women from 1920* ..................................................3
HUM 121  Peace Studies ..................................................3
PHI 130  Ethics ..................................................3
PHI 110  Medical Ethics ..................................................3
REL 101  Introduction to Religious Studies ..................................................3
SOC 235  Inequality in Society ..................................................3
SWK 275  The Family ..................................................3
WGS 200* Introduction to Women’s and Gender Studies in the Social Sciences* (if not taken as core) ..................................................3
WGS 201* Introduction to Women’s and Gender Studies in the Arts and Humanities* (if not taken as core) ..................................................3
Total Credits 6

Certificate

Workplace Safety Specialist – 1507993010

(Offers at SEC)

WGS 200  Introduction to Women’s and Gender Studies in the Social Sciences ..................................................3
WGS 201  Introduction to Women’s and Gender Studies in the Arts and Humanities ..................................................3
ISX 100  Industrial Safety ..................................................3
Total Credits 15-18

Women’s and Gender Studies

The Associate in Fine Arts (AFA) in Digital Cinematic Arts degree program is designed for students who plan to transfer to a four-year institution to acquire a Bachelor of Fine Arts in (Digital) Cinematic Arts related fields. The embedded certificate program is designed to accommodate non-degree seeking students that wish to increase their knowledge and skills for the workplace. The program includes standard, transferable general education requirements for students seeking a higher degree. Technical courses in film history, film production techniques, cinematography, digital media, and writing for film are required in the core. Courses are offered in areas such as screenwriting, digital media design, camera, audio, acting and editing. Students will focus on the application of skills in the production of several finished short films.

Due to the nature of the digital cinematic arts, multiple ways of understanding/communicating are explored and critical competencies like creative problem solving, collaboration, time management and critical thinking are learned and practiced. Upon completion, graduates will be prepared for careers in the growing film industry in Kentucky, transfer to a 4-year institution, and for employment—worldwide—in this growing medium.

Digital Cinematic Arts

Associate in Fine Arts

Digital Cinematic Arts – 5006027029

(Offers at BLC)

General Education Core Requirements 24

ENG 101  Writing 1 ..................................................3
ENG 102  Writing 2 ..................................................3
Oral Communications ..................................................3
HUM 121  Peace Studies ..................................................3
MAT 110  Contemporary College Mathematics ..................................................3
MAT 146  Contemporary College Mathematics ..................................................3
Natural Sciences ..................................................3
Humanities/Humanities/Heritage ..................................................3
Must include a laboratory experience for general education certification
Social/Behavioral Sciences ..................................................6

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

FLM 112  Filmmaking: Treatment to Short Screen Play ..................................................4
FLM 112  Filmmaking: Storyboard through Production ..................................................4
**Writing/Accessing Information**

**ENG 101 Writing I** ...............................................................3

**ENG 102 Writing II** ............................................................3

**MAT 150 College Algebra OR....................................................(3)
Higher Level Quantitative Reasoning course .....................................(3)

**Theatre Core**

15-18

**THA 101 Introduction to Theatre** .........................................3

**THA 126 Fundamentals of Acting** ........................................3

**THA 226 Acting II: Scene Study (Realism)** ...............................3

**THA 227 Acting III: Scene Study (Styles)** ...............................3

**THA 260 Stagecraft** .............................................................3

A student must pass an approved three (3) credit hour computer/digital literacy course unless the computer competency exam is successfully completed.

**Practicum Core**

3

**THA 190 Production Practicum (1) (May be repeated)**

**THA 191 Performance Practicum (1) (May be repeated) to equal 3 hours, OR** ........................................3

**TA 195 Special Projects in Theatre Arts (Project Title) OR .............(3)**

**THA 196 Summer Theatre Workshop** ......................................(3)

**Concentration (Choose 18 hours from the Approved Theatre Electives)**

18

**THA 127 Acting Techniques** ................................................3

**THA 150 Fundamentals of Production** ..................................3

**THA 200 Introduction to Dramatic Literature** ........................3

**THA 283 American Theatre** ...............................................3

**FLM 110 Filmmaking: Treatment through Storyboard** ....................4

**FLM 120* Filmmaking: Storyboard through Production** ...............4

**FLM 130 Filmmaking: Editing through Distribution** .................4

**FLM courses are co-requisites**

**MUS 192 University Chorus** ..............................................1

**ART 110 Drawing I** ............................................................3

**ENG 281 Introduction to Film** ............................................3

**ENG 282 International Film Studies** .....................................3

**IMD 250 Digital Video Editing Final Cut** ................................3

Other Courses approved by program coordinator

**Summary**

General Education Core Requirements 25–28

Theatre Core Requirements 15

Practicum Core 3

Concentration (Approved Theatre Electives) 18

Total 61-64

**Visual Art**

The Associate in Fine Arts (AFA) in Visual Art degree program is designed for students who plan to transfer to a four-year institution in order to pursue a BFA in the Visual Arts and/or acquire credentials for a career in arts-related areas. The program includes general education requirements, Visual Art foundation courses in 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 skills and critical analysis. Students will be encouraged to participate in state and regional art exhibitions and festivals with art pieces prepared specifically with an eye toward securing professional work.

**Associate in Fine Arts**

**Visual Art - 50070027019**

*(Offered at HZC, OWC)*

**General Education Core Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101 Writing I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102 Writing II</td>
<td>3</td>
</tr>
<tr>
<td>Oral Communications</td>
<td></td>
</tr>
<tr>
<td>Heritage/Humanities (not including THA classes)</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td>6</td>
</tr>
<tr>
<td>Natural Sciences with laboratory</td>
<td>4</td>
</tr>
<tr>
<td>MA 109 College Algebra OR</td>
<td>3</td>
</tr>
<tr>
<td>MA 111 Contemporary Mathematics OR</td>
<td></td>
</tr>
<tr>
<td>MAT 150 College Algebra OR</td>
<td>(3)</td>
</tr>
<tr>
<td>MAT 250 Higher Level Quantitative Reasoning course</td>
<td>(3)</td>
</tr>
<tr>
<td>FLM 190 Film Boot Camp*</td>
<td>3</td>
</tr>
<tr>
<td>FLM 299 Special Topics in Film: (Topic)</td>
<td></td>
</tr>
<tr>
<td>IMD 250 Digital Video Editing I</td>
<td>3</td>
</tr>
<tr>
<td>MUS 192 University Chorus</td>
<td>1</td>
</tr>
<tr>
<td>ART 110 Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 281 Introduction to Film</td>
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<td>IMD 250 Digital Video Editing Final Cut</td>
<td>3</td>
</tr>
<tr>
<td>Other Courses approved by program coordinator</td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits** 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 – 5006002019**

*(Offered at BLC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>FLM 112 Filmmaking: Treatment to Storyboard</td>
<td>4</td>
</tr>
<tr>
<td>FLM 122 Filmmaking: Storyboard through Production</td>
<td>4</td>
</tr>
<tr>
<td>FLM 132 Filmmaking: Editing through Distribution</td>
<td>4</td>
</tr>
<tr>
<td>FLM 140 Filmmaking: Lab</td>
<td>2</td>
</tr>
<tr>
<td>THA 126 Acting I OR</td>
<td>3</td>
</tr>
<tr>
<td>THA 203 Acting for the Camera</td>
<td>(3)</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td>17</td>
</tr>
</tbody>
</table>

**Theatre - 50050017019**

*(Offered at BLC, OWC)*

**Theatre Core Requirements** 15

The Theatre - 50050017019

**General Education Core Requirements**

<table>
<thead>
<tr>
<th>Course</th>
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</tr>
</thead>
<tbody>
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<td>ENG 101 Writing I</td>
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<td>ENG 102 Writing II</td>
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<tr>
<td>Oral Communications</td>
<td></td>
</tr>
<tr>
<td>Heritage/Humanities (not including THA classes)</td>
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<td>MAT 150 College Algebra OR</td>
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<tr>
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</tr>
<tr>
<td>THA 101 Fundamentals of Acting</td>
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<tr>
<td>THA 226 Acting II: Scene Study (Realism)</td>
<td>3</td>
</tr>
<tr>
<td>THA 227 Acting III: Scene Study (Styles)</td>
<td>3</td>
</tr>
<tr>
<td>THA 260 Stagecraft</td>
<td>3</td>
</tr>
<tr>
<td>Other Courses approved by program coordinator</td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits** 61-64

**Associate in Fine Arts**

**Theatre - 50050017019**

*(Offered at BLC, OWC)*

**Theatre Core**

15-18

**THA 101 Introduction to Theatre** .......................................3

**THA 126 Fundamentals of Acting** .......................................3

**THA 226 Acting II: Scene Study (Realism)** ..........................3

**THA 227 Acting III: Scene Study (Styles)** .........................3

**THA 260 Stagecraft** .....................................................3

A student must pass an approved three (3) credit hour computer/digital literacy course unless the computer competency exam is successfully completed.

**Practicum Core**

3

**THA 190 Production Practicum (1) (May be repeated)**

**THA 191 Performance Practicum (1) (May be repeated) to equal 3 hours, OR** ........................................3

**TA 195 Special Projects in Theatre Arts (Project Title) OR .............(3)**

**THA 196 Summer Theatre Workshop** ......................................(3)

**Concentration (Choose 18 hours from the Approved Theatre Electives)**

18

**THA 127 Acting Techniques** ................................................3

**THA 150 Fundamentals of Production** ................................3

**THA 200 Introduction to Dramatic Literature** ........................3

**THA 283 American Theatre** ...............................................3

**FLM 110 Filmmaking: Treatment through Storyboard** ....................4

**FLM 120* Filmmaking: Storyboard through Production** ...............4

**FLM 130 Filmmaking: Editing through Distribution** .................4

**FLM courses are co-requisites**

**MUS 192 University Chorus** ..............................................1

**ART 110 Drawing I** ............................................................3

**ENG 281 Introduction to Film** ............................................3

**ENG 282 International Film Studies** .....................................3

**IMD 250 Digital Video Editing Final Cut** ................................3

Other Courses approved by program coordinator

**Summary**

General Education Core Requirements 25–28

Theatre Core Requirements 15

Practicum Core 3

Concentration (Approved Theatre Electives) 18

Total 61-64

**Associate in Fine Arts**

**Visual Art - 50070027019**

*(Offered at HZC, OWC, WKC)*

**General Education Core Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101 Writing I</td>
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</tr>
<tr>
<td>ENG 102 Writing II</td>
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</tr>
<tr>
<td>Oral Communications</td>
<td></td>
</tr>
</tbody>
</table>

**Associate in Fine Arts**

**Visual Art - 50070027019**

*(Offered at HZC, OWC, WKC)*

**General Education Core Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
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<td>ENG 101 Writing I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102 Writing II</td>
<td>3</td>
</tr>
<tr>
<td>Oral Communications</td>
<td></td>
</tr>
</tbody>
</table>
Arts & Humanities ................................................... 3  
(The course chosen to satisfy this requirement must be from a  
discipline other than the discipline in the Fine Arts Core and/  
or Concentration)  
Social/Behavioral Sciences ..........................................6  
Natural Sciences ...................................................... 3  
(Must include a laboratory experience for general education  
certification in the Natural Sciences category)  
Quantitative Reasoning ..............................................3  
Subtotal 24  

Fine Arts Core (Visual Art track)  
ART 105 Ancient through Medieval Art History .......................3  
ART 106 Renaissance through Modern Art History ....................3  
ART 110 Drawing I ......................................................3  
ART 112 2-Dimensional Design .........................................3  
ART 113 3-Dimensional Design .........................................3  
ART 210 Drawing II .....................................................3  
Subtotal 18  

Concentration (Choose 18 hours  
from the Approved Art Studio Electives) 18  
ART 211 Life Drawing ..................................................3  
ART 220 Painting I ......................................................3  
ART 221 Painting II .....................................................3  
ART 231 Jewelry/Metals I ...............................................3  
ART 232 Jewelry/Metals II ..............................................3  
ART 240 Ceramics I ......................................................3  
ART 241 Ceramics II ....................................................3  
ART 251 Graphic Communication I ....................................3  
ART 252 Typography ...................................................3  
ART 253 Graphic Communication II ..................................3  
ART 254 Design Process and Presentation ............................3  
ART 260 Sculpture I ....................................................3  
ART 261 Sculpture II ...................................................3  
ART 270 Printmaking I ..................................................3  
ART 271 Printmaking II ..................................................3  
ART 280 Beginning Film Photography ..................................3  
ART 281 Digital Photography I ......................................3  
ART 282 Digital Photography II .....................................3  
ART 290 Survival Skills for Artists ....................................3  
ART 299 Directed Studies in Art ......................................1-3  

Summary  
General Education Core Requirements ..................................24  
Fine Arts Core Requirements ...........................................18  
Concentration (Approved Art Studio Electives) .........................18  
Total 60  

Degree requirements: completion of minimum 60 credit hours; minimum cumulative 2.0  
GPA; minimum of 15 credit hours earned at the institution awarding the degree; cultural  
studies course; and demonstration of computer literacy.  
1 Courses chosen to satisfy General Education requirements must be selected from an  
approved list which may be found in the KCTCS catalog.  
2 A course used to fulfill one category cannot be used to fulfill another category.  
Transitional courses (courses numbered 001-099) cannot be used to satisfy graduation  
requirements.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Course Credit</th>
<th>Unique course identification</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101(3)</td>
<td>Writing</td>
<td>Course ID: 000467</td>
</tr>
<tr>
<td>A course in writing emphasizing argument. Instruction and practice in reading critically, thinking logically, responding to texts, developing research skills, writing substantial essays through systematic revision, addressing specific audiences, and expressing ideas in standard and correct English. Includes grammar and mechanics review. NOTES: (a) credit not available by special examination; (b) ENG 101 and ENG 102 may not be taken concurrently.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Components: Lecture&lt;br&gt;Attributes: WC - Written Communication&lt;br&gt;Campus: BLC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 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<br>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<br>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 instructor. Lecture: 3 credits (45 contact hours).
    - Components: Lecture<br>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<br>Attributes: Course Also Offered in Modules, Technical
- **ACC 2011(1) Course ID: 005946**
  - **Financial Accounting - Accounting as an Information System**
    - Presents the accounting cycle and preparation of financial statements. Pre-requisite: Sophomore Standing (30 credit hours) or Consent of Instructor. Lecture: 1 credit (15 contact hours).
    - Components: Lecture
- **ACC 2012(1) Course ID: 005947**
  - **Financial Accounting - Accounting for Merchandising Businesses**
    - Presents accounting for merchandising businesses including inventories, receivables and internal control. Pre-requisite: Sophomore Standing (30 credit hours) or Consent of Instructor and ACC 2011 or equivalent. Lecture: 1 credit (15 contact hours).
    - Components: Lecture
- **ACC 2013(1) Course ID: 005948**
  - **Financial Accounting - Long Term Assets and Long Term Financing Activities**
    - Presents measuring and reporting of long term assets and long term financing activities. Pre-requisite: Sophomore Standing (30 credit hours) or Consent of Instructor ACC 2011 and ACC 2012 or equivalent. Lecture: 1 credit (15 contact hours).
    - Components: Lecture

### ACH Architectural Technology

- **ACH 100(3) Course ID: 004679**
  - **Construction Documents I**
    - This is the first course of a four-semester studio sequence. Proper methods and fundamentals of architectural construction documents and residential construction will be introduced. Drafting conventions utilizing basic hand drafting tools and computer-aided drawing techniques will be studied. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours).
    - Components: Laboratory, Lecture<br>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<br>Attributes: Technical

### AAD 200(3) Course ID: 000467
- **Survey of the Architectural Profession**
  - Instructor ACC 2011 and ACC 2012 or equivalent. 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
The subject may be expanded with an emphasis on design, structure,
materials, economics, and political considerations. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical
ACH 150(3) Course ID:004682
Construction Documents II
This is the second course of a four-semester studio sequence. Students develop architectural
construction documents for multi-level framed construction. Students will further develop an understanding
of programming, schematics, design development, and construction document production using current computer-aided technology. Emphasis will be placed on building codes and related discipline coordination. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours). Pre-requisite: ACH 100 or consent of instructor.
Components: Laboratory, Lecture Attributes: Technical
ACH 160(3) Course ID:004683
Building Materials and Construction I
The essentials of the theory of selected building materials (Construction Specifications Institute, Divisions 2
and 7) and their assembly in appropriate systems are presented. Students learn particular attention to component selection and behavior under various loads, climatic conditions and fire. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical
ACH 170(3) Course ID:004685
Theory and History of Architecture II
A survey of the architectural periods from the neo-classic to the present is presented. This course is a continuation of ACH 120. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical
ACH 175(3) Course ID:004686
Introduction to Systems
An overview of the various systems found in buildings and the influences that shape architectural design and construction is presented. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical
ACH 180(1 - 3) Course ID:005463
Instructor Consent Required
Selected Topics in Architectural Technology (Topic)
The subject matter of this course may vary from semester to semester as new technology is developed and new issues evolve and/or to address local architectural issues. This course may be repeated with different topics to a maximum of six credit hours. Pre-requisite: Consent of instructor. Lecture: 1-3 credits (15-45 contact hours).
Components: Lecture Attributes: Technical
ACH 194(3) Course ID:004687
Visual Composition
In this course, the student will study the aesthetic principles found in both two-dimensional and three-dimensional compositions. These principles will be applied in exercises involving drawing, model construction and creative writing. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical
ACH 195(3) Course ID:004856
Computer Aided Drafting I
Students learn how computer hardware and software are used in preparing architectural documents. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture Attributes: Technical
ACH 198(1 - 3) Course ID:015866
Practicum in Architectural Technology
Provides supervised, on-the-job work experience related to the student’s educational objectives. Students who participate in the practicum do not receive compensation. Pre-requisite: Completion of a minimum of 12 hours in Architectural Technology (ACH) courses with a minimum cumulative GPA of 2.0 in all courses. Practicum: 1.0 -3.0 credits (40-120 contact hours).
Components: Practicum Attributes: Technical
ACH 200(3) Course ID:004688
Construction Documents III
This is the third course of a four-semester studio sequence. Students study the methods by which commercial buildings are designed and constructed. Basic skills are developed related to the implementation of architectural and construction documents. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours). Pre-requisite: ACH 150 and ACH 185/ACH 195 or consent of instructor.
Components: Laboratory, Lecture Attributes: Technical
ACH 225(3) Course ID:004689
Structures
Students study structural materials and systems including the design of simple structural components. Pre-requisite: ACH 175 and MAH 125, or consent of instructor.
Components: Lecture Attributes: Technical
ACH 250(3) Course ID:004690
Construction Documents IV
This is the fourth course of a four-semester studio sequence. Students prepare a set of advanced construction documents using current computer-aided drafting techniques. Emphasis will be placed on design principles and 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 design is made in the practice of architecture. Lecture: 3 credits (45 contact hours). Pre-requisite: ACH 110 and ACH 2200 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 MAH 125, or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical
ACH 280(2) Course ID:016138
Revi/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 concepts, 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 documentation. Integration of other software will also be discussed. Pre-requisite: ACH 185 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical
ACH 290(3) Course ID:004694
Building Codes I
Students will analyze the content and format of current building codes. The necessity for building codes, problems in interpretation and application as well as legal aspects will be discussed. The main objective is to familiarize students with the basic provisions and procedures associated with building code administration. Pre-requisite: ACH 150 and ACH 160, or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical
ACH 291(3) Course ID:004695
Construction Management
Students examine the principles and current practices of construction management with emphasis on project organization, scheduling and cost control. Pre-requisite: ACH 150, ACH 160 and ACH 161, or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical
ACH 292(3) Course ID:004696
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:004688
Specification Writing
This course provides an in-depth study of the importance of specifications in the design and construction process. Students will engage in research, evaluate the quality of building materials, study the methods of writing specifications, and gain exposure to industry-standard software in preparing a variety of specifications. Pre-requisite: ACH 150, ACH 160, ACH 161, or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical
ACH 295(3) Course ID:004693
Computer Aided Drafting II
Students learn how to modify selected computer-aided drafting software to enhance construction documentation. Integration of other software will...
also be discussed. Pre-requisite: ACH 195 or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

ACR 297(3) Course ID:004699
Estimating Techniques
Students investigate the factors affecting the cost of construction, labor productivity, materials, overhead and profit, including area and volume computations. Current methods of cost estimating will be applied. Pre-requisite: ACH 150 and MAT 125; or consent of instructor. Lecture: 2.5 credits (37.5 contact hours); Laboratory: 0.5 credits (7.5 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

ACR 298(3) Course ID:004700
Computer 3D Modeling
Students learn how computer hardware and software are used in preparing 3D architectural drawings and client-oriented presentations. Pre-requisite: ACH 150 and ACH 185 or consent of instructor.

Components: Lecture
Attributes: Technical

ACR 100(3) Course ID:000949
Refrigeration Fundamentals
Introduces refrigerant piping and fundamentals of refrigeration including environmental issues associated with HVAC. Co-requisite: ACR 101. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

ACR 101(2) Course ID:000950
Refrigeration Fundamentals Lab
Introduces fundamentals of refrigeration including environmental issues associated with HVAC and refrigerant piping. Develops proper hands-on techniques in the servicing and troubleshooting of basic systems. Stress proper use and care of tools, equipment, materials, and safety. Co-requisite: ACR 100. Laboratory: 2 credits (60 contact hours).

Components: Laboratory
Attributes: Technical

ACR 102(3) Course ID:000951
HVAC Electricity
Introduces students to basic physics of electricity. Covers Ohm’s law; measuring resistance, voltage, ohms, watts and amps; constructing various types of electrical circuits; selecting wire and fuse sizes; and troubleshooting an electric motor and motor controls. Co-requisite: ACR 103. Lecture 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical

ACR 103(2) Course ID:000952
HVAC Electricity Lab
Introduces students to basic physics of electricity. Provides for application of Ohm’s law, and measurement of resistance, voltage, ohms, watts and amps; construct various types of electrical circuits; select wire and fuse sizes; and learn to troubleshoot an electric motor and motor controls. Co-requisite: ACR 102 Laboratory 2 credits (60 contact hours).

Components: Laboratory
Attributes: Technical

ACR 112(3) Course ID:000953
Sheet Metal Fabrication
The student will learn to make patterns and lay out and construct common sheet metal duct fittings. Co-requisite: ACR 113.

Components: Lecture
Attributes: Technical

ACR 113(2) Course ID:000954
Sheet Metal Fabrication Lab
Provides lab time for students to lay out, cut, construct, and install common sheet metal duct fittings. Co-requisite: ACR 112. Laboratory: 2 credits (60 contact hours).

Components: Laboratory
Attributes: Technical

ACR 130(3) Course ID:000955
Electrical Components
Defines the electrical components of an air conditioning system. Includes different types of line voltages, wiring diagrams and solid state devices. Emphasizes safety. Pre-requisite: ACR 102 with a grade of C or greater. Co-requisite: ACR 131. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

ACR 131(2) Course ID:000956
Electrical Components Lab
Permits practice using different types of line voltages, reading wiring diagrams, and using solid state devices. Emphasizes safety. Pre-requisite: ACR 102 with a grade of C or greater. Co-requisite: ACR 130 Laboratory: 2 credits (60 contact hours).

Components: Laboratory
Attributes: Technical

ACR 170(3) Course ID:000957
Heat Load/Duct Design
Introduces fundamentals needed to calculate heat gain and heat loss, thereby determining air conditioner/furnace size which will be used to calculate the correct duct size. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

ACR 189(2) Course ID:000958
Instructor Consent Required Practicum
Practicum provides supervised on-the-job work experience related to the student’s educational objectives. Students participating in Practicum do not receive compensation. Pre-requisite: Permission of the Instructor.

Components: Practicum
Attributes: Technical

ACR 200(3) Course ID:000960
Commercial Refrigeration
Develops techniques for servicing and troubleshooting mechanical and electro-mechanical refrigeration components. Emphasizes electrical and refrigeration safety. Covers proper tool use and environmentally sound refrigerant handling. Pre-requisite: (ACR 100 and ACR 101) with a grade of C or greater. Co-requisite: ACR 210. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

ACR 201(2) Course ID:000961
Commercial Refrigeration Lab
Provides techniques in servicing and troubleshooting mechanical and electro-mechanical refrigeration components. Emphasizes electrical and refrigeration safety. Covers proper tool use and environmentally sound refrigerant handling. Pre-requisite: (ACR 100 and ACR 101) with a grade of C or greater. Co-requisite: ACR 200. Laboratory: 2 credits (60 contact hours).

Components: Laboratory
Attributes: Technical

ACR 206(5) Course ID:007376
Boilers
Develops techniques for servicing, troubleshooting and performing preventive maintenance on steam generating systems. Emphasizes electrical and steam safety. Covers proper tool and instrument use and practices for inefficient applications on steam systems used in commercial and industrial settings. Pre-requisite: ACR 102 and ACR 103. Lecture/Lab: 5.0 credits (105 contact hours).

Components: Lecture
Attributes: Technical

ACR 207(5) Course ID:007377
Commercial HVAC Systems
Develops techniques for servicing, troubleshooting and performing preventive maintenance on commercial HVAC systems. Emphasizes electrical and mechanical safety. Covers tools and instruments used in installing, troubleshooting, and performing preventive maintenance on commercial HVAC systems. Pre-requisite: (ACR 100 and ACR 101 and ACR 102 and ACR 103) or Consent of the Instructor. Lecture/Lab: 5.0 credits (105 contact hours).

Components: Lecture
Attributes: Technical

ACR 208(4) Course ID:007378
Chillers
Develops techniques for servicing, troubleshooting and performing preventive maintenance on high-pressure, low-pressure and absorption chilled water systems. Emphasizes electrical and safety. Covers proper tool and instrument use and practices for the efficient applications on chilled water systems used in commercial and industrial settings. Pre-requisite: ACR 100 and ACR 102 and ACR 103. Lecture/Lab: 4.0 credits (75 contact hours).

Components: Lecture
Attributes: Technical

ACR 209(4) Course ID:007379
Manual N Commercial Load Calculation and Design
Course Descriptions

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 bothline and control voltage circuitry pertaining to these systems. Pre-requisite: ACR 102 & 103 or EET 154 & 155 or ETT 112 & 113 or IMT 110 & 111 or consent from the instructor. Co-requisite: ACR 262 Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical
ACR 262(2) Course ID:016230 Heating and Humidification Lab Provides lab time for application of troubleshooting, checking, adjusting, and installing heating units currently in use. Pre-requisite: ACR 102 & 103 or EET 154 & 155 or ETT 112 & 113 or IMT 110 & 111 or consent from the instructor. Co-requisite: ACR 260. Laboratory 2.0 credits (60 contact hours).

Components: Laboratory Attributes: Technical

ACR 270(3) Course ID:000967 Heat Pump Application Explains reverse cycle heating systems, defrost cycles, reversing valves, and auxiliary heating. Concentraisons line and control voltage circuitry pertaining to these units. Pre-requisite: (ACR 100 and ACR 102) with a grade of C or greater) Permission of Instructor. Co-requisite: ACR 271. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Technical

ACR 271(2) Course ID:000968 HVAC Licensing Exam Prep 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) Permission of Instructor. Co-requisite: ACR 270. Laboratory: 2 credits (60 contact hours).

Components: Laboratory 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 292(2) Course ID:000971 Instructor Consent Required Special Problems II A course designed for the student who has demonstrated specific special needs. Pre-requisite: Permission of Instructor.

Components: Laboratory Attributes: Technical

ACR 293(2) 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: Lecture Attributes: Technical

ACT 101(3) Course ID:000004 Fundamentals of Accounting I Students are introduced to accounting terminology and general theoretical principles. The major focus of the course is on the accounting cycle and the communication of financial information to decision-makers. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Technical

ACT 102(3) Course ID:000005 Fundamentals of Accounting II Basic financial accounting concepts and methods are expanded to include accounting for partnerships and corporations. Lecture: 3 credits (45 contact hours).

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: Technical

ACT 196(3) Course ID:000007 Payroll Accounting Introduces the design and implementation of modem payroll systems. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Technical

ACT 277(3) Course ID:000008 Managerial Accounting Topics The study of using accounting information in managerial planning and control of organizations. Pre-requisite: ACR 202. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Technical

ACT 279(3) Course ID:000010 Computerized Accounting Systems Applying accounting concepts and principles by using accounting software, for both service businesses and merchandisers. Includes internal control principles for both manual and computerized accounting systems. Pre-requisite: ACR 201 or ACR 101 and ACR 102 or concurrent enrollment in ACR 102. Digital literacy 3.0 hours. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

ACT 281(3) Course ID:000013 Individual Taxation The study of the theory and applications of federal and individual income taxes will be emphasized. Lecture: 3.0 credit hours. Pre-requisite: One semester of college accounting or consent of instructor.

Components: Lecture Attributes: Technical

ACT 286(3) Course ID:000014 Financial Accounting Topics Additional in-depth exposure to financial accounting procedures for classifying, recording, reporting, and disclosing; 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 ACR 101 and ACR 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 171(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 172(0.6) Course ID:005240 Contractual and Legal Reporting Requirements Components: Lecture

ACT 173(0.6) Course ID:005241 Overview of Accounting for the Entrepreneur Components: Lecture

ACT 181(0.5) Course ID:006117 Payroll Records Students are introduced to the records required for today's payroll system. Lecture: 0.5 credit (7.5 contact hours).

Components: Lecture

ACT 182(0.5) Course ID:006118 Payroll Taxes Covers federal and state tax withholding and employer-side payroll expenses. Pre-requisite: ACT 196. Lecture: 0.5 credit (7.5 contact hours).

Components: Lecture

ACT 283(3) Course ID:006119 Accounting for Payroll Covers federal and state unemployment laws and accounting for payroll. Pre-requisite: ACT 196. Lecture: 0.5 credit (7.5 contact hours).

Components: Lecture


Components: Lecture

ACT 1963(0.5) Course ID:006121 Computerized Payroll Requires the student to complete a Computerized Payroll Simulation. Pre-requisite: ACT 1962 & 1963. Lecture: 0.5 credit (7.5 contact hours).

Components: Lecture

ACT 2791(1) Course ID:015822 Computer Accounting Basics Presents accounting concepts and principles for a
merchandiser using computerized accounting software. Pre-requisite: ACC 201 or ACT 101 and ACT 102 or concurrent enrollment in ACT 102. Digital literacy: 3.0 hours. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

AET 100(1) Course ID:006358
Introduction to Lean Systems
Introduces the concepts of Lean systems to include Lean Manufacturing basics and tools, Lean implementation, Lean measures, Six-Sigma, and Lean supply chain design and management. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
Attributes: Technical

AET 102(4) Course ID:006359
Introduction to Energy
Introduces the scientific principles of energy and fuels and investigates specific topics: nature and extent of energy resources, economics and environmental effects, alternative energy, energy technology, health and safety. Lecture/Lab: 4.0 credits (75 contact hours).

Components: Lecture
Attributes: Technical

AET 110(4) Course ID:006360
Introduction to Circuit Analysis
Covers basic electrical components as well as DC/AC circuit configurations; introduces the theory and operation of solid state devices such as diodes, BJTs, FETs, and operational amplifiers; emphasizes circuit construction, analysis, and troubleshooting. Co-requisite: MT 125 or Consent of Instructor: Lecture/Lab: 4.0 credits (75 contact hours).

Components: Lecture
Attributes: Technical

AET 112(4) Course ID:006361
Alternative Energy Fundamentals
Addresses topics of alternative energy sources including passive and active solar systems, fuel cells, photovoltaic systems, wind turbines and wind power generation. Co-requisite: AET 102. Lecture/Lab: 4.0 credits (75 contact hours).

Components: Lecture
Attributes: Technical

AET 114(4) Course ID:006362
Solar and Wind Energy Generation
Introduces the concepts of solar and wind power generation. Pre-requisite: AET 110 or consent of instructor: Lecture/Lab: 4.0 credits (75 contact hours).

Components: Lecture
Attributes: Technical

AET 120(4) Course ID:006363
Power Electronics
Introduces the concepts of power electronics. Pre-requisite: AET 110 or consent of instructor: Lecture/Lab: 4.0 credits (75 contact hours).

Components: Lecture
Attributes: Technical

AET 130(3) Course ID:006364
Industrial Sensors
Introduces the concepts of industrial sensors and applications. Pre-requisite: AET 110 or consent of instructor: Lab: 3.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical

AET 140(4) Course ID:006365
Industrial Equipment Maintenance
Introduces the concepts of industrial maintenance. Pre-requisite: AET 110 or consent of instructor: Lecture/Lab: 4.0 credits (75 contact hours).

Components: Lecture
Attributes: Technical

AET 160(4) Course ID:006367
Industrial Controls Electronics
Introduces the concepts of industrial controls electronics. Pre-requisite: AET 110 or consent of instructor: Lecture/Lab: 4.0 credits (75 contact hours).

Components: Lecture
Attributes: Technical

AET 170(4) Course ID:006368
Digital Circuits and Concepts
Introduces the concepts of digital electronics. Pre-requisite: AET 110 or consent of instructor: Lecture/Lab: 4.0 credits (75 contact hours).

Components: Lecture
Attributes: Technical

AET 180(3) Course ID:006369
Industrial Computer Architecture
Introduces the basic layout of industrial computers as preparatory course leading into the more advanced courses. Pre-requisite: AET 110 or consent of instructor: Lecture: 3.0 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. Prerequisite: Consent of instructor. Lecture/Lab: 4.0 credits (75 contact hours).
Components: Lecture Attributes: Technical
AET 200(4) Course ID:006371
Integrated Circuits
Focuses on integrated circuits as they apply to linear and non-linear applications to include integration techniques, operational amplifiers, linear voltage amplifiers, waveform generators, comparators, actvifilters, and interfacing. Prerequisite: AET 150 or Consent of Instructor. Lecture/Lab: 4.0 credits (75 contact hours).
Components: Lecture Attributes: Technical
AET 210(4) Course ID:006372
Alternative Energy Independent Studies
Provides the student with the opportunity to put to practical use, by way of a student project, the knowledge and skills gained in AET 102, AET 112, AET 114, and AET 120. Prerequisite: AET 112 and AET 114 and AET 120. Lecture/Lab: 4.0 credits (105 contact hours).
Components: Lecture Attributes: Technical
AET 220(4) Course ID:006373
Modulation Techniques and Applications
Introduces the various types of electronic modulation including amplitude, frequency, and phase modulation with emphasis on antenna theory and the study of RF power in both resonant and non-resonant loads. Pre-requisite: AET 200 or Consent of Instructor. Lecture/Lab: 4 credits (75 contact hours).
Components: Lecture Attributes: Technical
AET 230(3) Course ID:006374
Introduction to Circuit Design
Utilizes ideas learned in previous electronics courses to design, build, and test circuits based upon design criteria provided by the instructor. Prerequisite: [AET 170 and AET 200] or Consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture Attributes: Technical
AET 240(4) Course ID:006375
Industrial Machinery Control
Examines AC and DC motors and their associated control equipment. Introduces ladder logic and schematic-diagram interpretation and drawing. Gives the student practical experience in the design, construction and troubleshooting of industrial motor control circuitry. Advances the use of solid state devices and system integration. Prerequisite: AET 110. Lecture/Lab: 4 credits (50 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. Prerequisite: AET 190. Lecture/Lab: 4.0 credits (75 contact hours).
Components: Lecture Attributes: Technical
AET 260(4) Course ID:006377
Instructor Consent Required
Robotics and Programmable Controls
Introduces the theory of robots and programmable controls including terminology, components, and basic programming; provides theory of servo and non-servo robots and their controllers. Pre-requisite: Consent of instructor. Lecture/Lab: 4.0 credits (75 contact hours).
Components: Lecture Attributes: Technical
AET 270(4) Course ID:006378
Advanced PLC Programming
Introduces the student to the wide range of capabilities, beyond basic programming needs, which are available to the modern PLC user. Includes data Manipulation; shift register and sequencer instructions; binary, octal and hexadecimal numbering systems; and analog inputs and outputs. Prerequisite: EET 276 and EET 277 Lecture/Lab: 4.0 credits (75 contact hours).
Components: Lecture Attributes: Technical
AET 270(4) Course ID:006378
Advanced PLC Programming
Introduces the student to the wide range of capabilities, beyond basic programming needs, which are available to the modern PLC user. Includes data Manipulation; shift register and sequencer instructions; binary, octal and hexadecimal numbering systems; and analog inputs and outputs. Prerequisite: EET 276 and EET 277 Lecture/Lab: 4.0 credits (75 contact hours).
Components: Lecture Attributes: Technical
AET 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
AET 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
AET 113(1) Course ID:005361
Aerospace Studies I
A course designed to provide the student with a basic understanding of the contribution of aerospace power to the total U.S. strategic offensive and defensive military posture. The student also develops leadership abilities by participating in a military organization, the cadet corps, which offers a wide variety of situations demanding effective leadership. Pre-requisite: AFS 111. Lecture: 1 credit (15 contact hours).
Components: Lecture Attributes: Other
AFS 114(1) Course ID:005362
Leadership Laboratory I
A continuation of AFS 113. A course designed to develop managerial skills including superior/subordinate relationships, communications, customs and courtesies, basic drill movements and career progression requirements. Credit will not be granted toward the hours requirements for the degree. Pass/Fail only. Co-requisite: AFS 113. Laboratory: 1 credit (45 contact hours).
Components: Laboratory Attributes: Other
AFS 211(2) Course ID:005235
Aerospace Studies II
A course designed for development of advanced skills required to be a manager/leader, including leadership/leaders, 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 212(1) Course ID:005236
Leadership Laboratory II
A continuation of AFS 211. 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. Requires 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:002299
Introduction to Fertilizers and Soils
Introduces practical aspects of soils and fertilizers as related to plant growth and production. Lecture: 2 credits (30 contact hours). Lab: 1.0 credits (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical
AGR 130(2) Course ID:005135
Field Applications in Agriculture
Includes methods of solving many application problems encountered in agriculture using applied mathematical and logic skills. Emphasizes practical mathematical skills already acquired from secondary education to address agricultural situations involving computations necessary for upper level courses in agriculture. Requires some knowledge of agricultural situations. Prerequisite: 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
Introduces 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:000032
Introduction to Animal Science
Provides a limited review of the farm species of livestock. Includes the study of major livestock breeds of beef and dairy cattle, sheep, swine, poultry, and horses. Covers management application for livestock production as well as production ethics. Pre-requisite: AG 240; 2.0 credits (30 contact hours). Lab: 1.0 credits (30 contact hours).

Components: Laboratory, Lecture

Attributes: Technical

AGR 240(3) Course ID:000032
Introduction to Animal Science
Provides a limited review of the farm species of livestock. Includes the study of major livestock breeds of beef and dairy cattle, sheep, swine, poultry, and horses. Covers management application for livestock production as well as production ethics. Pre-requisite: AG 240; 2.0 credits (30 contact hours). Lab: 1.0 credits (30 contact hours).

Components: Laboratory, Lecture

Attributes: Technical

AGR 250(3) Course ID:000033
Introduction to Plants/Crop Production
Familiarizes students with the basic principles and theories involved in field crop production. Provides an understanding of how crops are grown as a prelude to growing crops successfully. Covers pest and disease management as well as plant disease and pest control. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture

Attributes: Technical

AGR 260(3) Course ID:007387
Introduction to Sustainable Agriculture
Provides students with a clear understanding of the principles, history, and practices of sustainable agriculture in our local and global communities. Provides an understanding of the challenges to sustainability present 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, practices, and policy of organic agriculture. Topics covered include the history and the need for organic agriculture, fundamental agricultural practices, organic animal production, the National Organic Program, and economic and marketing considerations for organic products. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Technical

AGR 280(3) Course ID:007424
Livestock Management
Covers management practices involved in the production of swine, horses, cattle, sheep and goats. Emphasizes selection, reproduction, feeding, diseases, marketing, handling, and parasite control. Laboratory exercises teach and reinforce livestock management techniques. Pre-requisite: AGR 240 Introduction to Animal Science. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture

Attributes: Technical

AGR 223(3) Course ID:000410
Introduction to Artificial Insemination in 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 review of the farm species of livestock. Includes the study of major livestock breeds of beef and dairy cattle, sheep, swine, poultry, and horses. Covers management application for livestock production as well as production ethics. Pre-requisite: AG 240; 2.0 credits (30 contact hours). Lab: 1.0 credits (30 contact hours).

Components: Laboratory, Lecture

Attributes: Technical

AGS 115(3) Course ID:015713
Agricultural Marketing and Sales
Provides knowledge required for development of skills in the following areas: commercial vegetable production; marketing; and sales techniques. Lecture: 2.0 credits (30 contact hours).

Components: Lecture

Attributes: Technical

AGS 205(3) Course ID:015718
Forage Management
Involves the study of the management, production, and use of forage grasses and legumes for harvested and grazed production. Subject areas will include varieties selection, planting, calculating yields, production cost, growth management, and harvesting techniques. Management will focus on annual and perennial legume and grass production. This course will emphasize establishment, winter survival, fertilization, cutting management, forage storage, and variety selection. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture

Attributes: Technical

AGS 215(3) Course ID:015719
Weed Management
Examines the nature of crop/weed interactions and explores various weed control methods. Weed identification, biology, ecology and modern management principles are all explored in this course. Pre-requisite: AGS 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: AGS 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, use, management, and physiology. Pre-requisite or Co-requisite: AGR 250 Intro to Plants/Crop Production. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture

Attributes: Technical

AGS Agricultural Studies

Course Descriptions
AGS 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 Plant/Crop Production. Lecture/Lab: 3 credits (60 contact hours).
Components: Lecture Attributes: Technical

AGS 255(3) Course ID: 015723
Crop Scouting
Designed to give students a hands-on experience scouting crops to find and identify existing and potential problems related to crop growth and development, fertility, pest pressure, and similar yield reducers. Pre-requisite: AGS 235 Field Crop Production. Lecture/Lab: 3 credits (60 contact hours).
Components: Lecture Attributes: Technical

AGS 265(2) Course ID: 015724
Agriculture Business and Records
Provides students with an introduction to farm business management and record keeping. Emphasis is placed on business structures, developing a business plan, budgeting, and accounting. Agriculture tax code, and record keeping. Lecture: 2.0 credits (30 contact hours).
Components: Lecture Attributes: Technical

AGS 275(3) Course ID: 015725
Value Added Production
Provides students the knowledge and skills necessary to add economic value to raw farm products. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

AGS 285(3) Course ID: 015726
Farm Financial Management
Provides an overview of financial management 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

AGS 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 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 lifespan. 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: Lecture Attributes: 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 epidemiology, public and industrial hygiene, 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 dedicated 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: Lecture Attributes: Technical

AHS 203(3) Course ID: 005479
Divinity in Health Care
Introduces students to health care consumers from various cultural backgrounds. Emphasis is placed on 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 the relationship between health and illness and the variety of meanings these terms carry for members of different cultures and ethnicity. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

AHS 215(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 112(1) Course ID: 016313
Basic Elements of Terminology
Focuses on basic elements of medical words from Greek or Latin roots, together with additional emphasis on spelling and pronunciation. Pre-requisite: AHS 1151. Lecture: 1 credit (15 contact hours).
Components: Lecture

AHS 115(1) Course ID: 016314
Advanced Word Roots & Systems
Focuses on advanced word structures and the definition of root words, suffixes, and prefixes from Greek and Latin that are related to human body structures; also includes the study of commonly used medical abbreviations. Pre-requisite: AHS 1152. Lecture: 1 credit (15 contact hours).
Components: Lecture

AIM Advanced Integrated Manufacturing

AIM 100(3) Course ID: 016284
Principles of Advanced Integrated Manufacturing
Introduces the principles of manufacturing safety and health in a modern manufacturing environment. Covers current manufacturing quality control concepts and techniques used in industry with an emphasis on proper statistical methods and relevant software. Pre-requisite: Reading and math assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Course Also Offered in Modules, Technical

AIM 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: Course Also Offered in Modules, 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: Course Also Offered in Modules, Technical

AIM 1001(1.5) Course ID: 016583
Basic Safety in Manufacturing
Introduces basic manufacturing safety and ergonomic techniques. Pre-requisites: Reading and math assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture/Lab: 1.5 credits (30 contact hours).
Components: Lecture

AIM 1002(1.5) Course ID: 016584
Manufacturing with Quality
Introduces basic quality and auditing techniques as well as basic statistical tools used in the manufacturing environment. Lecture/Lab: 1.5 credits (30 contact hours).
Components: Lecture
AIM 1101(1) Course ID:016585
Industrial Materials and Safety
Addresses safety in a traditional and CNC machining environment and introduces industrial materials and their properties. Pre-requisite: Reading and math assessment scores above KCTCS developmental level or successful completion of prescribed developmental courses. Lecture/Lab: 1.0 credits (20 contact hours)
Components: Lecture

AIM 1102(1) Course ID:016586
Metal Removal and Metrology
Introduces the science of measurement and metal removal fundamentals for various industrial processes and materials. Pre-requisites: AIM 1101. Lecture: 1.0 credit (20 contact hours)
Components: Lecture

AIM 1103(1) Course ID:016588
CNC Nontraditional Machining
Introduces different types of nontraditional machining and CNC (G and M) coding used to control nontraditional machining. Pre-requisites: AIM 1102 or consent of instructor. Lecture/Lab: 1.0 credits (20 contact hours)
Components: Lecture

AIM 1201(1) Course ID:016589
Introduction to Plastics
Introduces polymers and the plastic industry. Includes safety in the plastic manufacturing environment as well as the history of plastic polymers and industry advancements. Pre-requisite: Reading and math assessment scores above KCTCS developmental level or successful completion of prescribed developmental courses. Lecture: 1.0 credit (20 contact hours).
Components: Lecture

AIM 1202(1) Course ID:016590
Plastic Formulation and Design
Presents the different polymer formulations (polymerization) and applications. Discusses product considerations, design for manufacturability (DFM) and extrusion. Pre-requisite: AIM 1201 or Consent of Instructor. Lecture/Lab: 1.0 credits (20 contact hours)
Components: Lecture

AIM 1203(1) Course ID:016591
Plastic Molding Processes
Presents the industry standards and process techniques of thermoforming, injection molding and laminating. Discusses different types of plastic resin and the proper handling and preparation for production. Pre-requisite: AIM 1202 or Consent of Instructor. Lecture/Lab: 1.0 credit (20 contact hours).
Components: Lecture

A11 Advanced Industrial Integrated

A11 100(4) Course ID:005955
Power Generation and Utilization
Introduces electrical, hydraulic, and pneumatic power systems used in industry. Provides theory and applications 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 level or successful completion of prescribed developmental courses. Lecture/Lab: 4.0 credits (90 contact hours). (30:1 Ratio Lab).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

A11 100(3) Course ID:005956
Power Distribution Systems
Provides instruction in the use of electrical, hydraulic, and pneumatic power as it applies in industry. Covers AC/DC circuit analysis, single-phase and three-phase power including hydraulic and pneumatic power and basic principles of pressure and flow. Pre-requisite: A11 100 or consent of instructor. Lecture/Lab: 3 credits (67.5contact hours)
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

A11 120(3) Course ID:005957
Equipment Installation
Focuses on the installation of electrical, hydraulic, and pneumatic industrial systems. Emphasizes motor installation, wiring/box selection, conduit preparation and installation, hydraulic/pneumatic systems, piping, controls, and various lifting and rigging techniques. Pre-requisite: Reading assessment exam scores above KCTCS developmental level or successful completion of prescribed developmental courses. Lecture/Lab: 3.0 credits (75 contact hours). (30:1 Ratio Lab).
Components: Lecture
Attributes: Course Also Offered in Modules

A11 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: 4.0 credits (90 contact hours). (30:1 Ratio).
Components: Lecture

A11 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

A11 160(1) Course ID:005961
Workplace Safety
Focuses on industrial safety practices. Includes personal safety and equipment, hazard recognition, and safeguards. Covers electrical safety procedures and hazardous materials. Emphasizes OSHA rules and regulations. Pre-requisite: Reading assessment exam scores above KCTCS developmental level or successful completion of prescribed developmental courses. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical

A11 190(2) Course ID:005961
Integrated Power Plant Operations
Introduces students to main components found within a fossil fuel 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. Prepares students to take examination for electrical technician certificate. Pre-requisite: A11 190 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

A11 200(4) Course ID:005963
Process Management and Quality Control
Emphasizes project team organization. Introduces the following concepts: cycle time, production time, firstpass yield, and barrier identification. Emphasizes critical understanding acceptance criteria with tolerances, data collection, and data reporting. Pre-requisite: A11 190 or Consent of Instructor. Lecture/Lab: 4.0 credits (90 contact hours). (30:1 Ratio Lab).
Components: Lecture

A11 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, coupling 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 level or successful completion of prescribed developmental courses or consent of instructor. Lecture/Lab: 4.0 credits (90 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules

A11 220(3) Course ID:005965
The Integrated Power Grid
Introduces students to types of power plants that are tied to the electric grid other than fossil fuel powerplants. Provides overview 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
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, instrumention, and automation controls. Required for students in the Advanced Integrated Technology program who want to pursue the Bachelor of Science Electromechanical Engineering Technology 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: 2.0 credits (45 contact hours).

Components: Lecture

AIT 1002(1)
Course ID: 006151
Power Development
Introduces electrical power systems used in industrial settings, including basic theory and application of DC generators, alternators, and electric motors. Pre-requisite: Reading assessment exam scores above KCTCS developmental placement level or successful completion of prescribed developmental courses or completion of AIT 1001 or consent of instructor. Lecture/Lab: 1.0 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 1001 or consent of instructor. Lecture/Lab: 1.0 credit (22.5 contact hours).

Components: Lecture

AIT 1101(1)
Course ID: 006153
Integrated Process Control
Covers 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 credits (45 contact hours).

Components: Lecture

AIT 1102(1)
Course ID: 006154
Fluid Power Distribution
Provides instruction in the use of hydraulic power as it applies in industry. Includes AC/DC circuit analysis, AC power generation and three-phase distribution systems, and transformers. Pre-requisite: AIT 1001 or consent of instructor. Lecture/Lab: 1.0 credits (22.5 contact hours).

Components: Lecture

AIT 1200(1)
Course ID: 006155
Control Wiring
Focuses on the installation of electrical industrial systems, including print reading, wiring, control wiring, and wiring techniques. Pre-requisite: Reading assessment exam scores above KCTCS developmental placement level or successful completion of prescribed developmental courses or consent of instructor. Lecture/Lab: 1.0 credit (25 contact hours).

Components: Lecture

AIT 1202(1)
Course ID: 006156
Piping, Pneumatic, & Installation
Focuses on the installation of pneumatic industrial systems, including the integration of drawings, fabrication of pipe and fittings, 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 credits (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 control. Examines the importance of PID controllers in a control loop. Pre-requisite: MT 120 or higher OR consent of instructor. Lecture/Lab: 2.0 credits (45 contact hours).

Components: Lecture

AIT 1401(2)
Course ID: 006160
Basic Electrical Controls
Provides instruction in the integrated application of basic electrical controls including electrical motor controls with starting, reversing, and stopping devices. Pre-requisite: AIT 100 or AIT 1001 or consent of instructor. Lecture/Lab: 2.0 credits (45 contact hours).

Components: Lecture

AIT 1402(1)
Course ID: 006161
Basic Pneumatic Controls
Introduces the student to pneumatic speed control circuits. Uses air pressure regulators and flow controls for motor cylinder speeds. Pre-requisite: AIT 100 or AIT 1001 or consent of the instructor. Lecture/Lab: 1.0 credit (22.5 contact hours).

Components: Lecture

AIT 1403(1)
Course ID: 006162
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 1001 or consent of the instructor. Lecture/Lab: 1.0 credit (22.5 contact hours).

Components: Lecture

AIT 1501(2)
Course ID: 006163
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 140 or AIT 1401 or consent of instructor. Lecture/Lab: 2.0 credits (45 contact hours).

Components: Lecture

AIT 1502(1)
Course ID: 006164
Intermediate Pneumatic Controls
Provides instruction in the integrated application of advanced industrial controls for pneumatic systems. Emphasizes pneumatic logic circuits. Pre-requisite: AIT 100 or AIT 1402 or consent of instructor. Lecture/Lab: 1.0 credit (22.5 contact hours).

Components: Lecture

AIT 1503(1)
Course ID: 006165
Intermediate Hydraulic Controls
Provides instruction in the integrated application of advanced industrial controls for hydraulic circuits. Emphasizes hydraulic synchronization circuits and multi-pressure circuits. Pre-requisite: AIT 140 or AIT 1403 or consent of instructor. Lecture/Lab: 1.0 credit (22.5 contact hours).

Components: Lecture

AIT 1901(1)
Course ID: 006562
Water and Steam Systems
Provides instruction in the main components and integration of water and steam systems within a fossil fuel power plant. (Reading and Mathematics assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses) OR consent of instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

AIT 1902(1)
Course ID: 006563
Air and Gas Flows
Provides instruction in the main components and integration of air and gas flows within a fossil fuel power plant. (Reading and Mathematics assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses) OR consent of instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

AIT 1903(1)
Course ID: 006564
Power Distribution
Provides instruction in the main components and integration of the power distribution of a fossil fuel power plant. (Reading and Mathematics assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses) OR consent of instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

AIT 2001(2)
Course ID: 006167
Integrated Process Management
Introduces the following concepts: cycle time, production time, firstpass yield, and barrier identification. Pre-requisite: AIT 130 or Consent of Instructor. Lecture/Lab: 2.0 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: 2.0 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 credits (22.5 contact hours).

Components: Lecture
courses or consent of instructor. Lecture/Lab 1.0 credit (22.5 contact hours).

Component: Lecture

AIT 2103(2)  Course ID:006171
Advanced Mechanical
365 focuses on troubleshooting techniques necessary for advanced and highly technical industrial machinery. Prerequisite: Reading and Mathematics assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses or consent of instructor. Lecture/Lab: 2.0 credits (45 contact hours).

Component: Lecture

AIT 2701(1)  Course ID:006943
Introduction to PLCs
Examines fundamental architecture of programmable logic controllers as it pertains to industrial applications and incorporates ladder logic principles, commonly used instruction language, editing, program navigation and program analysis. Prerequisite: AIT 1501 or Consent of Instructor. Lecture/Lab: 1.0 credit (22.5 contact hours).

Components: Lecture

AIT 2702(1)  Course ID:006944
Introduction to Robotics
Investigates underlying principles, applications and fundamentals of 6-axis robots including manipulator manipulation, execution of existing robotic programs, file modification of target parameters, and safety interlocks. Prerequisite: AIT 2701. 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 personal 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. Prerequisites: None.

Components: Lecture
Attributes: Other

AMS 211(2)  Course ID:004854
Advanced Leadership I
This course focuses on both theoretical and practical aspects of leadership. Students will examine topics such as written and oral communication, effective listening, assertiveness, personality, adult development, motivation, and organizational culture and change. Lecture: 2 credits (30 contact hours).

Components: Lecture
Attributes: Technical

AMS 250(1)  Course ID:005380
Basic Military Science Lab
A hands-on practicum which exposes the student to the military skills required for basic technical and tactical competence to enter the Advanced Course Laboratory, two hours per week and two-week exercises. May be repeated a maximum of four credits. Practicum: 1 credit (32 contact hours).

Components: Practicum
Attributes: Technical

AMT Aviation Maintenance Technology

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, basic 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 assembly comparability. 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 150or 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 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 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 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 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/37 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
Maintenance Forms and Records
Instruction in the use and completion of required forms and records is taught by lecture, demonstrations, worksheets and reading assignments. Lecture: 0.5 credit (8 contact hours) Lab: 0.5 credit (15:1 ratio/37 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
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 150 or GE 150 or Consent of Instructor.

Components: Lecture
Attributes: Technical

AMT 205(1)  Course ID:004363
Non-Metallic Structures
Provides instruction in the inspection, service, and repair of metal and composite aircraft structures, including laminated 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, 112, and 113. All AMT courses must be achieved with a grade of C or greater.

Components: Lecture
Attributes: Technical

AMT 211(1)  Course ID:004366
Aircraft Finishes
Provides instruction in the identification, application and inspection of aircraft finishing materials. 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 215(1)  Course ID:004368
Instructor Description
Instruction includes inspection of airframes to determine airworthiness. 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
All AMT courses must be achieved with a grade of C or greater.

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 (60:1 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 (75:1 ratio/112 contact hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, and 112. All AMT courses must be achieved with a grade of C or greater.

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 infueling are included. Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credits (90:1 ratio/45 contact hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, and 112, 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 112. All AMT courses must be achieved with a grade of C or greater.

Components: Lecture
Attributes: Technical

AMT 236(2) Course ID:004388
Engine Electrical Systems
Repair of engine electrical system components, and to install, check, and service engine electrical wiring, controls, switches, indicators, and protective devices by lecture, reading assignments, worksheets, demonstration and practical projects. Lecture: 1 credit (15 contact hours) Lab: 1 credit (60:1 ratio/30 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 237(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, and 112. All AMT courses must be achieved with a grade of C or greater.

Components: Lecture
Attributes: Technical

AMT 251(1) Course ID:004381
Reciprocating Engine Overhaul
Inspection, servicing and repair of reciprocating engines will be taught by lecture, demonstration, student feedback and participation. Lecture: 2 credits (30 contact hours) Lab: 2 credits (60:1 ratio/120 contact hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, and 112. All AMT courses must be achieved with a grade of C or greater.

Components: Lecture
Attributes: Technical

AMT 252(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 contacthours) Lab: 0.5 credits (15:1 ratio/7 contact hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, and 112. All AMT courses must be achieved with a grade of C or greater.

Components: Lecture
Attributes: Technical

AMT 253(1) Course ID:004383
Induction Systems
Inspection, checking, troubleshooting, servicing and repair of engine ice and rain control systems, heat exchangers, superchargers, carburetor air intake and induction manifolds are taught by reading assignments, worksheets, lecture, demonstration and practical projects. Lecture: 0.5 credits (8 contact hours) Lab: 0.5 credits (45:1 ratio/22 contact hours) Pre-requisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, and 112. All AMT courses must be achieved with a grade of C or greater.

Components: Lecture
Attributes: Technical

AMT 254(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, and 112. All AMT courses must be achieved with a grade of C or greater.

Components: Lecture
Attributes: Technical

AMT 255(1) Course ID:004382
Fire Protection Systems
Troubleshooting, servicing and repair of fluid flow indicating systems and repair of engine temperature, pressure, and r.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 112. All AMT courses must be achieved with a grade of C or greater.

Components: Lecture
Attributes: Technical

AMT 256(1) Course ID:004386
Engine Instrument Systems
Troubleshooting, servicing and repair of fluid flow indicating systems and repair of engine temperature, pressure, and r.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 112. All AMT courses must be achieved with a grade of C or greater.

Components: Lecture
Attributes: Technical

AMT 257(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) Prerequisite: AMT 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, 112, and 113. All AMT courses must be achieved with a grade of C or greater.

Components: Lecture Attributes: Technical

ANA Anatomy and Neurobiology

ANTC Anthropology

ANT 101(3) Course ID:004655
Introduction to Anthropology
Introduces the student to the study of human cultures, past and present. Offers a comprehensive introduction to anthropology, emphasizing the concepts and methods of the major sub-fields i.e., cultural, biological, archaeology, and linguistics. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: SN - Science

ANT 130(3) Course ID:000044
Introduction to Comparative Religion
Introduces students to a comparative analysis of world religions, emphasizing beliefs, rituals, artistic expressions, and cultural and social organization. Includes both Eastern and Western religions. (Same as ANT130). Lecture: 3 credits (45 contact hours).

Components: Lecture Course Equivalents: REL 130

ANT 160(3) Course ID:002204
Cultural Diversity in the Modern World
Introduces the student to the diversity of human cultural experience in the contemporary world. Focuses on gaining an appreciation for the common humanity and uniqueness of all cultures; creating sensitivity toward stereotypes and ethnocentrism, and understanding the distinctions between ‘race’, ethnicity and racism. Features extended descriptions of the cultural dynamics of the culture(s) with which the instructor has worked. Directed at non-majors.

Components: Lecture Attributes: Cultural Studies, AH - Arts and Humanities, SB - Social Behavior Science

ANT 220(3) Course ID:000043
Introduction to Cultural Anthropology
Examines variations in beliefs, behaviors, and institutions of different peoples. Acquaints the student with knowledge of how anthropological concepts and knowledge are used to understand and appreciate cultural diversity. Prerequisite: ACT, COMPASS, or ASSET scores for college level reading OR completion of developmental reading courses.

Components: Lecture Attributes: Cultural Studies, SB - Social Behavior Science

ANT 221(3) Course ID:002196
Native People of North America
Surveys the aboriginal Native American cultures of North America, and of the impact of four centuries of British, French, Spanish and Russian contact on the Indian communities. Considers the status of Native Americans in present-day North America. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Cultural Studies, SB - Social Behavior Science

ANT 223(3) Course ID:007065
Culture Change and Globalization
Introduces the historical development of anthropology, its role in 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 credits (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 the cultural and historical factors influencing diet and nutrition. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading OR completion of developmental reading courses. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Cultural Studies, SB - Social Behavior Science

ANT 240(3) Course ID:002206
Introduction to Archaeology
Introduces the theories, techniques, and strategies used by archaeologists to recover and interpret information about past cultures. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: SB - Social Behavior Science, Other

ANT 241(3) Course ID:000045
Origins of Old World Civilization
Surveys cultural developments in the Old World from the earliest times to the beginning stages of civilization. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Cultural Studies, SB - Social Behavior Science

ANT 242(3) Course ID:000046
Origins of New World Civilization
Surveys the origin and growth of prehistoric Native American cultures as revealed by archaeological data. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Cultural Studies, SB - Social Behavior Science

APC Apprenticeship Studies

APC 201(20-40) Course ID:000048
Apprenticeship Studies
Complements specialized study in a national or state approved apprentice curriculum (i.e. 2000 hours per year taken in a supervised work environment and 144 hours per year of related classroom instruction). Pre-requisites: Completion of national/state certified apprenticeship program. Lecture/Lab: 20-40 credit hours (144 contact hours).

Components: Lecture Attributes: Technical

APT Applied Process Technology

APT 102(4) Course ID:004540
Process Fundamentals
Presents fundamental knowledge necessary for process operations. Develops an understanding of the basic principles of process operations. Covers the fundamental areas of physics, chemistry, and mathematics necessary to understand the complex relationship in industry. Includes topics on fluid behavior, fluid motion, piping and valves, and the laws and nature of heat. Pre-requisite: Test at MAT126 eligible or MAT065 or Consent of Instructor. Lecture: 2.0 credits (30 contact hours) Lab: 2.0 credits (120 contact hours).

Components: Laboratory, Lecture Attributes: Technical

APT 104(3) Course ID:004537
Rotating and Reciprocating Equipment
Presents fundamental knowledge necessary for process operations and entry-level maintenance personnel. Develops an understanding of mechanical energy and the way it is put to use in industrial applications. Covers various forms of energy and how this energy can be converted to perform work. Includes topics on operating instructions, basic troubleshooting skills, and basic maintenance skills typically performed by personnel on pumps, compressors, and prime movers. Pre-requisite: Test at MAT126 eligible or MAT 065 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Laboratory: 2.0 credits (120 contact hours).

Components: Laboratory, Lecture Attributes: Technical

APT 108(2) Course ID:004538
Process Chemistry
Presents fundamental knowledge of chemistry necessary for process operations. Focuses on the basics of chemistry as they apply to water treatment and hydrocarbon processing. Includes, but are not limited to: basic chemical terminology, molecular formulas, structural formulas, common chemical symbols, and the chemical nature of the operator’s job, work environment, and products. Pre-requisite: Test at MAT126 eligible or MAT 065 or Consent of Instructor. Lecture: 2.0 credits (30 contact hours).

Components: Lecture Attributes: Technical

APT 109(2) Course ID:004539
Stationary Equipment
Presents fundamental knowledge in the operation and troubleshooting of stationary equipment. Presents a strong 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 emergencies, and routine scheduled maintenance tasks. Includes topics on heat exchangers, heat transfer, coolers, 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
Presents an understanding of how to control and operate processes. Involves work on real life simulators to ensure an understanding of process operations has been achieved. Includes measurement fundamentals and control strategies as applied to unit operations, industrial chemical operations, and operating tactics and strategies. Provides basic instruction in process control instrumentation as it relates to the manufacturing operations and will promote smoother, more efficient control of automated systems. Pre-requisite: APT 108 with grade of “C” or greater OR Instructor Consent. Lecture/Lab: 4.0 credits (105 contact hours).

Components: Lecture Attributes: Technical

APT 144(4) Course ID:004542
Process Operations
Develops an understanding of modern processing techniques, practical examples of normal and abnormal operating situations, and advanced training in enhancing productivity while cutting operating costs. Provides 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 ensure an understanding of process operations. Includes unit operations, industrial chemical operations, and a variety of equipment used in industrial processes. Pre-requisite: APT 108 with grade of “C” or greater or Permission of Instructor. Lecture: 2 credits (30 contact hours). Laboratory: 2 credits (120 contact hours) 60:1 ratio.

Components: Laboratory, Lecture Attributes: Technical

Course Descriptions
APT 148(2) Course ID:004543
Process Applications
Develops an understanding of how to control and operate processes. Involves work on real life simulators to instore 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: APT108 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 normal and abnormal unit operations. Applications vary safety and protection equipment and procedures to unit operations. Pre-requisite: APT 108 with a grade of C or greater. Lecture: 4 credits (60 contact hours). Laboratory: 2 credits (120 contact hours).
Components: Laboratory, Lecture Attributes: Technical

APT 154(6) Course ID:005536
Power Plant Practice
Develops an understanding of power plant basics, systems, and equipment and how they are utilized to safely start-up, shutdown, control, and operate a power generation unit. Includes safe operating tactics, strategies, and procedures as they apply to normal and abnormal unit operations. Applications vary safety and protection equipment and procedures to unit operations. Pre-requisite: APT 108 with a grade of C or greater. Lecture: 4 credits (60 contact hours). Laboratory: 2 credits (120 contact hours).
Components: Laboratory, Lecture Attributes: Technical

APT 156(2) Course ID:005337
Power Plant Protection
Develops an understanding of how to safely start-up, shutdown, control and operate a power generation unit. Includes safe operating tactics, strategies, and procedures as they apply to normal and abnormal unit operations. Applications vary safety and protection equipment and procedures to unit operations. Pre-requisite: APT 108 with a grade of C or greater. Lecture: 1 credit (15 contact hours). Laboratory: 1 credit (60 contact hours).
Components: Laboratory, Lecture Attributes: Technical

APT 158(3) Course ID:005510
Lineman Technology I
Trains the student in the use of and/or assembly of materials, tools, and equipment common to the electric utility industry. Provides an overview of the energy delivery system, personal responsibility in regard to safety and job requirements, qualifies the student to climb poles, and trains the student to perform tasks typically required of entry-level apprentices. Pre-requisite: APT 108 or Consent of Instructor. Co-requisite: APT 159, EET 150, EET 151. Lecture: 3 credits (45 contact hours).
Components: Lecture 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, SCBAs, and specific hazardous materials. Pre-requisite: Consent of Instructor. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

APT 204(1) Course ID:008454
Safety Skills Training
Prepares the student to demonstrate a working knowledge of OSHA and DOT regulations as concerned with hazardous waste generators. This fundamental knowledge is necessary for process operations to qualify for hazardous response to incidents. The student will be trained in the required skills to qualify them for HAZWOPER Operations level response. The course study include, but are not limited to: Hazard Communication, Hazardous Operations level, personal protective equipment, working at elevated heights, respirators, SCBAs, and specific hazardous materials. (This course will be presented in a semester format.) Pre-requisite: APT 108 with a grade of C or greater. Co-requisite: APT 202. Laboratory: 1 credit (60 contact hours/60:1 ratio).
Components: Laboratory Attributes: Technical

APT 251(1) Course ID:001036
Power Plant Practice
Develops an understanding of power plant basics, systems, and equipment and how they are utilized to safely start-up, shutdown, control, and operate a power generation unit. Includes safe operating tactics and strategies, and procedures as they apply to normal and abnormal unit operations. Applications vary safety and protection equipment and procedures to unit operations. Pre-requisite: Instructor Consent. Lecture/Lab: 2.0 credits (75 contact hours).
Components: Lecture Attributes: Technical

APT 258(3) Course ID:005512
Lineman Technology II
Expands training in the use of and/or assembly of materials, tools, and equipment common to the electric utility industry. Provides pole top rescue techniques, Kilo-Watt Hour (KWH) meter reading, installation of overhead service, voltage testing, operation of bucket truck, splicing and other knowledge and skills typically required of intermediate-level apprentices. Pre-requisite: APT 158, APT 159, EET 150, EET 151. Co-requisite: APT 259. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

APT 259(4) Course ID:005513
Lineman Technology II Lab
Provides hands on experience in the use of and/or assembly of intermediate materials, tools, and equipment common to the electric utility industry. Provides an opportunity for the student to load/unload and set poles, operate bucket truck and other hydraulic equipment, and perform tasks typically required of intermediate-level apprentices. Pre-requisite: APT 158, APT 159, EET 150, EET 151. Co-requisite: APT 258. Laboratory: 4 credits (240 contact hours).
Components: Laboratory Attributes: Technical

APT 231(2 - 3) Course ID:001037
Instructor Consent Required
Special Problems in Applied Process Technologies
Provides additional experience in identified areas of student's need. The subject area and/or tasks must be approved by an assigned instructor. Must also have a component where the student is evaluated by an industry professional. Pre-requisite: Consent of Instructor. Discussion: 2.0 - 3.0 credits (45-135 contact hours).
Components: Discussion Attributes: Technical

APT 289(1 - 6) Course ID:001039
Instructor Consent Required
Cooperative Education Programming
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

ART Academic Related Instruction

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 design 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: Remedial - Mathematics

ART 104(3) Course ID:004346
Introduction to African Art
Examines the arts of Africa, including sculpture, painting, pottery, textiles, architecture, altar art, 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 reconstructs the assumptions shaping our approach. Addresses the processes (and problems) of collecting and displaying African art throughout the course. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Cultural Studies, AH - Arts and Humanities

ART 105(3) Course ID:000035
Ancient Through Medieval Art History
Surveys the historical development of art and architecture with primary emphasis on cultures of Egypt, Western Asia, Greece, Rome and Medieval Europe. Pre-requisite: English and Reading assessment scores above the developmental placement level or the successful completion of prescribed developmental course(s). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: AH - Arts and Humanities

ART 106(3) Course ID:000036
Renaissance Through Modern Art History
Surveys the historical development of Western art and architecture from the 14th Century through the present. Pre-requisite: English and Reading assessment exam scores above the developmental placement level or the successful completion of prescribed developmental course(s). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: AH - Arts and Humanities
ART 108(3) Course ID:007380
Introduction to World Art
Provides a basic overview of the study, language, history, and relevance of the visual art from worldcultures and designed primarily for non-art majors. Utilizes visually-enhanced lectures and may includeexemplary introductory visual experiences. Pre-requisite: RDG 185, ENC 091. Lecture: 3.0 credits (45 contacthours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

ART 110(3) Course ID:004110
Drawing I
Introduction to basic drawing skills and concepts. Projects in line, value, space and composition are anchored to topics that will be explored in a variety of media. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 112(3) Course ID:004111
2-Dimensional Design
Investigates design principles of balance, unity and variety, emphasis, and rhythm, and their application tothe elements of art, including line, shape, value and color. Uses a variety of media. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 121(3) School Art
Introduction to art and to the teaching of art in the lower (1-3) elementary grades.
Components: Laboratory, Lecture

ART 201(3) Course ID:000621
Ancient Art History
Examines the art and architecture of the ancient Mediterranean, focusing on one or more of the cultures of Greece, Rome, Egypt, and the Near East. Pre-requisite: (English and Reading assessment exam scores above the developmental placement level or the successful completion of prescribed developmental course (s)) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ART 202(3) Course ID:000457
Medieval Art History
Examines the architecture, sculpture, painting, and related arts from the rise of Christianity to thebeginnings of the Renaissance. Pre-requisite: (English and Reading assessment exam scores above the developmental placement level or the successful completion of prescribed developmental course (s)) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ART 203(3) Course ID:000186
Renaissance Art History
Examines the art in Europe from the 14th to 18th centuries, with emphasis on the major styles, artists, and developments from the early Renaissance through the age of the Baroque. Pre-requisite: (English and Reading assessment exam scores above the developmental placement level or the successful completion of prescribed developmental course (s)) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ART 204(3) Course ID:000086
Modern Art History
Examines the visual arts from the 18th through the 20th centuries, with primary emphasis on Europe and the United States. Pre-requisite: (English and Reading assessment exam scores above the developmental placement level or the successful completion of prescribed developmental course (s)) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ART 205(3) Course ID:015848
African American Art
Provides an introduction to African American Art. Examines the creation of the painting, sculpture, graphicarts, 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 RDG030 or RDG185, and ENC 091. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: 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 classroomapplication. ART 208 satisfies the state art requirement for general elementary teacher certification. (4 hours of field work required). Lecture: 1.0 credit hours; Laboratory: 2.0 credit hours.
Components: Laboratory, Lecture
Attributes: Other

ART 210(3) Drawing II
Advanced studio investigation of drawing techniques and concepts. Projects in line, value, composition and space will be investigated through individual development of style and expression, with extensive use of figure models. Pre-requisite: ART 110. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 211(3) 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 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) Painting I
Studio investigation of the technical and formal concerns of painting, including an understanding of color theory, materials, paint application, and image making. Pre-requisite: ART 110 or Consent of Instructor. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 221(3) Painting II
Includes advanced studio investigation of the technical and formal concerns of painting. Continues the development of individual style and expression. Prerequisite: ART 220. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 231(3) Jewelry/Metals I
Introduces the aesthetic and technical issues relating to basic metalsmithing techniques such as sawing, filing, piercing, forging, forming, soldering, and finishing. Employs demonstrations and hands-on work to present the concepts of metal manipulation. Emphasizes instructor-led critiques.
Components: Lecture
Attributes: Other

ART 232(3) Jewelry/Metals II
Continues the development of techniques introduced in Jewelry/Metals I. Emphasizes problem-solving skills and the development of personal creativity. Stresses the aesthetic and technical issues relating to raising, enameling, forging, casting, and more advanced sculptural processes. Includes discussion and critique as integral parts of the coursework. Pre-requisite: ART 231 or Consent of Instructor. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 240(3) Course ID:004117
Ceramics I
Introduces a variety of forming and finishing techniques used in working with clay and glaze. Hand building, wheel throwing, surface alteration and glazing will be investigated, along with a brief overview of ceramichistory, aesthetics and studio safety. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 241(3) Course ID:004118
Ceramics II
Continues studio investigation of ceramic techniques in hand-building and/or wheel throwing, glazing, surfacedeforation, glazing and firing. Continued development of individual style and personal expression. Pre-requisite: ART 240. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 251(3) Course ID:016141
Graphic Communication I
Provides an introduction to graphic design principles and methods and techniques used to incorporate type and images. Applies the elements and principles of design and basic color theories for design concepts. Pre-requisite or Co-requisite: ART 110 & ART 112, OR consent of instructor. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 252(3) Course ID:016142
Typography
Introduces core principles of typography through a series of progressively complex studio assignments supported by readings, lectures, and software tutorials. Pre-requisite: ART 251 OR consent of instructor. Lecture/Lab: 3.0 credit hours (90 contact hours).
Components: Lecture
Attributes: Other

ART 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 pagelayout, illustration, and image editing software. Includes discussion and critique as integral parts of the coursework. Pre-requisite: ART 251 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 creativity. 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, ART 130.  
Components: Lecture  
Attributes: Other

ART 261(3) Course ID: 008207  
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: 008208  
Printmaking I  
Introduces the possibilities and potential of the printmaking medium 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 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 289(3) Course ID: 006213  
Survival Skills for Artists  
Introduces skills needed to attain a higher level of education and/or career in the visual arts. Explores the wording and formatting of credentials and statements. Covers the critical language of art, digital and print 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  
Attributes: Other

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 101(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  
Attributes: Other

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 artistic terminology and vocabulary specific to the visual arts. Pre-requisite: ART 1001. Lecture: 1.0 credit (15 contact hours).  
Components: Lecture  
Attributes: Other

ART 1003(1) Course ID: 007383  
Introduction to Art History  
Introduces students to the developments in art from the prehistoric to contemporary eras. Pre-requisite: 1001. Lecture: 1.0 credit (15 contact hours).  
Components: Lecture  
Attributes: Other

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: 005755  
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)

AST Astronomy

AST 101(3) Course ID: 000058  
Frontiers of Astronomy  
Covers the life histories of stars, the nature of black holes and quasars, the origin of the universe, planets of the solar system, and the possibilities for extraterrestrial life. Includes observation-based activities. A one-semester introductory course for non-science majors. Credit is not given to students who have received credit for AST 191 or AST 192. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: SN - Science

AST 155(3) Course ID: 006341  
Astrobiology  
Examines topics related to the origins of planets, the requirements for life, the search for life away from Earth, the societal implications of discovering other forms of life, and the future of life on Earth and in space from a multidisciplinary perspective. Credit not available for both BIO 155 and AST 155. Pre-requisite: MT005 and ENCO91or equivalent as determined by KCTCS placement examination. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Course Equivalents: BIO 155  
Attributes: SN - Science

AST 191(3) Course ID: 000060  
The Solar System  
Emphasizes the nature, origin, and evolution of planets, satellites, and other objects in the Solar System. Includes historical astronomy, the naked eye phenomena of the sky, and modern solar system discoveries made by spacecraft. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: SN - Science

AST 192(3) Course ID: 000062  
Stars, Galaxies and the Universe  
Covers the Sun and the universe outside the Solar System. Has a principal theme of the origin and evolution of stars, galaxies and the universe at large. Includes topics of black holes, quasars, and the big bang model of the universe. Pre-requisite: MAT085 or a minimum ACT math score of 18. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: SN - Science

AST 195(1) Course ID: 000065  
Introductory Astronomy Laboratory  
Involves performance of exercises in both planetary and stellar astronomy, including Kepler’s Laws of Planetary Motion and Newton’s Laws of Motion. Examines the functions and limitations of different types of telescopes and mounts. Includes observation of the sun, moon, planets, binaries, galaxies, and nebulae. Pre-requisite or co-requisite: AST101 or AST191 or AST192: MAT 085 or two years of high school algebra; consent of the instructor. Lab: 1.0 (15 Contact Hours).  
Components: Laboratory  
Attributes: SL - Science Laboratory
ATE 100(1) Course ID:007113
Aviation Math
Covers mathematics related to the aerodynamic and physical forces acting on an aircraft in flight. Pre-requisite: Computer Literacy or Consent of Instructor. Lecture/Lab: 1.0 credit (40.5 contact hours).
Components: Lecture Attributes: Technical

ATE 102(3) Course ID:007114
Introduction to Aircraft Maintenance
Teaches knowledge and skills necessary in measuring, calculating, and documenting aircraft weight and balance. Provides instruction in the identification, cause, prevention, removal and treatment of corrosion. Includes interior and exterior cleaning of the aircraft. Pre-requisite: Computer Literacy or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture Attributes: Technical

ATE 104(3) Course ID:007115
Introduction to Aircraft Maintenance II
Provides instruction on the aerodynamic and physical forces acting on an aircraft in flight, basic electricity theory, concepts, components, physics, meter operation and use, battery construction and servicing, and basic principles of physics as related to aviation maintenance. Pre-requisite: Computer Literacy or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture Attributes: Technical

ATE 106(3) Course ID:007116
Introduction to Aircraft Maintenance III
Provides instruction in reading and interpretation of basic industrial and aircraft blue prints, basic handling and ground service techniques of the aircraft, the use of maintenance publications, aircraft mechanisms and limitations, and the use and completion of required forms and records. Pre-requisite: Computer Literacy or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture Attributes: Technical

ATE 108(3) Course ID:007117
Introduction to Aircraft Maintenance IV
Provides an understanding of basic hydraulic functions, the fabrication of tubing and flex hoses as well as their comparability. Includes instruction in structural inspection, materials and fasteners, and repair methods. Pre-requisite: Computer Literacy or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture Attributes: Technical

ATE 202(3) Course ID:007118
Aircraft Structures I
Covers the principles of sheet metal layout, bending, and rivet installation. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture Attributes: Technical

ATE 204(3) Course ID:007119
Aircraft Structures II
Provides instruction in the inspection, service, and repair of welded aircraft assemblies and structures, metalloid composite aircraft structures, including laminated and honeycomb structures, plastic materials, interforfinshings 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 airplane, and the rigging of primary, secondary, and auxiliary control surfaces. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture Attributes: Technical

ATE 208(3) Course ID:007121
Aircraft Structures IV
Provides instruction in the repair of wood structures, the inspection, testing, repair, selection, and installation of aircraft fabric covering, and the identification, application and inspection of aircraft finishing materials. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture Attributes: Technical

ATE 222(3) Course ID:007122
Aircraft Systems I
Covers the repair of hydraulic and pneumatic power systems components. Includes the inspection, check, service, and repair of landing gear, retraction systems, shock struts, brakes, wheels, tires, and steering system. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture Attributes: Technical

ATE 224(3) Course ID:007123
Aircraft Systems II
Covers checking, inspecting, troubleshooting and repair of aircraft electrical system and system components. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture Attributes: Technical

ATE 226(3) Course ID:007124
Aircraft Systems III
Covers checking, inspection, servicing, repair and troubleshooting of fuel systems and components, heating, cooling, air conditioning, pressurization, and oxygen systems; and rain and ice control and removal systems. Includes types of fuels used in various aircraft and a discussion of the problems associated with fueling and the maintenance of the fuel 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 228(3) Course ID:007125
Aircraft Systems IV
Includes discussion, inspection, and troubleshooting of navigational and communication systems, fire detection and extinguishing systems. Covers the inspection, troubleshooting, and repair of heading, speed, altitude, time, attitude, temperature, pressure and position indicating systems and installation of instruments. Provides the inspection, testing and servicing of transponder and navigation instruments. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture Attributes: Technical

ATE 242(3) Course ID:007126
Aircraft Powerplants I
Covers the theory and development of the aircraft internal combustion engine as well as instruction in the use of engine control 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 installations. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture Attributes: Technical

ATE 246(3) Course ID:007128
Aircraft Powerplants III
Includes construction, repair and overhaul of turbine engines. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture Attributes: Technical

ATE 248(3) Course ID:007129
Aircraft Powerplants IV
Includes construction, repair, and overhaul of turbine engines. Covers the operation and inspection of turbine engines. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture Attributes: Technical

ATE 252(3) Course ID:007130
Aircraft Powerplant Systems I
Covers checking, inspecting, troubleshooting and repair of engine lubrication system components, and 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 Powerplant Systems II
Covers troubleshooting, servicing and repair of fluid flow indicating systems and repair of engine temperature, pressure, and rpm indicating systems. Includes the operation and inspection 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 Powerplant Systems III
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
Aircraft Powerplant Systems IV
Course ID: 007133
Covers the operation, inspection and repair of fuel systems and components of aircraft fuel systems and fuel metering systems. Includes the inspection and repair of engine cooling system components, engine exhaust system components, and engine fire detection and extinguishing systems. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

Introduction To Aviation Electronics
Course ID: 006783
Provides instruction in basic to intermediate electronics and specifically how they relate to aviation maintenance technology. Lecture: 3.0 credit hours (45 contact hours).

Components: Lecture
Attributes: Pilot Course, Technical

Manual Drive Train and Axles Lab
Course ID: 001052
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: ATE 131 Lab: 2.0 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

Manual Drive Train and Axles
Course ID: 001053
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: ATE 131 Lab: 2.0 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

Suspension and Steering Lab
Course ID: 001059
Introduces skills necessary to diagnose and repair automotive advanced ignition, fuel, and emission systems, including related components. 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: ATE 140 Lab: 2.0 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

Automatic Transmission/Transaxle Lab
Course ID: 001054
Includes the theory, component identification, application, operation, service and repair of the automatic transmission components. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

Automatic Transmission/Transaxle
Course ID: 001055
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 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

Basic Fuel and Ignition Systems Lab
Course ID: 001056
Pre-requisite or Co-requisite: (AUT 140 and AUT 141) (45 contact hours).

Components: Lecture
Attributes: Technical

Basic Fuel and Ignition Systems
Course ID: 001057
Provides an in-depth study of principles of operation, service and repair of manual transmissions, wheel alignment, and specifically how they relate to aviation maintenance technology. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

Co-op provides supervised on-the-job work experience related to the student's educational objectives. Students who participate in the Cooperative Education program receive compensation for their work. Pre-requisite: Permission of the Instructor.

Components: Co-op
Attributes: Technical

Computer Control Systems and Diagnosis
Course ID: 001064
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

Hybrid and Electric Vehicle Technology
Course ID: 006889
Focuses on the theories, principles, and diagnosis relating to hybrid automobiles. Pre-requisite: ADX 120 and ADX 121 and ADX 260 and ADX 261. Co-requisite: AUT 276. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

Hybrid and Electric Vehicle Technology Lab
Course ID: 006890
Focuses on the theories, principles, and diagnosis relating to hybrid automobiles. 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 275 Lab: 2.0 credits (90 contact hours).

Components: Laboratory
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 Carpenter
This course covers the basic aspects of framing, roofing, window, door, and stair maintenance. The student will receive training in the proper use of ladders and in the handling and storage of building materials. Pre-requisite: 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 ceramic 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

AVN Aviation

AVN 111(3) Course ID:016447
Ground School Rotary Wing
Provides aeronaughtical knowledge necessary to prepare student pilots to successfully complete Federal Aviation Administration (FAA) Private Pilot written examination. Course completion standards require that the student successfully complete the Private Pilot course and maintain the Private Pilot Certificate with helicopter rating. At the successful completion of this course the student will have gained the aeronautical knowledge and experience necessary to advance to Private Pilot-Rotary: Flight II, Pre-requisite or Co-requisite: AVN 111 with C or better. Lecture/Lab: 4.0 credits (105 contact hours)
Components: Lecture
Attributes: Technical

AVN 112(4) Course ID:016448
Private Pilot Helicopter: Flight I
Provides first twenty-five dual and/or solo flight hours leading to FAA private pilot rotary wing certification.FAA approved flight training syllabus (Lab). A review of elementary flight operations including basic aerodynamics, elementary radio navigation, air traffic control procedures, cross-country operations, and solo flight. Associated ground instruction includes a review of knowledge areas required for completion of the Private Pilot Certificate with helicopter rating. At the successful completion of this course the student will have gained the aeronautical knowledge and experience necessary to advance to Private Pilot-Rotary: Flight II, Pre-requisite or Co-requisite: AVN 111 with C or better. Lecture/Lab: 4.0 credits (105 contact hours)
Components: Lecture
Attributes: Technical

BAS Business Administration System

BAS 110(3) Course ID:016239
Worksheets in Business Applications
Focuses on the application of worksheet features to business practices. Provides students with the knowledge and skills necessary to apply worksheet functions to derive charts, graphs and tables, and business data, and identify issues of business data analysis tools. Pre-requisite: Computer Literacy or Consent of Instructor. Lecture: 3 credits (45 contact hours)
Components: Lecture
Attributes: Technical

BAS 120(6) 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: Technical

BAS 125(3) Course ID:016879
Social Media Marketing: Fundamental Concepts, Skills, and Strategies
Cultivates a basic to intermediate understanding of social media history, terminology, and concepts as they apply to the marketing and business sectors. Integrates a working knowledge of platform management and integrates social media marketing strategy. Lecture: 3.0 credits (45 contact hours). Pre-requisite: Placement scores for college level math 65 or higher level math or Consent of Instructor. Lecture: 3.0 credits (45 contact hours)
Components: Lecture
Attributes: Technical

BAS 126(3) Course ID:016880
Social Media Marketing: Project Management and Implementation Strategies
Prepares students to create and launch comprehensive social media marketing campaigns, applicable to any business or organization. Learn intermediate social media strategies and best practices for engagement. Introduces students to social media policy, procedure, and engagement guidelines that will explain how all stakeholders and departments in an organization should monitor and participate in social media interactions. Pre-requisite: BAS 125. Lecture: 3.0 credits (45 contact hours)
Components: Lecture
Attributes: Technical

BAS 155(3) Course ID:000100
Personal Selling
Introduces the professional selling process involving a series of interrelated activities with emphasis on planning and delivery of sales presentations and simulation and role playing of sales techniques. Examines the selling process including--prospecting, qualifying, presenting, answering objections, closing, and 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. Pre-requisites: Basic understanding of the complexities of business and the impact on communities and their economies. Lecture: 3.0 credits (45 contact hours)
Components: Lecture
Attributes: 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, and management principles. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours)
Components: Lecture
Attributes: Also Offered in Modules, Technical

BAS 208A(0.5) Course ID:000395
Small Business Management
Introduces information necessary to managing growth in a small business. Pre-requisite: BAS 208B or Consent of Instructor. Lecture: 0.5 credit (7.5 contact hours)
Components: Lecture
Attributes: 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 long-term capital budgeting. Uses financial ratios, constructs pro forma financial statements, computes 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: 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.
Components: Lecture
Attributes: Also Offered in Modules, Technical
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 socioeconomic, 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 283 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Course Also Offered in Modules, Technical

**BAS 280(1 - 4) Course ID: 004474**

**Business Internship**

Provides an opportunity for a work experience related to the student’s educational objective and concept learned in courses required for a career. (One hour of credit, up to a maximum of four credit hours, awarded for every 40 hours of approved work experience, not to exceed 160 hours). Pre-requisite: Sophomore Standing or Consent of Instructor. Practicum/Internship: 1.0 - 4.0 credits Components: Practicum Attributes: Technical

**BAS 282(3) Course ID: 000109**

**Principles of Marketing**

Introduces marketing functions as it applies to various types of business organizations with attention to the marketing concept, including the marketing mix of product, price, promotion, and distribution decisions; international marketing; and social responsibility. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Course Also Offered in Modules, Technical

**BAS 283(3) Course ID: 000110**

**Principles of Management**

Examines the functional framework of planning, organizing, leading, and controlling as it is utilized to introduce the management process. Introduces the interdisciplinary nature of management with the inclusion of relevant aspects of human behavior and rational decision making. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: 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 Prerequisite: BAS 259(3) or Consent of Instructor. 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**

Examines principles of management with the inclusion of relevant aspects of human behavior and rational decision making. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Course Also Offered in Modules, Technical

**BAS 288(3) Course ID: 000115**

**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/technical knowledge 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 289(3) Course ID: 000116**

**Problems in Marketing and Management**

Examines various types of business organizations with attention to 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, Technical

**BAS 291(3) Course ID: 000117**

**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)**

**Principles of Finance**

Examines fundamentals of financial concepts and valuation, corporate decisions (with emphasis in financial instruments), the banking system, financial planning, money and interest rates, and capital structure and investments. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Technical

**BAS 294(3)**

**Money and Financial Institutions**

Examines 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 taken concurrently. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Technical

**BAS 295(3)**

**International Finance**

Examines retail structure, merchandising, promotions, store control, and decision. Examines principles of management with the inclusion of relevant aspects of human behavior and rational decision making. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Technical

**BAS 299(1 - 3)**

**Instructor Consent Required**

**Selected Topics in Business Management: (Option Topic)**

Interprets technological developments, new business issues, and/or business topics as they relate to the student’s chosen field. Pre-requisite: Consent of Instructor. Lecture: 1.0 - 3.0 credits (15-45 contact hours). Components: Lecture Attributes: Technical

**BAS 1201(0.8)**

**The Financial Planning Process**

Examines the fundamental concepts, principles, and practices of operations management. Introduces and examines operations management careers, terminology and concepts in both manufacturing and service organizations. 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 1202(0.7)**

**Managing Your Money**

Examines the fundamental concepts, principles, and practices of operations management. Introduces and examines operations management careers, terminology and concepts in both manufacturing and service organizations. 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 1551(1)**

**Selling as a Profession**

Interprets technological developments, new business issues, and/or business topics as they relate to the student’s chosen field. Pre-requisite: Consent of Instructor. Lecture: 1.0 - 3.0 credits (15-45 contact hours). Components: Lecture Attributes: Technical

**BAS 1203(1)**

**Managing Investments**

Examines the fundamental concepts, principles, and practices of operations management. Introduces and examines operations management careers, terminology and concepts in both manufacturing and service organizations. 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 1204(0.5)**

**Protecting Your Resources**

Examines the fundamental concepts, principles, and practices of operations management. Introduces and examines operations management careers, terminology and concepts in both manufacturing and service organizations. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours). Components: Lecture Attributes: Technical

**BAS 1651(1)**

**Selling as a Profession**

Interprets technological developments, new business issues, and/or business topics as they relate to the student’s chosen field. Pre-requisite: Consent of Instructor. Lecture: 1.0 - 3.0 credits (15-45 contact hours). Components: Lecture Attributes: Technical

**BAS 1203(1)**

**Managing Investments**

Examines the fundamental concepts, principles, and practices of operations management. Introduces and examines operations management careers, terminology and concepts in both manufacturing and service organizations. 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 1204(0.5)**

**Protecting Your Resources**

Examines the fundamental concepts, principles, and practices of operations management. Introduces and examines operations management careers, terminology and concepts in both manufacturing and service organizations. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours). Components: Lecture Attributes: Technical

**BAS 1551(1)**

**Selling as a Profession**

Interprets technological developments, new business issues, and/or business topics as they relate to the student’s chosen field. Pre-requisite: Consent of Instructor. Lecture: 1.0 - 3.0 credits (15-45 contact hours). Components: Lecture Attributes: Technical
of selling in our market-oriented economy. Incorporates and considers the legal and ethical aspects of personal selling, Lecture: 1.0 credit (15 contact hours).

Components: Lecture

BAS 1552(1) Course ID:016640
Successful Selling and Other Special Selling Topics
Examines the importance of relationship building strategies. Research and describe the product, the producer, the competition and consumer buying behavior. Pre-requisite: BAS 1551. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

BAS 1553(1) Course ID:016641
Dynamics of Selling
Covers and applies the basic steps in the selling process. Pre-requisite: BAS 1552. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

BAS 1601(0.6) Course ID:005145
The Foundations of Business
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 1700(0.5) Course ID:006221
Current Small Business Managerial Issues
Presents students with issues facing small businesses with an emphasis on entrepreneurship management. Pre-requisite: BAS 1705 or instructor consent. Lecture: 0.5 credit (7.5 contact hours).

Components: Lecture

BAS 2121(1) Course ID:006106
Financial Statement Analysis
Presents 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 each separate entity as it applies to state and federal regulations. Integrates basic legal terminology. Lecture: 0.5 credit (7.5 contact hours).

Components: Lecture

AS 2672(0.3) 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
Examines 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 market 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
Product and Market Strategies
Examines essential information to develop market and marketing strategies for the small business marketing plan. Pre-requisite: BAS 2824 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 information 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 organizing as a 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 concepts 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 credit (7.5 contact hours).
Components: Lecture

BAS 2836(0.5) Course ID: 005824
Special Concerns in Management
Explores international management and succeeding in one's career. 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 283 or prior supervisory experience. Lecture: 0.6 credit (9 contact hours).
Components: Lecture

BAS 2842(0.6) Course ID: 005826
Empowerment and Motivation
Examines the theories of motivation and strengthens the manager's ability to guide institutions and followers through periods of change. 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 the 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 2884(0.6) Course ID: 005163
Communicating for Interdependence
Identifies the use of effective communication techniques that increase interdependence in workgroups. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2885(0.6) Course ID: 005164
Teamwork and Synergy
Emphasizes the power of synergy and the implementation of effective team environments. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BAS 2893(0.75) Course ID: 005164
Planning and Scheduling
Examines the importance of planning to organizational success with regards to inventory levels and scheduling. Pre-requisite: BAS 2890 or Consent of Instructor. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture

BAS 2893(0.75) Course ID: 005170
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 2893 or Consent of Instructor. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture

BAS 2895(1) Course ID: 006103
Moral Philosophy and Business
Examines the nature of morality and the ethical philosophy and nature of business leadership and decisionmaking. Pre-requisite: BAS 283 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

BAS 2902(1) Course ID: 006104
American Business
Examines the nature of capitalism, the social-government relationship, including the business-government-society relationship. Recognizes the importance of decision making, social cost, corporate responsibility, governance, and the role of government in business. Pre-requisite: BAS 2901 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

BAS 2903(1) Course ID: 006105
The Organization and Its People
Examines the business leadership-government-society relationship, including the challenges and issues today's workplace environment with an emphasis on moral choices faced by employees. Pre-requisite: BAS 2902 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

BAS 2911(1) Course ID: 016642
Retailing Strategies and Store Management
Examines retail structure, store control, and decision making aspects of retail development and the impact mass merchandisers have on the retailing environment. Examines current trends and influences on retailing. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

BAS 2912(1) Course ID: 016643
Introduction to Retailing
Examines the historical aspects of retail development and the impact mass merchandisers have on the retailing environment. Examines current trends and influences on retailing. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

BAS 2901(1) Course ID: 006105
American Business
Examines the nature of capitalism, the social-government relationship, including the business-government-society relationship. Recognizes the importance of decision making, social cost, corporate responsibility, governance, and the role of government in business. Pre-requisite: BAS 2901 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

BAS 2902(1) Course ID: 006104
American Business
Examines the nature of capitalism, the social-government relationship, including the business-government-society relationship. Recognizes the importance of decision making, social cost, corporate responsibility, governance, and the role of government in business. Pre-requisite: BAS 2901 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

BAS 2903(1) Course ID: 006105
The Organization and Its People
Examines the business leadership-government-society relationship, including the challenges and issues today's workplace environment with an emphasis on moral choices faced by employees. Pre-requisite: BAS 2902 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

BAS 2911(1) Course ID: 016642
Retailing Strategies and Store Management
Examines retail structure, store control, and decision making aspects of retail development and the impact mass merchandisers have on the retailing environment. Examines current trends and influences on retailing. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
making. Identifies fundamental principles of store organization. Explains the social, legal and ethical responsibilities involved in retailing. Pre-requisite: BAS 2911. Lecture: 1.0 credits (15 contact hours).

**Components: Lecture**

**BAS 2931(1)** Course ID:016645

**Merchandise Management**

Demontrates how to use appropriate merchandising and promotional tools. Identifies and explains thermographic and psychographic characteristics of the target market as well as the opportunities and risks inconducing business with foreign markets. Pre-requisite: BAS 2912. Lecture: 1.0 credit (15 contact hours).

**Components: Lecture**

**BIO 113(1)** Course ID:000133

**Introduction to Biology Lab**

Emphasizes basic laboratory studies of structure, function and interactions of living organisms including cell theory, genetics, energetics, evolution, and ecology. Pre-requisite: Co-requisite: BIO 112. Laboratory: 1 credit (30 contact hours).

**Components: Laboratory**

Attributes: SL - Science, Course Also Offered in Modules

**BIO 114(3)** Course ID:000167

**Biology I**

Examines basic biological concepts such as cell structure and function, metabolism, the chemical basis of biology, protein synthesis, genetics, and evolution with emphasis placed on the cellular level. Co-requisite: BIO 115. Lecture: 3.0 credits (45 contact hours).

**Components: Lecture**

Attributes: SN - Science

**BIO 115(1)** Course ID:000165

**Biology Laboratory I**

A two-hour laboratory to be offered concurrently with BIO 114. Designed to acquaint the student with the use of analytical techniques in biology, theory, and methods involved in experimentation, in order to facilitate greater understanding of concepts presented in lecture and the way in which information is gathered in science. Laboratory: 1 credit (30 contact hours). Co-requisite: BIO 114.

**Components: Laboratory**

Attributes: SL - Science Laboratory

**BIO 116(3)** Course ID:000168

**Biology II**

Examines basic biological concepts such as ecology, biogeochemical cycling, trophic structures, sustainability and environmental impacts by humans. Pre-requisite: BIO 115. Lecture: 3.0 credits (45 contact hours).

**Components: Lecture**

Attributes: SN - Science

**BIO 117(1)** Course ID:000166

**Biology Laboratory II**

A two-hour laboratory to be offered concurrently with BIO 116. Designed to acquaint the student with the use of analytical techniques in biology, theory, and methods involved in experimentation in order to facilitate greater understanding of concepts presented in lecture and the way in which information is gathered in science. Laboratory: 1 credit (30 contact hours). Co-requisite: BIO 116.

**Components: Laboratory**

Attributes: SL - Science Laboratory

**BIO 118(3)** Course ID:004988

**Microbes and Society**

An introduction to the science of microbiology addressing the role of microorganisms in nature and in human wellfare. Contemporary topics will include infectious diseases, genetic engineering, the environment and biocatalyst warfare. Lecture: 3 credits (45 contact hours).

**Components: Lecture**

Attributes: SN - Science

**BIO 120(3)** Course ID:000126

**Human Ecology**

Interrelationships among humans, other organisms and the environment including principles of energy and matter, resource use, biogeochemical cycling, trophic structures, sustainability and environmental impacts by humans. Lecture: 3 credits (45 contact hours).

**Components: Lecture**

Attributes: SN - Science

**BIO 121(1)** Course ID:005191

**Introduction to Ecology Laboratory**

Basic laboratory studies of interactions among living organisms and their environment including biogeochemical cycling, trophic structures, sustainability and human impacts on the environment. Pre-requisite: Co-requisite: BIO 120 or BIO 124. Laboratory: 1 credit (30 contact hours).

**Components: Laboratory**

Attributes: SL - Science Laboratory

**BIO 122(3)** Course ID:000175

**Introduction to Conservation Biology**

Historical and current perspectives on species extinction and global loss of biological diversity represented. Methods used to conserve plant and animal life in the United States and around the world are surveyed, and conservation activities and needs are discussed in societal, cultural, economic, and political contexts. Pre-requisite: High school biology recommended. Lecture: 3 credits (45 contact hours).

**Components: Lecture**

Attributes: SN - Science

**BIO 124(3)** Course ID:000177

**Principles of Ecology**

Study of the principles and interrelationships between organisms and their environment with emphasis on the analytical and statistical methods of ecology. Lecture: 3 credits (45 contact hours).

**Components: Lecture**

Attributes: SN - Science

**BIO 130(3)** Course ID:000170

**Aspects of Human Biology**

Aspects of human biology will be introduced from the molecular level to the integrated whole. Attention will be given to the biological bases of various health and wellness issues. Lecture: 3 credits (45 contact hours).

**Components: Lecture**

Attributes: SN - Science

**BIO 132(2)** Course ID:006819

**Foundations of Cell Biology**

Creates a foundation of biology and chemistry as preparation for higher level biology courses. Pre-requisite: Co-requisite: Placement above or concurrent enrollment in RDG 30 and (placement above or concurrent enrollment in ENC 91) and (placement above or concurrent enrollment in MAT 65) or consent of instructor. Lecture: 2.0 credits (30 contact hours).

**Components: Lecture**

Attributes: SN - Science

**BIO 135(4)** Course ID:000169

**Basic Anatomy and Physiology with Laboratory**

Presents the fundamental structure of the human body and the physiological mechanisms involved in normal functioning as 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 exam score above the score range for MAT 065 or successful completion of the prescribed developmental course(s) of 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 to study 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 thermorhaphy, physiology, and reproduction of plants with emphasis on flowering plants. Pre-requisite: BIO 112 or consent of instructor. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science

BIO 142(3) Course ID:000128
Zoology
The anatomy, physiology, and biodiversity of animals emphasizing life processes, the cell, development, heredity, body systems, evolution, taxonomy, phylogeny and ecology. Pre-requisite: BIO 112 or consent of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SN - Science

BIO 143(4) Course ID:000180
Zoology with Laboratory
The anatomy, physiology, and biodiversity of animals emphasizing life processes, the cell, development, heredity, body systems, evolution, taxonomy, phylogeny and ecology. Pre-requisite: BIO 112 or consent of instructor. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science

BIO 144(3) Course ID:002215
Insect Biology
Presents an overview of the biology of both beneficial and detrimental insects including physiology, behavior, ecology, and evolution. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SN - Science

BIO 148(3) Course ID:016082
Introductory Biology I
BIO 148 introduces the student to the biological mechanisms operating at the molecular cellular and population level that contribute to the origin maintenance and evolution of biodiversity including the origins and history of the evolutionary process. Course material is presented within a phylogenetic context emphasizing the shared history of all living organisms on earth through common ancestry. The first semester of an integrated one-year sequence (BIO 148 and BIO 152). Pre-requisites: Math ACT of 23 or above or MA 109, past or current enrollment in CHE 105. (KCTCS equivalents: MA 109=MAT 150; CHE 105=CHE 170). Lecture: 3.0 credits (45 contact hours)

Components: Lecture
Attributes: University Course (University of Kentucky)

BIO 150(3) Course ID:000135
Principles of Biology I
Presents knowledge of biological principles at the cellular and molecular levels, similarities and differences in structure and function of simple and complex cells and theories on the origin and evolution of biological systems. Part one of a two semester sequence (BIO 150 and BIO 152). Lecture: 3 credits (45 contact hours).

Components: Lecture, Lecture
Attributes: SN - Science

BIO 151(2) Course ID:000136
Principles of Biology Laboratory I
Includes studies of cellular and molecular biology, Laboratory: 2 credits (60 contact hours). Pre-requisite: BIO 150 or Concurrent enrollment.

Components: Laboratory
Attributes: SL - Science Laboratory

BIO 152(3) Course ID:000137
Principles of Biology II
Presents knowledge of organismal, population and community biology. Part two of a two semester sequence (BIO150 and BIO 152), Lecture: 3 credits (45 contact hours). Pre-requisite: BIO 150 or consent of instructor.

Components: Lecture
Attributes: SN - Science

BIO 153(2) Course ID:000138
Principles of Biology Laboratory II
Includes organismal, population and community biology. Laboratory: 2 credits (60 contact hours). Pre-requisite: BIO 152 or concurrent enrollment.

Components: Laboratory
Attributes: SL - Science Laboratory

BIO 155(1) Course ID:016428
Introductory Biology Laboratory
This course is designed to provide a broad introduction into the data, results, and information associated with biological research, and into some of the analytical approaches used to test biological hypotheses. Communication of these aspects of biological research is crucial, and much of this lab course will be focused on the development of effective writing skills for the delivery of this information. Pre-requisite: Math ACT of 23 or above or MA 109, past or current enrollment in CHE 105 (KCTCS equivalents: MA 109=MAT 150; CHE 105=CHE 170). Laboratory: 1 credit hour (2 contact hours).

Components: Laboratory
Attributes: University Course (University of Kentucky)

BIO 155(3) Course ID:006342
Astrobiology
Examines topics related to the origins of planets, the requirements for life, the search for life away from Earth, the societal implications of discovering other forms of life, and the future of life on Earth and inspace from a multidisciplinary perspective. Credit not available for both BIO 155 and AST 155. Pre-requisite: MT 065 and ENC 091 or equivalent as determined by KCTCS placement examination. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Course Level Equivalents: AST 155

BIO 209(2) Course ID:000142
Introductory Microbiology Laboratory
Lecture exercises in general microbiology. Laboratory: 4 hours. Pre-requisite: one unit of chemistry or consent of instructor. BIO 200/226 should be taken concurrently.

Components: Laboratory
Attributes: SL - Science Laboratory

BIO 218(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: SL - Science Laboratory, SN - Science, Course Also Offered in Modules

BIO 226(3) Course ID:000140
Principles of Microbiology
Introduction to fundamental microbiological principles and techniques emphasizing structural functional, ecological, and evolutionary relationships among microorganisms. Pre-requisite: BIO 112 or consent of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SN - Science

BIO 227(3) 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, SN - Science

BIO 295(1 - 3) Course ID:000195
Instructor Consent Required
Independent Investigation In Biology
Investigates specific topics or problems in the field of the biological sciences. May be repeated for a maximum of six credits. Laboratory varies with credit. Pre-requisite: Permission of Instructor. Laboratory: Varies with credit.

Components: Independent Study, Lecture
Attributes: Other

BIO 299(1 - 3) Course ID:000197
Instructor Consent Required
Selected Topics In Biology (Topic)
Addresses recent trends and discoveries in selected areas of biology in a seminar format. Emphasizes discussion and critical thinking. May be repeated with different subtitles for a maximum of six credits. Pre-requisite: Permission of Instructor. Lecture: Varies with credit.

Components: Lecture
Attributes: Other

BIO 1121(0.75) Course ID:006122
Science, Biochemistry, and Hierarchy of Life
Covers basic studies of the scientific method; the molecules of life and the hierarchy of life. Lecture: 0.75 credit (11.25 contact hours).

Components: Lecture

BIO 1122(0.75) Course ID:006123
Cell Structure, Function, Energetics, and Cell Division
Covers basic studies of cell structure, function, energetics, and cell division. Pre-requisite: BIO 1121. Lecture: 0.75 credit (11.25 contact hours).

Components: Lecture

BIO 1123(0.75) Course ID:006124
Classification System, Genetics, and Evolution
Covers basic studies of the classification system, genetics, and evolution. Pre-requisite: BIO 1122. Lecture: 0.75 credit (11.25 contact hours).

Components: Lecture

BIO 1124(0.75) Course ID:006125
Ecology and Population Dynamics
Covers basic studies of ecology and population dynamics. Pre-requisite: BIO 1123. Lecture: 0.75 credit (11.25 contact hours).

Components: Lecture

BIO 1201(1) Course ID:016844
Human Ecology Principles
Parent description: Interrelationships among humans, other organisms and the environment including principles of 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 inspace from a multidisciplinary perspective. Credit not available for both BIO 155 and AST 155. Pre-requisite: MT 065 and ENC 091 or equivalent as determined by KCTCS placement examination. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SN - Science
1303. Lecture: 0.75 credits (11.25 contact hours).

**Course ID:016646**

**Course: Population Dynamics**

*Parent description: Interrelationships among humans, other organisms and the environment including principles of energy and matter, resource use, biogeochemical cycling, trophic structures, sustainability and environmental impacts by humans. This module emphasizes population dynamics and interrelationships among organisms in food webs and human impact on the environment. Pre-requisite: BIO 1201. Lecture: 1.0 credit (15 contact hours). Components: Lecture*

**Course ID:016647**

**Course: Pollution Impacts**

*Parent description: Interrelationships among humans, other organisms and the environment including principles of energy and matter, resource use, biogeochemical cycling, trophic structures, sustainability and environmental impacts by humans. This module emphasizes human impacts on ecosystems. Agriculture, toxic risks, pollution, and waste management are covered. Pre-requisite: BIO 1202. Lecture: 1.0 credit (15 contact hours). Components: Lecture*

**Course ID:016648**

**Course: Science, Cell & Chemistry Basics**

*Aspects of human biology from the molecular level to the integrated whole. Attention given to the biological basis of various health and wellness issues. This module covers the scientific method, basic biochemistry, levels of biological organization, eukaryotic cell structure and function, cellular respiration, and an overview of the interrelatedness of systems, functions and disorders. Lecture: 0.75 credits (11.25 contact hours.). Components: Lecture*

**Course ID:016649**

**Course: Health Issues**

*Aspects of human biology from the molecular level to the integrated whole. Attention given to the biological basis of various health and wellness issues. This module covers the biological basis of health issues with a focus on the cardiovascular, immune, lymphatic, and respiratory systems. Pre-requisite: BIO 1301. Lecture: 0.75 credits (11.25 contact hours). Components: Lecture*

**Course ID:016650**

**Course: Body Systems and Disease Prevention**

*Parent Course Description: Aspects of human biology will be introduced from the molecular level to the integrated whole. Attention will be given to the biological basis of various health and wellness issues. Module Description: Covers the health-related factors with an emphasis on the digestive, endocrine, muscular, nervous, skeletal, and urinary systems. Discusses health promotion and disease prevention with discussion on personal behavior and environmental factors. Pre-requisite: BIO 1302. Lecture: 0.75 credits (11.25 contact hours). Components: Lecture*

**Course ID:016651**

**Course: Genetics & Reproduction**

*Parent Course Description: Aspects of human biology will be introduced from the molecular level to the integrated whole. Attention will be given to the biological basis of various health and wellness issues. Module Description: Covers the inter-relatedness of the levels of biological organization with an emphasis on inheritance and genetic inheritance. Emphasizes cell division processes, sexuality, pregnancy, embryonic development, birth control, and sexually transmitted diseases. References material from the prerequisite modules in the series as the inter-relatedness of the levels of biological organization, including body systems, is a course competency. Pre-requisites: BIO 1303. Lecture: 0.75 credits (11.25 contact hours). Components: Lecture*

**Course ID:016626**

**Course: Cells, Skin & Bones**

*Presents the fundamental structure of the human body including Cell and Cellular Physiology, the Integumentary System, and the Skeletal System. Covers the physiological mechanisms involved in normal functioning presented through lecture and student participation in laboratory activities. Pre-requisite: Reading and English assessment exam scores above the KCTCS developmental level and a mathematics placement score above the score of MAT 065 or successful completion of the prescribed developmental course(s) or consent of the instructor. Laboratory: 0.75 credits (11.25 contact hours). Clinical: 0.25 credits (7.5 contact hours). Components: Clinical, Laboratory*

**Course ID:016627**

**Course: Muscles & Regulators & Generation**

*Presents the fundamental structure of the human body including the Muscular System, Nervous System, Endocrine System, and Reproductive System. Covers the physiological mechanisms involved in normal functioning presented through lecture and student participation in laboratory activities. Pre-requisite: BIO 1351 or Consent of Instructor. Lecture: 0.75 credits (11.25 contact hours). Laboratory: 0.25 credits (7.5 contact hours). Components: Laboratory, Lecture*

**Course ID:016628**

**Course: Lymph, Blood & Gases**

*Presents the fundamental structure of the human body including the Lymphatic System, Cardiovascular System, and Respiratory System. Covers the physiological mechanisms involved in normal functioning presented through lecture and student participation in laboratory activities. Pre-requisite: BIO 1352 or Consent of Instructor. Components: Laboratory, Lecture*

**Course ID:016629**

**Course: Digestive, Renal & Electrolytes**

*Presents the fundamental structure of the human body including the Digestive System, the Urinary System, and Water and Electrolyte Balance. Covers the physiological mechanisms involved in normal functioning presented through lecture and student participation in laboratory activities. Pre-requisite: BIO 1353 or Consent of Instructor. Laboratory: 0.75 credits (11.25 contact hours). Laboratory: 0.25 credits (7.5 contact hours). Components: Laboratory, Lecture*

**Course ID:006651**

**Course: 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 activities. 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*

**Course ID:006652**

**Course: Tissue, Skin & Skeleton**

*Provides an introduction to the structure and function of major tissue types and anatomy and physiology of the integumentary and skeletal systems as well as common dysfunctions of these. Pre-requisite: BIO 1371. Lecture/Lab: 1.0 credit (18.75 contact hours). Components: Lecture*

**Course ID:006653**

**Course: 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 the muscular and metabolic anodermovascular systems. Pre-requisite: BIO 1371 and BIO 1372. Lecture/Lab: 1.0 credit (18.75 contact hours). Components: Lecture*

**Course ID:006654**

**Course: 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*

**Course ID:006655**

**Course: Endocrine and Reproduction**

*Provides an introduction to the anatomy and physiology of the endocrine and reproductive systems. Pre-requisite: BIO 137. Lecture/Lab: 1.0 credit (18.75 contact hours). Components: Lecture*

**Course ID:006656**

**Course: 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*

**Course ID:006657**

**Course: 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*

**Course ID:006658**

**Course: 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: 1.0 credit (18.75 contact hours). Components: Lecture*

**Course ID:006760**

**Course: 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 areas studies-natural and mathematical sciences for general education only for education majors. Lecture: 3.0 credits (60 contact hours). Components: Lecture*

**Course ID:0061125**

**Course: Introduction to Business Management**

*This course introduces the concepts and principles of effective business management and includes forms of business ownership, typical business organizational structures, relationship of business to the community, and the effect of government regulations on business. Components: Lecture*

**Course ID:001130**

**Course: Business Management**

*This course further develops concepts and principles needed for managing a business or department within an abusiness. Problem-solving activities and case studies are used in researching the position of the manager in the typical business. Product and service promotion in business; the effects government regulations have on businesses; and educational requirements of a professional management career are topics covered in the course. Pre-requisite: BMO 170 Components: Lecture Attributes: Technical*
BMT Biomedical Equipment Technology

BMT 100(1) Course ID:001131 Hazardous Risks Encountered by BMETs and Methods of Prevention Emphasizes origin of hazardous occurrences within a healthcare setting encountered by Biomedical Equipment Technicians and the appropriate methods used to eliminate, reduce or avoid such occurrences. Addresses safety concerns associated with fire, medical gases, radiation, body fluids, microorganisms, devices, and people. Prerequisite: Reading assessment exam scores above KCTCS developmental level or successful completion of prescribed developmental courses. Pre-requisite or Co-requisite: AIT 100 or consent of instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture Attributes: Technical

BMT 110(2) Course ID:001133 BMET Career Perspectives and Field Practices Provides information on employment and career advancement opportunities as well as practices in support of hospitalwide safety program. Pre-requisite: BMT 100. Lecture/Lab: 2.0 credits (37.5 contact hours). (30:1 Ratio Lab)
Components: Lecture Attributes: Technical

BMT 120(4) Course ID:001135 Essentials of Analog and Digital Electronics for BMETs Level 1 Emphasizes basic analog and digital devices and associated circuits as well as their use within medical equipment. Pre-requisite or Co-requisite: AIT 110. Lecture/Lab: 4.0 credits (75 contact hours). (30:1 Ratio Lab)
Components: Lecture Attributes: Technical

BMT 130(4) Course ID:005953 Essentials of Analog and Digital Electronics for BMETs Level 2 Emphasizes advanced analog and digital devices and associated circuits as well as their use within medical equipment. Pre-requisite: BMT 120. Lecture/Lab: 4.0 credits (75 contact hours). (30:1 Ratio Lab)
Components: Lecture Attributes: Technical

BMT 140(4) Course ID:005954 Biomedical Instrumentation and Biophysical Measurements Emphasizes biophysical signals and measurements obtained from the human body, their clinical significance, factors which may affect their appearance or numerical value, and the technology used to detect, process, display and record such information. Pre-requisite: BMT 130 and BIO 135 Pre-requisite or Co-requisite: PH 171. Lecture/Lab: 4.0 credits (90 contact hours). (30:1 Ratio Lab)
Components: Lecture Attributes: Technical

BMT 210(1) Course ID:001138 Fundamental Engineering Design Principles Encountered in Medical Technology Emphasizes a variety of engineering and scientific principles and their applications in the design and operation of medical equipment including pressure, fluid mechanics, thermodynamics, optics, and sound. Pre-requisite: PH 171 and (MT 125 or higher). Lecture/Lab: 1.0 credit (19 contact hours) (30:1 Ratio Lab)
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: 4.0 credits (75 contact hours) (30:1 Ratio Lab)
Components: Lecture

BMT 230(3) Course ID:001140 Understanding, Maintaining, and Servicing Medical Equipment Explores the purpose and functionality of various types of medical technology as well as their performance testing, maintenance, and management requirements. Emphasizes mechanical ventilators, anesthesiachines, hemodialysis machines, video endoscopy systems, and other imaging modalities such as digital radiography, fluoroscopy, and diagnostic ultrasound. Pre-requisite: BMT 130 or consent of instructor. BMT 210 and BMT 215. Pre-requisite or Co-requisite: BMT 110. Lecture/Lab: 3.0 credits (60 contact hours). (30:1 Ratio Lab)
Components: Lecture Attributes: Technical

BMT 240(3) Course ID:001141 Understanding, Maintaining, and Servicing Specialized Medical Equipment Explores the purpose and functionality of various types of specialized medical technology as well as their performance testing, maintenance, and management requirements. Emphasizes mechanical ventilators, anesthesiachines, hemodialysis machines, video endoscopy systems, and other imaging modalities such as digital radiography, fluoroscopy, and diagnostic ultrasound. Pre-requisite: BMT 130 or consent of instructor. BMT 210 and BMT 215. Pre-requisite or Co-requisite: BMT 110. Lecture/Lab: 3.0 credits (60 contact hours). (30:1 Ratio Lab)
Components: Lecture Attributes: Technical

BRX Blueprint Reading BRX 110(2) Course ID:001146 Basic Blueprint Reading for Machinist Basic applied math, lines, multi-view drawings, symbols, variables, 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 credits (30 contact hours)
Components: Lecture Attributes: Technical

BRX 120(4) Course ID:001147 Blueprint Reading for Machinist Provides the student with a beginning and advanced series of lectures, demonstrations, and practice exercises in the study of prints. Safety will be emphasized as an integral part of this course. Lecture: 4 credits (60 contact hours)
Components: Lecture Attributes: Technical

BRX 120(3) Course ID:001148 Basic Blueprint Reading Includes basic applied math, lines, multi-view drawings, symbols, variables, schematics and diagrams, dimensioning techniques, sectional views, auxiliary views, threads and fasteners, and sketching typical to all shop drawings. Emphasizes safety as an integral part of the course. Lecture: 3 credits (45 contact hours)
Components: Lecture Course Equivalents: ELT 102 Attributes: Course Also Offered in Modules, Technical

BRX 210(2) Course ID:001151 Mechanical Blueprint Reading Provides the student with an advanced series of lectures, demonstrations, and practice exercises in the study of prints involving math (both decimal and metric), combination of lines, multi-view drawings, assembly drawings, fasteners, machining and construction processes, datum coordinates, numerical control prints, sheetmetal prints, welding, casting and forging prints. Safety will be emphasized. Lecture: 2 credits (30 contact hours)
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 listed found on architectural working drawings, construction dimensioning systems and charts/schedules. Components: Lecture Attributes: Course Also Offered in Modules, Technical

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

BTN Biotechnology Laboratory Technician BTN 100(4) Course ID:007277 Contextual Science with Laboratory Introduces students to laboratory focused concepts and skills necessary for entry-level positions in biotechnology laboratory. Exposes students to selected laboratory exercises that parallel the concept introduced in BTN 103 and BTN 104. Co-requisite: BTN 103, BTN 104. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours)
Components: Laboratory, Lecture

BTN 101(1) Course ID:004277 Introduction to Biotechnology Introduces current and future applications of biotechnology. Covers biotechnology career opportunities and biobioethics. Lecture: 1.0 credit (15 contact hours)
Components: Lecture Attributes: Technical
BTN 102(4) Course ID: 007077

Introduction to Biotechnical Engineering
Project Lead The VPA course in Biotechnical Engineering, exposes students to the diverse fields of biotechnology including biomedical engineering, bio-molecular genetics, bioprocess engineering, as well as agro-cultural and environmental engineering. Engages students in engineering design problems related to biomechanics, cardiovascular engineering, genetic engineering, agricultural biotechnology, tissue engineering, biomedical devices, human interface, bioprocesses, forensics, and bioethics. Pre-requisite or Co-requisite: Successful completion of, or concurrent enrollment in, high school biology or chemistry course or equivalent; consent of instructor. Lecture/Lab: 4.0 credits (105 contact hours).

Components: Lecture
Attributes: Technical

BTN 103(3) Course ID: 007278

Contextual Laboratory Language
Introduces students to basic scientific language and concepts of biotechnology. Academic study skills needed for success in bioscience courses will be emphasized. Covered topics parallel the concepts introduced in BTN 100 and BTN 104. Co-requisite: BTN 100 and BTN 104. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

BTN 104(3) Course ID: 007279

Contextual Laboratory Math
Introduces concepts of basic laboratory calculations emphasizing practical applications in biotechnology laboratories. Covered topics parallel the concepts introduced in BTN 100 and BTN 103. Co-requisite: BTN 100 and BTN 103. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

BTN 105(3) Course ID: 007346

Applied Laboratory Calculations for Biotechnology
Introduces concepts, techniques, and applications of common basic laboratory calculations that are routinized in the biotechnology laboratory. Emphasizes application of basic computational concepts required of biotechnicians. Requires students to apply strategies to calculate amounts of chemicals required to make solutions, calibrate instruments, collect data, and interpret data. Introduces some computer applications. Pre-requisite: MAT 065 or equivalent as determined by KCTCS examination. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

BTN 106(3) Course ID: 007280

Fundamentals of Scientific Communication
Introduces methods and strategies necessary for written, oral, and visual communications as they are used in the industrial science. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

BTN 110(4) Course ID: 004984

Nucleic Acid Methods
Covers theory of DNA structure and function. Emphasizes laboratory skills in a variety of DNA manipulations. Pre-requisite: One semester of college biology with lab or college chemistry with lab or consent of instructor. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

BTN 115(4) Course ID: 007347

Biomanufacturing
Surveys basic biomanufacturing principles and procedures designed to assure the quality and safety of 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) Course ID: 007348

Biofuels
Introduces students to combustion fuels made from nonpetroleum sources, and includes topics on feedstocks, processing, utilization, and social impacts. Pre-requisite: Completion of BTN 201 and BTN 202 with a grade of C or better, or permission of program coordinator. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

BTN 125(2) Course ID: 007349

Bioinformatics I
Introduces the concepts and tools used in the application of information technology to the field of biology. Includes methods for data collection, storing and accessing, biological data, fundamentals of sequence alignment, biological molecule structure prediction, and data mining and analysis. Pre-requisite: 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) Course ID: 007350

Bioinformatics II
Applies concepts introduced in BTN 125 in the design and implementation of basic programming relating to bioinformatics problems. Emphasizes current trends in bioinformatics programming language, databases, and technology. Pre-requisite: Completion of BTN 125 with a grade of C or better or permission of program coordinator. Lab: 2.0 credits (60 contact hours).

Components: Laboratory
Attributes: Technical

BTN 160(4) Course ID: 007351

Introduction to Agricultural Biotechnology
Introduces theory and methods relating to applications of biotechnology in agriculture. Emphasizes emerging agricultural 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 program coordinator. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours).

Components: 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 methodologies as activity assays for enzymes, extraction of proteins from bacterial cells, salting out, dialysis, ion exchange chromatography, and polyacrylamide gel electrophoresis. Pre-requisite: Completion of BTN 201 and BTN 202 with a grade of C or better, or permission of the program coordinator. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

BTN 295(1 - 3) Course ID: 007353

Independent Investigation in Biotechnology
Investigates specific topics or problems in the field of 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 eight 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 critical thinking. May be repeated for a maximum of 12 credits if topics and/or learning outcomes vary. Pre-requisite: Permission of instructor. Lecture: 1.0 - 3.0 credits (15-45 contact hours).

Components: Lecture
Attributes: Technical

BTS Biomedical Technology Systems

BTS 100(1) Course ID: 007224

Biomedical Technology Systems: A Career Perspective
Offers insight into the profession for which services are provided to Biomedical Technology Systems with regards to career opportunities, job expectations, and professional growth. Pre-requisite: RDG 30 or equivalent based on
KCTCS placement exam. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
Attributes: Technical

**BTS 110(1)** Course ID: 007225

*Environmental Risks and Precautionary Measures for the BTS Service Professional*

Presents potential risks for which those involved with Biomedical Technology Systems will encounter and precautionary measures taken to assure that no harm is done. Focuses on safety awareness and management throughout the entire healthcare setting including identifying risks associated with the use and maintenance of medical technologies. Pre-requisite: RDG 30 or equivalent based on KCTCS placement exam. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
Attributes: Technical

**BTS 120(2)** Course ID: 007226

*Essentials of Biomedical Electronics I*

Focuses on variety of systems including fluid dynamics, heat transfer, and electrochemistry. Pre-requisites that utilize principles involving light, sound, magnetic resonance imaging (MRI) systems. Pre-requisite: BIO 135, BTS 110, 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 125(2)** Course ID: 007227

*Essentials of Biomedical Electronics II*

Continues the presentation of analog and digital semiconductor devices and their applications within medical products. Focuses on 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 1101 with a grade of C or better. Lecture/Lab: 2.0 credits (37.5 contact hours).

Components: Lecture
Attributes: Technical

**BTS 130(2)** Course ID: 007228

*Medical Equipment Management I*

Focuses on safety awareness and management throughout the entire healthcare setting including identifying risks associated with the use and maintenance of medical technologies. Pre-requisite: RDG 30 or equivalent based on KCTCS placement exam. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
Attributes: Technical

**BTS 140(1)** Course ID: 007229

*Science Principles Employed in Medical Technologies*

Presents basic analog and digital semiconductor devices and their applications within medical products. Focuses on 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 1101 with a grade of C or better. Lecture/Lab: 2.0 credits (37.5 contact hours).

Components: Lecture
Attributes: Technical

**BTS 200(2)** Course ID: 007230

*Patient Care Support and Management Systems*

Focuses on systems that influence patient care in an indirect manner rather than directly providing patient care. Focuses on variety of systems including power systems, water and medical gas systems, nurse call systems, patient beds, sterilizers, infant care devices, systems, and telemedicine equipment. Pre-requisite: BTS 125 with a grade of C or better. Lecture/Lab: 2.0 credits (37.5 contact hours).

Components: Lecture
Attributes: Technical

**BTS 210(2)** Course ID: 007231

*Diagnostic Medical Equipment and Non-Radiographic Imaging Modalities*

Focuses on technologies involving light, sound, magnetic resonance imaging (MRI) systems. Pre-requisite: BIO 135, BTS 110, BTS 125, and BTS 140 (each with a grade of C or better). Lecture/Lab: 2.0 credits (37.5 contact hours).

Components: Lecture
Attributes: Technical

**BTS 220(2)** Course ID: 007232

*Laboratory Devices, Instruments, and Analyzers*

Focuses on 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 1101 with a grade of C or better. Lecture/Lab: 2.0 credits (37.5 contact hours).

Components: Lecture
Attributes: Technical

**BTS 225(2)** Course ID: 007233

*Therapeutic Equipment Modalities I*

Focuses on variety of diagnostic technologies including medical equipment and instrumentation that utilize principles involving light, sound, magnetic resonance imaging (MRI) systems. Pre-requisite: BIO 135, BTS 110, 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 230(2)** Course ID: 007234

*Introduction to Medical-Based IT Networks and Standards*

Focuses on clinical applications, circuit design and circuit operation, operator controls and equipment setup, managing device alarms, addressing maintenance requirements, and meeting performance and safety standards. Focuses on clinical applications, circuit design and circuit operation, operator controls and equipment setup, managing device alarms, addressing maintenance requirements, and meeting performance and safety standards. Focuses on a variety of medical technologies including IV pumps, electrosurgical units, debricators, mechanical ventilators, anesthesia machines, infant incubators, and surgical lasers. Pre-requisites: BIO 135, BTS 125, and BTS 140 (each with a grade of C or better). Lecture/Lab: 2.0 credits (37.5 contact hours).

Components: Lecture
Attributes: Technical

**BTS 240(2)** Course ID: 007235

*Diagnostic Imaging Modalities*

Focuses on variety of diagnostic technologies including medical equipment and instrumentation that utilize principles involving light, sound, magnetic resonance imaging (MRI) systems. Pre-requisite: BIO 135, BTS 110, 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 250(2)** Course ID: 007236

*Therapeutic Equipment Modalities II*

Focuses on variety of diagnostic technologies including medical equipment and instrumentation that utilize principles involving light, sound, magnetic resonance imaging (MRI) systems. Pre-requisite: BIO 135, BTS 110, 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 260(2)** Course ID: 007237

*General Care Monitoring and Instrumentation*

Focuses on variety of diagnostic technologies including medical equipment and instrumentation that utilize principles involving light, sound, magnetic resonance imaging (MRI) systems. Pre-requisite: BIO 135, BTS 110, 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 270(2)** Course ID: 007238

*Critical Care Monitoring and Instrumentation*

Focuses on variety of diagnostic technologies including medical equipment and instrumentation that utilize principles involving light, sound, magnetic resonance imaging (MRI) systems. Pre-requisite: BIO 135, BTS 110, 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: 007239

*Biochemistry of Clinical Laboratory Technologies*

Focuses on variety of diagnostic technologies including medical equipment and instrumentation that utilize principles involving light, sound, magnetic resonance imaging (MRI) systems. Pre-requisite: BIO 135, BTS 110, 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 285(2)** Course ID: 007240

*Clinical Experience in Biomedical Technology Systems*

Focuses on variety of diagnostic technologies including medical equipment and instrumentation that utilize principles involving light, sound, magnetic resonance imaging (MRI) systems. Pre-requisite: BIO 135, BTS 110, and BTS 140 (each with a grade of C or better). Lecture/Lab: 2.0 credits (37.5 contact hours).

Components: Lecture
Attributes: Technical
Course Descriptions

BTS 293(0.5 - 5) Course ID:007241
Selected Topics of Investigation in Biomedical Technology Systems
Includes selected topics in Biomedical Technology Systems that can be addressed to fulfill an industry need or desire. Covers topics which may vary from semester to semester at the discretion of the instructor. May repeat course with different topics to a maximum of five credit hours. Pre-requisite: Consent of instructor.Lecture/ Lab: 0.5 - 5.0 credits (7.5 - 75.0 contact hours).
Components: Lecture Attributes: Technical

CAD Computer-Aided Design

CAD 100(3) Course ID:000216
Introduction to Computer Aided Design
Applies fundamental principles and capabilities of CAD, basic drafting conventions, and operations. Provides an in-depth study of computer aided drafting commands, terminology, command utilization, and skill development. Lecture: 1.0 credit (15 contact hours). Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture Attributes: Course Also Offered in Modules, Technical

CAD 102(4) Course ID:004052
Drafting Fundamentals
Explores the fundamentals of drafting in the use of equipment through measurement of lines, angles, circles, arcs, and irregular curves; alphabet of lines; freehand sketching; geometric constructions; orthographic projection; characteristics of lines and planes; lettering; and dimensioning techniques. Lecture/Lab: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 103(4) Course ID:015755
CAD Fundamentals
Provides an introduction to team and project-based study of CAD (Computer Aided Drafting) and its application in conjunction with current computer technology. Introduces topics that include computer hardware and software, drafting conventions and operations, file management, the Internet, e-mail, social media, CAD commands and terminology, digital security, and computer and intellectual property ethics; presents basic applications of CAD skills in 2D/3D technical drawing production, programming, systems, and interconnections with other utility software. Lecture/Lab: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 108(3) Course ID:005186
Introduction to Surveying
Introduces the elements of surveying including measurements, distance corrections, leveling, angles, areacomputation, computer calculations, topographic surveying, electronic distance measuring instruments, construction surveying, GPS, and GIS. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CAD 112(4) Course ID:004054
Engineering Graphics
Explores lines and planes as they relate to orthographic projection to show the size and shape of objects, as well as for descriptive geometry in solving advanced problems. Includes application of principles and graphic elements of sectioning; techniques involved in oblique projections, axonometric projections, and perspective drawings; and dimensioning techniques and symbol usage common to all drafting disciplines. Pre-requisite: CAD102 with a grade of C or better or Approval of Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 120(4) Course ID:004067
Introduction to Architecture
Introduces a practical approach to architectural drafting using board and computer aided drafting methodologies it relates to residential and commercial architecture, specifications, and structural systems including wood, masonry, concrete, and steel. Pre-requisite: CAD 100 OR CAD 103 with a grade of C or better or approval of the Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 130(4) Course ID:004057
Descriptive Geometry
Examines the spatial relationships between points, lines, and planes in various orthographic projections with graphical solutions; explores the processes to solve problems using auxiliary view projection methods, revolutions, intersections, and developments. Pre-requisite: CAD 112 with a grade of C or better or approval of Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 150(4) Course ID:000217
Programming in CAD
Introduces fundamental principles of the computer language(s) that represents and interfaces with the main CAD software. Includes writing subroutines and programs to perform CAD functions not available in the main CAD software. Pre-requisite: CAD 100 OR CAD 103 with a grade of C or better or approval of the Instructor. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture Attributes: Technical

CAD 200(4) Course ID:000218
Intermediate Computer Aided Drafting
Produces advanced two- and three-dimensional object drawings with CAD software to learn the techniques of drafting, layering, and symbols associated with one or more design applications, and calculate perimeters, areas, and mass associated with the drawings. Pre-requisite: CAD 100 OR CAD 103 with a grade of C or better or approval of the Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 201(4) Course ID:000219
Parametric Modeling
Introduces parametric modeling and design of a CAD workstation in exploring the techniques associated with drafting and design using parametric modeling software. Introduces conceptual modeling and explores associative function and flexibility of concurrent part design. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 212(4) Course ID:004059
Industrial Drafting Processes
Explores weldment design, welding symbols, welding processes, and fabrication techniques, tool and die, and jig fixture drawings. Includes design specifications, pattern drawings, casting, forming processes, and mechanical design principles in relation to the manufacturing industry. Covers screw-thread design and related fastening concepts as they relate to manufactured items and construction. Pre-requisite: CAD 100 ORCAD 103 with a grade of C or better or approval of the Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 216(4) Course ID:016429
Building Information Modeling
Introduces Building Information Modeling (BIM), an intelligent model-based process that provides insight to help plan, design, construct, manage buildings and infrastructure through three-dimensional models, and generate construction drawing sheet sets. Creates structures for analytical purposes such as visualization, quality take off, cost estimating, scheduling, coordination and facility management across various fields, including architectural, structural and mechanical, electrical, and plumbing. Using BIM technology enables discovery of potential conflicts between these fields. Lecture/Lab: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 220(4) Course ID:004068
Architectural Design
Introduces the theory of architectural design and presentation techniques. Applies site selection, use of materials in design, spatial relationships, and aesthetics. Explores traditional contemporary design, designers, processes, and historical milestones. Uses board and computer techniques to illustrate exteriors and interiors of student designs. Pre-requisite: CAD 120 with a grade of C or better or approval of Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 222(4) Course ID:004061
Mechanical Design
Describes the design principles, mechanical design, and drawing practices involved in the development of mechanical working drawings and the design principles in various manufacturing disciplines; gear drafting and design, and cam and follower drafting; and mechanical assemblies, machine design, power transmission, bearings, and seals in assemblies. Involves shop processes in these mechanical designs. Pre-requisite: CAD100 with a grade of C or better or approval of Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 230(4) Course ID:003996
Construction Techniques
Covers the elements for constructing standard residential and commercial structures; essentials of standard construction details, which illustrate the various construction methods involved in wood frame, solid masonry, masonry veneer, concrete, and steel construction. Includes the development of a portfolio for the techniques. Pre-requisite: CAD 120 with a grade of C or better or approval of Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 240(4) Course ID:004008
Advanced Dimensioning and Measurement
Presents an in-depth study of advanced industrial dimensioning principles, tolerances, fits, and A.N.S.I. standards. Explores shape and geometric characteristics of parts through geometric dimensions and tolerancing through drafting application and study. Pre-requisite: CAD 100 with a grade of C or better or approval of Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 252(4) Course ID:004070
Commercial Detailing
Explores commercial drafting building codes, building structure, materials, and structural drafting and detailing. Emphasizes calculations to determine appropriate structural members. Pre-requisite: CAD 120 with a grade of C or better or Approval of the Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 262(4) Course ID:005185
Working Drawings
Prepares a set of working drawings to be used in a portfolio that shows mastery of the architectural drawing/operations and knowledge of building construction techniques. Pre-requisite: CAD 120 with a grade of C or better or approval of the Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 291(2) Course ID:004063
Special Problems
Allows the student to gain intermediate experience in their perspective fields through projects and tasks assigned by the instructor. (Based on applications the student may one day experience as a professional. Sets the foundation for
more in-depth projects that will be included in the student's future portfolio. Focuses on various assignments and curriculum determined by the program instructor. Pre-requisite: Permission of the instructor. Lab: 2.0 credits (60 contact hours).

Components: Laboratory
Attributes: Technical

CAD 292(4) Course ID:005186

Department Consent Required

Industrial Applications

Emphasizes the development of a portfolio of mechanical drawings specific to the occupational opportunities inspecific geographical locations. Focuses on various assignments and curriculum as determined by the program instructor. Pre-requisite: Approval of Program Coordinator. Lecture: 4.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

CAD 293(1 - 4) Course ID:004064

Department Consent Required

Special Problems

Allows the student to gain intermediate experience in their perspective fields through projects and tasks assigned by the instructor and based on applications the student may one day experience as a professional. Sets the foundation for more in-depth projects that will be included in the student's future portfolio. Focuses on various assignments and curriculum as determined by the program instructor. Pre-requisite: Approval of Program Coordinator. Lecture: 4.0 credits (30-120 contact hours).

Components: Laboratory
Attributes: Technical

CAR 126(3) Course ID:001152

Intro to Construction

Provides a discussion of the different employment opportunities of carpentry related careers within the construction industry including different construction systems and methods as well as basic management of an construct 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 construction project. Permits student to become familiar with common building materials and the correct use of hand and power tools. Includes shop and job-site safety standards. Co-requisite: CAR 126. Laboratory: 1 credit (30 contact hours).

Components: Laboratory
Attributes: Technical

CAR 140(3) Course ID:001154

Surveying & Foundations

Enables the student to familiar with construction surveying methods, site layout procedures and materials used in the construction of foundation systems as well as discussion on the use of the buildings 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 buildings 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 permanent concrete as a building material, rigging, concrete wall form systems, above grade floor systems, vertical piers and column form systems, on grade curb forms, horizontal beam forms, fireproofing enclosure forms, stair forms, bridge and deck forms. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CAR 151(2) Course ID:001157

Concrete Formwork-Lab

Introduces the carpentry student to heavy and commercial concrete form construction methods. Provides for the application of information about the properties of concrete, rigging, concrete wall form systems, above grade floor systems, vertical piers and column form systems, on grade curb forms, horizontal beam forms, fireproofing enclosure 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 Const. I

Emphasizes methods of framing 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 Const. 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

Special Topics in Carpentry

Includes various Construction Carpenter Technology topics, issues and trends. Topics may vary semester to semester at the discretion of the instructor; course may be repeated with different topics to a maximum of six credits. 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 200(3) Course ID:001162

Light Frame Construction III

Presents the concepts of interior and exterior finish materials and methods of installation. Lecture: 4 credits (60 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CAR 201(2) Course ID:001163

Light Frame Const. III-Lab

Provides an opportunity for students to perform basic applications of the concepts of interior and exterior finish methods for light frame construction. Co-requisite: CAR 200. Laboratory: 2 credits (60 contact hours).

Components: Laboratory
Attributes: Course Also Offered in Modules, Technical

CAR 240(3) Course ID:001164

Light Frame Construction IV

Covers the concepts that support the planning, construction and installation methods for kitchen and bath cabinetry and countertops. Provides discussion of special finish trim techniques such as finishing stucco, interior wall and floor systems. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CAR 241(2) Course ID:001165

Light Frame Const. IV-Lab

Allows the student to practice the concepts that support the planning, construction and installation methods for kitchen and bath cabinetry and countertops including special finish trim techniques of finish carpentry and specialty millwork. Co-requisite: CAR 240. Laboratory: 2 credits (60 contact hours).

Components: Laboratory
Attributes: Technical

CAR 270(3) Course ID:007299

Green Building

Integrates principles of green building technologies and methods of sustainable construction. Emphasizes green materials used in the construction of buildings along with alternative and/or renewable energy systems. Introduces Leadership in Energy and Environmental Design (LEED) and the National Green Building Standard (NGBS) rating systems for the certification process of...
green buildings. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CDH 110(3)  Course ID:016830
Dental Health Communication Skills

Provides an overview of oral health communication, oral health literacy, and patient assessment interviewing skills for the Community Dental Health Coordinator. Emphasizes the impact of oral health literacy on one's health. Includes communication strategies, verbal and nonverbal communication skills. Covers motivational interviewing, human behaviors, and health concepts emphasizing oral health. Incorporates patient assessment, feedback, education, and behavior change interventions for dental patients. Pre-requisite: Must be registered Dental Hygienist (RDH). Lecture: 3.0 credits (45 contact hours)

Components: Lecture
Attributes: Technical

CDH 115(3)  Course ID:016831
Dental Health Coordination, Documentation, Reporting, and Finance

Provides an overview of coordination, documentation and reporting approaches for working with families as well as individuals. Includes family assessment, case documentation and overview of the services system. Covers health care finance, the referral process and components of case management. Pre-requisite: Must be registered Dental Hygienist (RDH). Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CDH 125(2)  Course ID:016832
Dental Health Teaching and Learning Skills

Provides an overview of teaching and learning skills as they apply to the Dental Health field. Includes teaching and learning techniques, goal setting and critical thinking. Covers internet usage and safety as well as an introduction to concepts of lifelong learning. Pre-requisite: Must be registered Dental Hygienist (RDH). Lecture: 2.0 credits (30 contact hours)

Components: Laboratory
Attributes: Technical

CDH 220(3)  Course ID:016833
Prevention of Periodontal Disease

Covers education and procedures used in the prevention of periodontal disease. Includes soft deposits, calculus, and identification of tissue changes as well as characteristics of the most common types of periodontal disease. Covers oral cancer treatment and use of sickle scalers for performing gross debridement. Prevents scarring, polishing. Pre-requisite: Must be a registered Dental Hygienist (RDH). Lecture: 3.0 credits (45 contact hours)

Components: Lecture
Attributes: Technical

CDH 245(3)  Course ID:016834
Community Dental Health Coordinator Internship

Demonstrates practical application of the Community Dental Health Coordinator (CDHC) skills in a practicum setting. Includes knowledge and skills required to organize, develop and manage integrated dental care community-based clinics within practice standards. Pre-requisite: Must be a registered Dental Hygienist (RDH). Practicum: 6.0 hours (360 contact hours)

Components: Lecture
Attributes: Technical

CET 210(3)  Course ID:004705
Structural Analysis and Design

The course will cover building structure for civil engineering technology students, including different types of building loads and their effect upon the various materials used by architects, engineers and technologists. The students will be introduced to quality construction techniques utilizing steel, concrete and reinforced concrete. Industry manuals, specifications and computer programs will be utilized to familiarize the student with current technology. Pre-requisite: ACH 225. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CET 220(4)  Course ID:004706
Intermediate Surveying

The course will include the application of surveying practices for route surveying for highways, construction, and topographic surveys. Students will perform deed research and evaluation, convert outdated deed descriptions into current measurements, and prepare record plats. Pre-requisite: CET 211. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (45 contact hours).

Components: Laboratory
Attributes: Technical

CET 280(3)  Course ID:004708
Highway Design

Students will be introduced to the fundamentals of highway design. Different components involved in designing an atypical highway, including planning, surveying, mapping, and preliminary and final design will be explored using design software. Pre-requisite: CAD 100 or ACH 185/195, MA 109, and CE 211. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours).

Components: Laboratory
Attributes: Technical

CET 295(1 - 4)  Course ID:005036
Instructor Consent Required

Independent Problems

A problem or special project, approved by the instructor, will provide an opportunity for independent study for Civil Engineering Technology students. This course may be repeated to a maximum of six credits. Pre-requisite: Consent of instructor. Lecture: Variable. Laboratory: Variable.

Components: Laboratory
Attributes: Technical

CHE Chemistry

CHE 120(3)  Course ID:000237
Chemistry in Society

Introduces non-science majors to the main concepts and applications of chemistry in our society. Pre-requisite: Completion of one developmental math course above Pre-Algebra with a grade of "C" or better or OR (College level math ACT score) OR equivalent. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Science - Lab, Course Also Offered in Modules

CHE 125(1)  Course ID:006172
Chemistry in Society Laboratory

Reinforces concepts covered in CHE 120 and introduces scientific inquiry through selected experiments. Pre-requisite or Co-requisite: CHE 120. Laboratory: 1 credit (45 contact hours) (45:1 ratio).

Components: Laboratory
Attributes: SL - Science Laboratory
CHE 130(4)  Course ID:000236  
Introductory General and Biological Chemistry  
Prepares the elementary principles of general, organic, and biological chemistry. Pre-requisite: (AppliedMathematics 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, Lecture  
Attributes: SL - Science Laboratory, SN - Science  

CHE 140(3)  Course ID:000224  
Introductory General Chemistry  
Introduces topics in general chemistry, including properties of matter, stoichiometry, gases, 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 with careers in allied health fields. Pre-requisite: Mathematics assessment exam scores with placement in College Algebra or higher OR successful completion of the prescribed pre-requisite course(s) for College Algebra or Equivalent with a grade of “C” or better OR successful completion of MAT 116 or MAT 110 with a grade of “C” or better.Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: SN - Science  

CHE 145(1)  Course ID:000239  
Introductory General Chemistry Laboratory  
Reinforces concepts covered in CHE 140 and introduces basic laboratory techniques, methods, and instrumentation through selected experiments dealing with chemical and physical properties, qualitative analysis, and quantitative analysis. Pre-requisite or Co-requisite: CHE 140. Laboratory: 1 credit (45 contact hours, 45:1 ratio).  
Components: Laboratory  
Attributes: SL - Science Laboratory  

CHE 150(3)  Course ID:000226  
Introduction to Organic and Biological Chemistry  
Continues the sequence begun in CHE 140. Introduces topics in organic chemistry and biochemistry. Introduces organic functional groups, their reactions, and the chemistry of proteins, nucleic acids, carbohydrates, and lipids. Pre-requisite: CHE 140 with a grade of C or better. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: SL - Science Laboratory, SN - Science  

CHE 155(1)  Course ID:006173  
Introduction to Organic and Biological Chemistry Laboratory  
Reinforces concepts covered in CHE 150 and introduces basic laboratory techniques, methods, and instrumentation through selected experiments dealing with the preparation, characterization, and purification of organic compounds and the reactions of biomolecules. Pre-requisite: CHE 140 and CHE 145. Pre-requisite or Co-requisite: CHE 150. Laboratory: 1 credit (45 contact hours, 45:1 ratio).  
Components: Laboratory  
Attributes: SL - Science Laboratory  

CHE 160(2)  Course ID:000238  
Preparation for General College Chemistry  
Prepares students for success in CHE 170. Introduces vocabulary and nomenclature and provides students with practice in dimensional analysis, stoichiometry, and other critical skills. Offered on a Pass/Fail basis only. Pre-requisite: (Math ACT 19) OR (Intermediate Algebra with a grade of C or better). Lecture: 2 credits (30 contact hours).  
Components: Lecture  
Attributes: Other  

CHE 170(4)  Course ID:000225  
General College Chemistry I  
Focuses on major chemical topics, including stoichiometry, atomic structure, properties of matter and their relationship between molecular structure and chemical behavior. Emphasizes solving of mathematical problems which illustrate the principles of chemistry. Designed for students in the sciences, engineering, and pre-professional programs. Pre-requisite: (ACT math score of 22 OR (College Algebra or higher with “C” or better) OR (CHE 130 OR CHE 140 with a grade of “C” or better) OR (CHE 160 with a grade of “P”) OR (Appropriate score on math or chemistry placement exam). Lecture: 4.0 credits (60 contact hours).  
Components: Lecture  
Attributes: SN - Science  

CHE 175(1)  Course ID:000240  
General College Chemistry Laboratory I  
Reinforces concepts covered in CHE 170 and introduces basic laboratory techniques, methods, and instrumentation through selected experiments. Emphasizes both quantitative and qualitative techniques. Pre-requisite or Co-requisite: CHE 170. Laboratory: 1 credit (45 contact hours, 45:1 ratio).  
Components: Laboratory  
Attributes: SL - Science Laboratory, SN - Science  

CHE 180(4)  Course ID:000227  
General College Chemistry II  
Continues CHE 170. Focuses on major chemical topics, including acid-base chemistry, 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 credits (60 contact hours).  
Components: Lecture  
Attributes: SN - Science  

CHE 185(1)  Course ID:000241  
General College Chemistry Laboratory II  
Reinforces concepts covered in CHE 180 and introduces basic laboratory techniques, methods, and instrumentation through selected experiments. Emphasizes both quantitative and qualitative techniques. Pre-requisite: CHE 175 with a grade of C or better. Pre-requisite or Co-requisite: CHE 180. Laboratory: 1 credit (45 contact hours, 45:1 ratio).  
Components: Laboratory  
Attributes: SL - Science Laboratory  

CHE 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 190. 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 200(2)  Course ID:000233  
Organic Chemistry Laboratory II  
Explores the synthesis, purification, and characterization of organic compounds in the laboratory. Pre-requisite: CHE 275 with a grade of C or better. Pre-requisite or Co-requisite: CHE 280. Laboratory: 2 credits (60 contact hours).  
Components: Laboratory  
Attributes: SL - Science Laboratory  

CHE 209(1 - 3)  Course ID:006175  
Instructor Consent Required  
Selected Topics in Chemistry: (Topic)  
Provides a topic in chemistry chosen by the instructor. Topics may vary from semester to semester at the discretion of the instructor; course may be repeated with different topics to a maximum of six credit hours. Pre-requisite: Consent of instructor. Lecture: 1-5 credits (15-45 contact hours).  
Components: Lecture  

CHE 215(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. Lecture: 1-3 credits (30-90 contact hours).  
Components: Laboratory  

CHE 299(1 - 3)  Course ID:006177  
Instructor Consent Required  
Laboratory Research in Chemistry: (Topic)  
Offers the student the opportunity to perform laboratory research on a problem chosen by the instructor. Course may be repeated to a maximum of six credit hours. Pre-requisite: Consent of instructor. Laboratory: 1-3 credits (30-90 contact hours).  
Components: Laboratory  

CHE 321(0.75)  Course ID:000216  
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

CHE 1204(0.75)  Course ID:006129
Special Topics: Fields of Chemistry
Introduces non-science majors to different fields in chemistry through applied special topics. Pre-requisites: CHE 1201, 1202, or 1203. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

CIS  Computer Information Systems

CIS 230(3)  Course ID:000264
Advanced Microcomputer Applications
Students use advanced functions of current software packages (word processing, spreadsheets, databases, management, presentation development). Topics include working with complex documents, spreadsheets, and databases. Additionally, students will create sophisticated presentations and prepare data for distribution online. Lecture: 3.0 credit hours. Pre-requisite: CIS 130 or consent of instructor. Components: Lecture Course Equivalents: CIT 234 Attributes: Course Also Offered in Modules, Technical

CIS 2301(0.9)  Course ID:005846
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 computer skills fundamental to college success. Focuses on computer terminology; rudimentary skill in touch typing; creating simple documents, slide shows and spreadsheets; using a course management system; using a search engine to find information on the Internet; initializing and using student email and onlinestudent 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: 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 other 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. Offers development and design basics including use of variables, control and data structures, and principles of command-line and object-oriented languages. Pre-requisite or Co-requisite: MAT 085 OR MAT 126 OR higher OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 124(3)  Course ID:016259
Introduction to Game Development
Presents an overview of the game development process including game development history, platforms, goals, genres, players, story and character development, gameplay, levels, interfaces, audio, development processes, development team roles, marketing, and maintenance. Offers students the opportunity to play and analyze games facilitating discussion on game design and function. Completion of partial game design will occur. Pre-requisite: CIT105 OR IMD100 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Equivalents: IMD 124 Attributes: Technical

CIT 125(3)  Course ID:006901
Intro to Digital Maps
Provides an introduction to the fundamentals and concepts of geographical information systems including basic GIS capabilities, data analysis, data types, coordinate systems, cartography and mapping concepts. Introduces GIS software for creating digital maps and management technology tools. Pre-requisite: CIT 120 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 130(3)  Course ID:004713
Productivity Software
Utilizes current word processing, spreadsheet, database, and presentation application software to solve common business problems. Covers basic features of each software application. Pre-requisite: CIT 105 OR OST105 OR IMD 100 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CIT 140(3)  Course ID:004714
JavaScript I
Provides students with an overview of the JavaScript scripting language. Includes coding, testing, and debugging JavaScript programs; using variables, operators, and data types; creating dynamic web pages using JavaScript; controlling the behavior of forms, buttons, and text elements; and using control structures, pattern matching, objects, and application scripts. Pre-requisite: CIT 120 AND (CIT 150 or CIT 155) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 141(3)  Course ID:005037
PHP I
Explores the fundamentals of PHP, with emphasis on syntax, structure, and current usage. Includes dynamic generation of web pages, fluid forms, and web security. Pre-requisite: CIT 120 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 142(3)  Course ID:006902
C++ I
Introduces students to fundamental programming concepts using the C++ programming language. Includes data types, control structures, simple data structures, error-handling, modular programming, and information and file processing. Pre-requisite: CIT 120 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 143(3)  Course ID:006247
C I
Introduces students to fundamental programming concepts using the C programming language. Includes data types, control structures, simple data structures, error-handling, object-oriented programming, graphical user interfaces, and modular programming. Pre-requisite: CIT 120 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 144(3)  Course ID:006190
Python I
Introduces students to fundamental programming concepts using the Python programming language. Includes data types, control structures, simple data structures, error-handling, modular programming, object-oriented programming, graphical user interfaces and file processing. Pre-requisite: CIT 120 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 145(3)  Course ID:004715
Perl I
Provides students with an overview of the PERL scripting language. Includes coding, testing, and debugging PERL programs; using variables, operators, and data types; and using control structures, pattern matching, objects, and application scripts. Pre-requisite: CIT 120 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 147(3)  Course ID:006903
Programming II: 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

Course Descriptions

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Course ID:004716
Visual Basic ICT 148(3)
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)
Internet Technologies
Course ID:004718
Provides students with a study of traditional and emerging Internet technologies. Covers topics including Internet fundamentals, Internet applications, Internet delivery systems, and Internet client/server computing. Provides a hands-on experience and some rudimentary programming in an Internet environment. Pre-requisite: CIT 105 OR Consent of Instructor. Pre-requisite Or Co-requisite: CIT 120. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 152(3) Course ID:007391
Social Media Tools and Technologies
Introduces students to web-based social media tools. Explores and researches online applications, socialnetworks, 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:008904
Web Page Development
Introduces web page design through the use of HTML and CSS. Uses text and/or web editors to create webdocuments with various formats and page layouts, multimedia, tables and forms. Emphasizes W3C web design accessibility standards. Pre-requisite: CIT 105 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 157(3) Course ID:008905
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 computernetworks. 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 routersand switches, and implement IP addressing schemes. Pre-requisite: MT 065 OR Consent of Instructor. Pre-requisite or Co-requisite: CIT 111 OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 167(4) Course ID:015644
Routing & Switching Essentials
Covers the architecture, components, and operations of routers and switches. Covers concepts and methodologies. 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: 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 CIT 105 ORMD 100 and (MAT 085 OR MAT 128) 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 management 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 theCOMPTIA Security+ examination. Pre-requisite: (CIT 160 OR CIT 161) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 182(3) Course ID:006911
Perimeter Defense
Presents information and skills required to secure computers and networks from attacks with an emphasis on configuration of firewalls and intrusion-detection systems. Pre-requisite: CIT 180 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 184(3) Course ID:006912
Attacks and Exploits
Provides knowledge and skills necessary to understand a variety of attacks and exploits against computers and networks. Teaches effective defensive techniques against real attacks. Pre-requisite: CIT 180 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 201(3) Course ID:007295
Information Storage Management
Provides a comprehensive introduction to information storage technology. Explores the architectures, features, and benefits of intelligent storage systems, networked storage technologies, long-term archiving solutions, information security, and the emerging field of storage virtualization and cloud technologies. Pre-requisite: CIT 167 AND (CIT 214 OR CIT 217) OR Consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Integrated Laboratory, Integrated Lecture Attributes: Technical

CIT 203(3) Course ID:007296
Introduction to Virtualization
Provides an introduction to virtualization technologies including the architecture, its applications, and bestpractices. Uses VMware ESXi servers and VMware vCenter servers for creation and management of virtual machines, virtual switches and storage architectures including distributed resource scheduling, highavailability, and fault tolerance. Satisfies the requirements for the Associate Data Center Virtualization (VCA-DCV). Pre-requisite: CIT 167 AND (CIT 214 OR CIT 217) OR Consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Integrated Laboratory, Integrated Lecture Attributes: Technical

CIT 204(3) Course ID:016721
VMware Optimize and Scale
Provides advanced skills for configuring and maintaining a highly available and scalable virtualization infrastructure. Utilizes techniques to optimize resources in a virtualized data center to support infrastructure as a service (IaaS) architectures. Satisfies the VMware Certified Professional/ Data Center/virtualization (VCP-DCV) course requirement. Pre-requisite: CIT 203 or Consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

CIT 205(3) Course ID:007297
Cloud Infrastructure and Services
Provides a comprehensive introduction to cloud computing deployment and service models, cloud infrastructure, and the key considerations in migrating to cloud computing. Examines the required technology essentials across all domains including server, storage, networking, applications, and databases to help develop a strong understanding of virtualization cloud computing technologies. Pre-requisite: (CIT 201 and CIT 203) or consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

CIT 209(4) Course ID:015645
Scaling Networks
Covers the architecture, concepts, and operations of routers and switches in a larger and more complex network. Helps students learn how to configure routers and switches for advanced functionality. Helps students to configure and troubleshoot routers and switches and resolve common issues with OSPF, EIGRP, STP, and VTP in both IPv4 and IPv6 networks. Helps students to develop the knowledge and skills needed to implement DHCP and DNS operations in a network. Pre-requisite: CIT 167 or Consent of Instructor. Lecture: 4.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

CIT 212(4) Course ID:004723
Connecting Networks
Covers WAN technologies and network services required by converged applications in a complex network. Enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Helps students learn how to configure and troubleshoot network devices and resolve common issues with data link protocols. Helps students to develop the knowledge and skills needed to implement IPsec and virtual private network (VPN) operations in a
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CIT 253(3) Course ID:005039
Data Driven Web Pages: (Topic)
Provides students with the knowledge and skills to design, implement, and manage a database-driven web site. Includes the study of databases and web servers in e-commerce, transaction processing, and client-side and server-side web scripting. Includes the creation of a database-driven Web site. Pre-requisite: [(CIT 150 AND CIT 155 OR CIT 157) AND CIT 170 AND Approved Level I Programming Language] OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

CIT 255(3) Course ID:005104
Web Server Administration
Provides an in-depth study of the functions required to run a safe and stable web server. Considers multiplew eb services on multiple platforms from installation to configuration, availability, and security. Requires hands-on experiences with web services. Pre-requisite: [(CIT 150 OR CIT 155 OR CIT 157) AND CIT 214 OR CIT 219] OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

CIT 257(3) Course ID:000825
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 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 small 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 needed to connect a local area network. Pre-requisite: CIT 160 OR CIT 161 OR Consent of Instructor. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (30 contact hours).

Components: Laboratory, Lecture

CIT 262(3) Course ID:005210
MS Network Infrastructure
Provides students with the knowledge and skills necessary to install, configure, manage, and support a network infrastructure using a Microsoft Windows server operating system. Assists in preparing students for exams 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:006246
Advanced Topics in Microsoft Windows: (Topic)
Covers concepts and/or skills from special areas of interest in Microsoft Windows operating systems. Focus on specific topics that will vary from semester to semester at the discretion of the instructor. Pre-requisite: CIT 213 or consent of instructor. Lecture: 1-6 credits (15-90 contact hours).

Components: Lecture Attributes: Technical

CIT 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 213 AND CIT 262 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

CIT 268(3) Course ID:004731
Internet Protocols
Provides students with the knowledge and skills to install, configure, manage and troubleshoot internetworking TCP/IP and its associated protocols. Pre-requisite: (CIT 111 and CIT 140) OR consent of instructor. Lecture: 3.0 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 databases. Uses advanced features of SQL, including stored procedures and triggers, to design and interface with a database and other applications. Pre-requisite: CIT 171 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

CIT 272(3) Course ID:016261
Game Design Theory
Introduces students to the experience-oriented standards and techniques of gaming on a digital platform. Includes hands-on conceptualization and writing of a game created by the student. Emphasizes creativity, player experiences and motivations, styles of play, types of games, character creation, world creation, and story-driven narrative within a video game. Offers students the opportunity to complete an industry-quality Game Design Document. Pre-requisite: CIT/IMD 124 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Course Equivalents: IMD 272 Attributes: Technical

CIT 273(3) Course ID:016262
Game Production
Provides students with the opportunity to produce a fully playable 3D video game using assets and materials created in previous courses. Offers students the opportunity to employ an industry-standard game engine (e.g., 3D content, audio, narrative, character, and environment) and apply advanced networking concepts. Covers advanced TCP/IP concepts such as IP addressing and subnetting, beginning router configuration, routed and routing protocols. Completes one of a series of four courses that prepares students for the Cisco Certified Network Associate (CCNA) certification exam. Pre-requisite: CIT 160 or consent of instructor. Lecture: 4 credits (60 contact hours).

Components: Lecture

CIT 276(3) Course ID:006926
3-D Game Development: Language
Provides students with an introduction to three-dimensional game creation. Includes the creation of an object-oriented game development using an industry-specific or emerging programming language. Pre-requisite: CIT 246 (using the same programming language) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

CIT 277(3) Course ID:006927
Programming Ill: Language
Introduces students to complex programming concepts using an industry-standard or emerging programming language. Includes complex features of the language not previously covered in Programming I and Programming II. Completes three projects that will be developed to 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/server 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

CIT 282(4) Course ID:004737
Switching
Provides students with the skills necessary to understand and apply advanced networking concepts. Covers local area network (LAN) switching, virtual local area networks (VLANs), advanced network design concepts, advanced router configuration, and advanced network management projects. Completes one of four courses that prepares students for the Cisco Certified Network Associate (CCNA) certification exam. Pre-requisite: CIT 160 or consent of instructor. Lecture: 4 credits (60 contact hours).

Components: Lecture Attributes: Technical

CIT 283(4) Course ID:004738
Wide Area Network Design and Management
Provides students with the skills necessary to understand and apply advanced principles and applications in deploying 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 Course Equivalents: CIT 212 Attributes: Technical

CIT 284(3) Course ID:006929
Computer Forensics
Provides basic knowledge on methods and processes for computer forensics, intrusion detection, evidence collection,
Disk imaging, and report writing. Pre-requisite: CIT 180 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical
CIT 285(3) Course ID:006930
MS Windows OS Security
Provides students the knowledge and skills necessary to secure the Windows operating system. Pre-requisite: CIT 180 AND (CIT 214 OR CIT 262) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical
CIT 286(3) Course ID:006931
UNIX/Linux OS Security
Provides students the knowledge and skills necessary to secure the UNIX/Linux operating system and to utilize the UNIX/Linux operating system for security functions. Emphasizes use of freely available security tools. Pre-requisite: (CIT 180 AND CIT 217) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical
CIT 287(3) Course ID:006932
Cisco OS Security
Provides students with comprehensive understanding of network security concepts. Includes installation, troubleshooting and monitoring of network devices to maintain integrity, confidentiality and availability of data and devices. Covers implementation of hosts and perimeter edge device firewalls and defense in-depth prevention systems. Pre-requisite: CIT 167 OR CIT 212 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical
CIT 288(3) Course ID:006197
Network Security
Provides students with the knowledge and skills necessary to understand and defend against a variety of computer and network attacks. Focuses on both the offensive techniques used to launch attacks and the defensive techniques required to defend computers and networks. Pre-requisite: (CIT 180 AND 1 Network Technologies Specialization Sequence) OR Consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical
CIT 290(3) Course ID:004733
Instructor Consent Required Internship
Provides on-the-job experience in computer and information technologies, requiring a minimum of 120 clock hours of appropriate experience approved by the faculty member (40 clock hours per credit). Requires a learning contract, signed by the student, faculty member, and supervisor. Note: Course is offered on pass-fail basis only. Pre-requisite: Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical
CIT 291(3) Course ID:006198
CIT Capstone
Apply acquired techniques, knowledge, and skills to successfully analyze, design, and plan a CIT project. Develop key project management and system analysis deliverables in a portfolio. Pre-requisite: 36 credit hours of CIT Courses OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical
CIT 295(1 - 3) Course ID:004741
Independent Problems in CIT: Topic
Explores concepts and/or skills from special areas of interest in Computer & Information Technologies. Topics vary from semester to semester. May be repeated up to two times with different topics to a maximum of 6 credit hours. Pre-requisite: Consent of Instructor. Lecture: 1.0 - 3.0 credits (15 - 45 contact hours).

Components: Lecture
Attributes: Technical
CIT 299(1 - 3) Course ID:004742
Special Topics in CIT: (Topic)
Explores concepts and/or skills from special areas of interest in computer and information systems. May be repeated with different topics to a maximum of 6 credit hours. Pre-requisite: Consent of Instructor. Lecture: 1.0 - 3.0 credits (15 - 45 contact hours).

Components: Lecture
Attributes: Technical
CIT 1051(0.5) Course ID:006972
Computer Basics
Provides an introduction to the computer and the convergence of technology including computer hardware and software, the social web, green computing, security and computer ethics. Pre-requisite: RDG 20 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).

Components: Lecture
CIT 1052(0.6) Course ID:006973
System and Utility Software
Introduces file management and presents basic use of systems and utility software. Pre-requisite: RDG 20 OR Consent of Instructor. Lecture: 0.6 credits (9.0 contact hours).

Components: Lecture
CIT 1054(0.5) Course ID:006975
Globalization and the Cloud
Introduces globalization and impact and use of cloud computing. Pre-requisite: RDG 20 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).

Components: Lecture
CIT 1055(0.6) Course ID:006976
Software Basics
Provides basic use of application and programming software. Pre-requisite: RDG 20 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).

Components: Lecture
CIT 1111(0.8) Course ID:007091
Computer Hardware Essentials
Provides a practical view of hardware components. Pre-requisite: (CIT 105 AND MAT 065) OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).

Components: Lecture
CIT 1112(0.8) Course ID:007092
Computer Maintenance
Provides a practical view of troubleshooting, repair, and maintenance. Pre-requisite: CIT 1111 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).

Components: Lecture
CIT 1113(1) Course ID:007093
Operating Systems and Tools
Provides a practical view of operating system interfaces and management tools. Pre-requisite: CIT 1112 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
CIT 1114(0.8) Course ID:007094
Networking and Security
Provides a practical view of networking components and computer security. Pre-requisite: CIT 1113 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).

Components: Lecture
CIT 1115(0.6) Course ID:007095
Operational Procedures
Provides a practical view of operational procedures. Pre-requisite: CIT 1114 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).

Components: Lecture
CIT 1201(1) Course ID:006977
Basic Program Logic
Provides an introduction to computer programming and logic including program flow, data types and variables, and design tools. Pre-requisite: Digital Literacy AND MAT 085 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
CIT 1202(1) Course ID:006978
Control and Data Structures
Provides development and design basics to appropriately select control and data structures. Pre-requisite: CIT 1201 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
CIT 1203(1) Course ID:006979
Computer Program Application
Develops and design language-independent solutions, or computational thinking, to solve computer-related problems. Pre-requisite: CIT 1202 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
CIT 1251(1) Course ID:016856
Intro to Projection
Introductions to computers and basic mapping software utilization are introduced. Pre-requisite: CIT 105 OR Consent of Instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture
CIT 1252(1) Course ID:016857
Intro to Publishing Maps
Introductions to computers and basic mapping software utilization are introduced. Pre-requisite: CIT 1251 OR Consent of Instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture
CIT 1253(1) Course ID:016858
Intro to Geospatial Data
Introductions to computers and basic mapping software utilization are introduced. Pre-requisite: CIT 1252 OR Consent of Instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture
CIT 1301(0.8) Course ID:006980
Word Processing Applications
Introductions to 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
Introductions to 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
Introductions to 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 1401(0.6) Course ID:006984
JavaScript Basics
Introductions to JavaScript basics. 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/Patterns
Introduces control structures and application scripts using JavaScript. Identifies errors and code efficiency. Pre-requisite: CIT 1402 OR Consent of Instructor. Lecture: 0.6 credits (12 contact hours).
Components: Lecture

CIT 1404(0.8) Course ID:006987
JavaScript Objects/Scripts
Introduces objects and application scripts using JavaScript. Identifies errors and code efficiency. Pre-requisite: CIT 1403 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1421(0.6) Course ID:006988
C++ Overview
Introduces fundamental programming concepts using the C++ programming language. Pre-requisite: CIT 120 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 1422(0.8) Course ID:006989
C++ Control Structures
Introduces control structures for the C++ language. Identifies errors and code efficiency. Pre-requisite: CIT 1421 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1423(0.8) Course ID:006990
C++ Functions
Introduces functions for the C++ language. Identifies errors and code efficiency. Pre-requisite: CIT 1422 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1424(0.8) Course ID:006991
C++ Arrays and Pointers
Introduces arrays and pointers for the C++ language. Identifies errors and code efficiency. Pre-requisite: CIT 1423 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1441(1) Course ID:016607
Python Overview
Introduces fundamental programming concepts (including data types and control structures) using the Python programming language. Pre-requisite: CIT 120 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 1442(1) Course ID:016608
Functions and Data Structures
Introduces simple data structures, error-handling, modular programming, and file processing using the Python programming language. Pre-requisite: CIT 1441 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1443(1) Course ID:016609
Python OOP Programming
Introduces object-oriented event-driven programming and graphical user interfaces using the Python programming language. Pre-requisite: CIT 1442 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1491(1) Course ID:016592
Java Programming Structure
Introduces students to fundamental programming concepts using the Java programming language. Pre-requisite: CIT 1491 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 1492(1) Course ID:016593
Java Object Oriented Design
Introduces students to fundamental programming concepts using the Java programming language. Pre-requisite: CIT 1491 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 1493(1) Course ID:016594
The Java GUI
Introduces students to fundamental programming concepts using the Java programming language to develop graphical user interfaces. Pre-requisite: CIT 1492 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 1501(0.6) Course ID:006996
Internet Technologies
Introduces 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(0.8) 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
Introduces e-commerce concepts of the web including e-commerce standards. 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
Introduces web programming and networking with modern programming languages. Pre-requisite: CIT 1503 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 1551(1) Course ID:016715
Web Page Development Basics
Introduces basic web design through the use of HTML and CSS. Pre-requisite: CIT 1504 OR Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 1552(1) Course ID:016716
Web Page Development Formatting
Introduces web page design through the use of various formats and page layouts, multimedia, table and form design. Pre-requisite: CIT 1551 OR Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 1553(1) Course ID:016717
Web Page Development Publishing
Introduces web page design through the use of HTML and CSS. Emphasizes W3C web design and accessibility standards. Pre-requisite: CIT 1552 OR Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 1571(1) Course ID:016718
Website Design and Accessibility
Introduces web site design with particular emphasis on design involving layout, navigation, and interactivity. Pre-requisite: CIT 1571 OR Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Laboratory, Lecture

CIT 1572(1) Course ID:016719
Website Design and Accessibility
Introduces web site production software. Pre-requisite: CIT 1572 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1601(1) Course ID:007000
Basics
Introduces non-peer 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-peer 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
Introduces students to 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 credits (15 contact hours).
Components: Lecture

CIT 1611(0.3) Course ID:016318
Network Basics
Introduces students to basic concepts and components of a data network and the Internet, architecture, structure, functions, components, and models. Pre-requisite: MAT 065 OR Consent of Instructor. Pre-requisite OR Co-requisite: CIT 111 OR Consent of Instructor. Lecture: 0.3 credits (4.5 contact hours).
Components: Lecture
CIT 1612(0.4) Course ID:016319
Protocol Models
Describes the principles of simple LAN development including the OSI and TCP/IP models, the encapsulation process, and data flow between two hosts across a network. Pre-requisite: CIT 1611 OR Consent of Instructor. Lecture: 0.4 credits (6 contact hours).
Components: Lecture

CIT 1613(0.6) Course ID:016320
OSI Layer Operations
Describes the functions and responsibilities of the various OSI model layers pertaining to simple LANs. Pre-requisite: CIT 1612 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 1614(0.7) Course ID:016321
Basic IP Addressing
Introduces the format, function, and types of IP addressing used in simple LAN networks. Pre-requisite: CIT1611 OR Consent of Instructor. Lecture: 0.7 credits (10.5 contact hours).
Components: Lecture

CIT 1615(1) Course ID:016322
IP Subnetting
Introduces and designs implementation of IP addressing schemes for simple LAN networks including IPv4 and IPv6. Pre-requisite: CIT 1614 OR Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

CIT 1616(0.5) Course ID:016323
Ethernet Networks
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

CIT 1617(0.5) Course ID:016325
Configuring Switches & Routers
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

CIT 1621(1) Course ID:007004
Hardware and Operating Systems
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

CIT 1622(1) Course ID:007005
Network Connections & Resources
Presents concepts and skills for connecting computer hardware to a network. Provides overview of network addressing, services, and security. Pre-requisite: CIT 1621 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1623(1) Course ID:007006
Network Troubleshooting
Provides concepts and techniques for troubleshooting errors and issues on a network. Pre-requisite: CIT 1622 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1624(1) Course ID:007007
Network Planning
Provides skills for planning and implementing a small network. Pre-requisite: CIT 1623 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1631(1) Course ID:007008
Internet Communications
Provides a basic overview of the Internet, network models, and ISP troubleshooting. Develops skills for computer technicians, network and help desk technicians. Pre-requisite: CIT 162 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1632(1) Course ID:007009
Planning/Upgrading Networks
Provides a basic overview of networks including planning and upgrades. Develops skills required for computer technicians, network and help desk technicians. Pre-requisite: CIT 1631 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1633(1) Course ID:007010
Configuring Networks
Provides a basic overview of routing, remote access, and covers servers that provide e-mail services. Develops skills required for computer technicians, network and help desk technicians. Pre-requisite: CIT 1632 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1634(1) Course ID:007011
Maintaining Networks
Provides a basic overview of network monitoring, recovery procedures, and troubleshooting. Develops skills required for computer technicians, network and help desk technicians. Pre-requisite: CIT 1633 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1671(0.3) Course ID:016326
Intro to Switching
Covers basic concepts and operation of switched networks, including Layer 2 switch and router configuration. Pre-requisite: CIT 1671 OR Consent of Instructor. Lecture: 0.3 credits (4.5 contact hours).
Components: Lecture

CIT 1672(0.5) Course ID:016327
Enhanced Switching
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

CIT 1673(0.6) Course ID:016328
Routing Processes
Covers operations 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 1611 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 1674(0.8) Course ID:016329
Inter-VLAN Routing
Describes the operation and configuration of routing between VLANs in a small network. Helps students configure and troubleshoot routers and switches and resolve common issues. Pre-requisite: CIT 1672 AND CIT1673 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1675(0.5) Course ID:016330
Routing Protocols & RIP
Describes dynamic routing protocols. Covers basic concepts and configuration of RIP-1 and RIP-2. Pre-requisite: CIT 1673 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

CIT 1676(0.5) Course ID:016331
OSPF
Describes the operation and basic 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

CIT 1677(0.5) Course ID:016332
Access Control Lists
Describes standard, extended, and named access control lists (ACLs), for IPv4 and IPv6 in a small network. Pre-requisite: CIT 1611 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

CIT 1678(0.8) Course ID:016318
DHCP and NAT
Covers operation and configuration of DHCP and related concepts. Pre-requisite: CIT 105 OR OST 1050 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1701(0.6) Course ID:007013
Database Concepts
Provides an overview of database and database management system concepts. Pre-requisite: (CIT 105 OR OST 1050) AND (MAT 085 OR MAT 126) OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 1702(1) Course ID:007014
Database Modeling and Design
Provides an overview of database internal design models, normalization, and network data models. Pre-requisite: CIT 1701 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1703(0.8) Course ID:007015
Database Implementation
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

CIT 1704(0.6) Course ID:007016
Database Admin and Management
Provides an overview of application strategies and methods including administration, performance tuning, backup, and recovery. Pre-requisite: CIT 1703 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 1711(1) Course ID:016334
Database Creation using SQL
Introduces SQL techniques used in database/relational creation. Pre-requisite: CIT 120 AND CIT 170, OR consent of instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 1712(1) Course ID:016335
Basic Data Retrieval using SQL
Examines SQL techniques for data retrieval and organization. Pre-requisite: CIT 1711. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 1713(1) Course ID:016336
Advanced SQL Techniques
Applies SQL techniques for multiple table queries, functions, and subqueries. Pre-requisite: CIT 1712. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1801(0.8) Course ID:007017
Security Concepts
Introduces basic security concepts and methodologies. Assists in the preparation of the COMPTIA Security+ examination. Pre-requisite: (CIT 105 OR OST 1050) AND (CIT 160 OR CIT 161) OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1802(0.8) Course ID:007018
Threats and Vulnerabilities
Introduces threats and vulnerabilities in relation to computer and network devices. Pre-requisite: CIT 1801 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture
CIT 1803(0.8) Course ID:007019
Network Security
Introduces basic network security concepts and methodologies including application, data, and host security, access control, and identity management. Pre-requisite: CIT 1802 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1804(0.6) Course ID:007020
Cryptography
Introduces cryptography, tools, and management of keys and certificates. Pre-requisite: CIT 1803 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 1821(0.8) Course ID:007021
Security Defense and Protocols
Presents information and skills required to secure computers and networks from attacks. Pre-requisite: CIT180 or consent of instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1822(0.8) Course ID:007022
Firewalls
Presents information and techniques for configuring and using firewalls to secure computers and networks. Pre-requisite: CIT 1821 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 1823(0.6) Course ID:007023
Perimeter Testing
Performs methods and skills for conducting perimeter defense testing against attacks. Pre-requisite: CIT 1822 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 1841(0.8) Course ID:007025
Ethical Hacking Concepts
Presents concepts about ethical hacking. Pre-requisite: CIT 180 or consent of instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1842(1) Course ID:007026
Computer/Network Attacks
Presents various types of attacks and exploits against computers and networks. Pre-requisite: CIT 1841 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1843(0.8) Course ID:007027
Malicious Software and Defense
Presents effective defensive techniques against real attacks. Pre-requisite: CIT 1842 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1844(0.4) Course ID:007028
Incident Handling
Provides concepts and techniques for proper incident handling and documentation. Pre-requisite: CIT 1843 OR Consent of Instructor. Lecture: 0.4 credits (6 contact hours).
Components: Lecture

CIT 2091(1) Course ID:016595
Advanced Switching
Describes the operation and configuration of advanced switching technologies in networks, including STP, RSTP, and 802.1Q. Pre-requisite: CIT 167 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 2092(1) Course ID:016596
Single- and Multi-area OSPF
Covers advanced single-area OSPF and multi-area OSPF operation and configuration in both IPv4 and IPv6 networks. Pre-requisite: CIT 2091. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 2093(1) Course ID:016597
EIGRP
Covers the operation and configuration of EIGRP in both IPv4 and IPv6 networks. Pre-requisite: CIT 2092 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 2121(1.2) Course ID:016722
WANs, PPP, and Frame Relay
Covers WAN technologies and network services used in complex networks, including PPP and Frame Relay. Enables students to understand the selection criteria design principles of WAN technologies to meet network requirements. Pre-requisite: CIT 2091 or Consent of Instructor. Lecture: 1.2 credits (18 contact hours).
Components: Lecture

CIT 2122(1.2) Course ID:016723
Configuring Connections
Covers configuration and troubleshooting of common networking operations including Dynamic Host Configuration Protocol (DHCP) and Network Address Translation (NAT). Explains network monitoring, troubleshooting tools, and strategies to resolve common network issues. Pre-requisite: CIT 2091 or Consent of Instructor. Lecture: 1.2 credits (18 contact hours).
Components: Lecture

CIT 2123(1) Course ID:016724
Securing Network Access
Covers network security tools including Access Control Lists (ACL) and Virtual Private Networks (VPN) in a complex network. Enables students to successfully configure network devices to implement security on networks. Pre-requisite: CIT 2092 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 2124(0.6) Course ID:016725
Network Design
Covers WAN technologies (specifically the Cisco Enterprise Architecture model) for use in complex networks. Introduces emerging enterprise architecture models, such as Borderless Network, DataCenter/Virtualization, and Collaboration architectures. Pre-requisite: CIT 2093 or Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 2131(0.6) Course ID:007029
Window OS Installation & Setup
Provides concepts and skills for installation, setup, and management of the current Microsoft Windows operating system. Assists in the preparation of exams in the Microsoft certification exam series. Pre-requisite: CIT 211 and (CIT 160 OR CIT 161) OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 2132(0.6) Course ID:007030
Network Connectivity
Provides concepts and skills for managing network connections, configuring IP settings, and network settings in the current Microsoft Windows operating system environment. Assists in the preparation of exams in the Microsoft certification exam series. Pre-requisite: CIT 2131 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 2133(0.6) Course ID:007031
Windows OS Resources
Provides concepts and skills for managing user accounts and access to resources in the current Microsoft Windows operating system environment. Assists in the preparation of exams in the Microsoft certification exam series. Pre-requisite: CIT 2132 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 2134(0.6) Course ID:007032
Mobility Configurations
Provides concepts and skills for configuring mobility options and security in the current Microsoft Windows operating system environment. Assists in the preparation of exams in the Microsoft certification exam series. Pre-requisite: CIT 2133 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 2135(0.6) Course ID:007033
Monitoring Windows Systems
Provides concepts and skills for managing updates and local performance, monitoring system performance and resource usage, configuring backups, system recovery, and troubleshooting the boot process in the current Microsoft Windows operating system environment. Assists in the preparation of exams in the Microsoft certification exam series. Pre-requisite: CIT 2134 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).

CIT 2141(1) Course ID:007096
GS Server Concepts
Presents an overview of network concepts such as TCP/IP addressing and subnetting. Provides concepts and skills to install and setup Windows Server. Assists in the preparation of exams in the Microsoft certification exam series. Pre-requisite: CIT 111 and (CIT 160 OR CIT 161) OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 2142(1) Course ID:007097
Server Management Services
Presents an overview of network concepts such as DNS, Hyper-V, DHCP, and DFS. Assists in the preparation of exams in the Microsoft certification exam series. Pre-requisite: CIT 2141 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 2143(1) Course ID:007098
Server Role Policy
Presents skills and knowledge to configure and manage server role policy and security compliance. Assists in the preparation of exams in the Microsoft certification exam series. Pre-requisite: CIT 2142 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 2151(0.75) Course ID:016337
Initial Server Deployment
Introduces skills necessary to install and configure Microsoft Windows Server. Covers installation & configuration of a file server including update policy, file and folder access policies and security at an intermediate level. Pre-requisite: CIT 214 OR Consent of Instructor. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture

CIT 2152(0.75) Course ID:016338
Administering the Server
Introduces skills to administer a Windows Server deployment. Covers server infrastructure management, remote access configuration, and network policy implementation in an enterprise environment. Pre-requisite: CIT 2151 OR Consent of Instructor. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture
CIT 2153(0.75) Course ID:016339
Administering the Domain
Provides students with the knowledge and skills to design, develop, and evaluate databases and web servers including an integrated web database application in ecommerce and Web scripting. Covers creation of database-driven web sites. Pre-requisite: CIT 2152 or Consent of Instructor. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture

CIT 2154(0.75) Course ID:016340
Advanced Administration Topics
Covers skills needed to administer a Windows Server Domain 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).
Components: Lecture

CIT 2181(1) Course ID:016610
Advanced Active Directory
Covers the advanced configuration tasks necessary to deploy, manage and maintain a Windows Server environment, including advanced network and file services. Helps prepare students to implement a core Windows Server 2012 infrastructure in an enterprise environment. Pre-requisite: CIT 214. Lecture: 1.0 credits (15 contact hours).

CIT 2182(1) Course ID:016611
Server High Availability
Covers the advanced configuration tasks necessary to deploy, manage and maintain a Windows Server environment, including Dynamic Access Control, network load balancing, and Failover Clustering. Helps prepare students to implement a core Windows Server 2012 infrastructure in an enterprise environment. Pre-requisite: CIT 2181 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

CIT 2183(1) Course ID:016612
Disaster Recovery & A&D Services
Covers the advanced configuration tasks necessary to deploy, manage and maintain a Windows Server environment, including disaster recovery, certificate services, and Identity federation. Helps prepare students to implement a core Windows Server 2012 infrastructure in an enterprise environment. Pre-requisite: CIT 2182 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

CIT 2171(0.8) Course ID:007034
Intro to UNIX/Linux
Introduces basic Unix/Linux concepts. Pre-requisite: (CIT 111 AND CIT 160) OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 2172(0.8) Course ID:007035
Accounts, Resources, & Editors
Presents Unix/Linux commands to manage accounts, file systems and resources. Introduces editors for creating text files. Pre-requisite: CIT 2171 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 2173(1.4) Course ID:007036
File Processing and Lab
Introduces commands and scripts for file processing. Pre-requisite: CIT 2172 OR Consent of Instructor. Lecture: 0.4 credits (6 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Lecture

CIT 2251(1) Course ID:016859
Spatial Analysis
Georeferencing and digitization will be mastered. Pre-requisite: CIT 125 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 2252(1) Course ID:016860
3D Spatial Analysis
Creation of three dimensional surfaces from digital elevation models. Pre-requisite: CIT 2251 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 2253(1) Course ID:016861
Field Data
Collection of field data and the analysis of the collected data. Pre-requisite: CIT 2252 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 2254(1) Course ID:016862
Field Data Collection
Provides students with the knowledge and skills to design, develop and maintain a Windows Server environment, including advanced network and file services. Helps prepare students to implement a core Windows Server 2012 infrastructure in an enterprise environment. Pre-requisite: CIT 2182 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

CIT 2255(1) Course ID:016863
Field Data Collection and Analysis
Provides students with the knowledge and skills to design, develop and maintain a Windows Server environment, including advanced network and file services. Helps prepare students to implement a core Windows Server 2012 infrastructure in an enterprise environment. Pre-requisite: CIT 2183 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

CIT 2261(1) Course ID:016617
Reports, Forms, & Macros
Uses advanced database techniques used in forms, reports, macros, and data integration, for the preparation of data distribution on the web. Pre-requisite: CIT 130 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 2262(1) Course ID:016618
Database Queries and Tables
Uses advanced database techniques used in data integration, pivot tables and charts, and queries, for the preparation of data distribution on the web. Pre-requisite: CIT 2361. Lecture: 1.0 credits (15 contact hours).

CIT 2263(1) Course ID:016619
Advanced Database Techniques
Uses advanced database techniques used in spreadsheet layout and design, data manipulation and management, and VBA applications with Active X, for the preparation of data distribution on the web. Pre-requisite: CIT 2362. Lecture: 1.0 credits (15 contact hours).

CIT 2411(1) Course ID:016620
Advanced Application Design
Provides students with an extensive overview of designing advanced computer applications using the Visual Basic programming language. Includes graphical user interfaces, event-driven programming, and modular programming. Pre-requisite: CIT 148 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).

CIT 2481(1) Course ID:016621
OO Programming & Code Apps
Provides students with an extensive overview of designing advanced computer applications using the Visual Basic programming language. Includes object-oriented programming and advanced data types and structures. Prerequisite: CIT 2481 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).

CIT 2482(1) Course ID:016622
Validation and Processing
Provides students with an extensive overview of designing advanced computer applications using the Visual Basic programming language. Includes input validation, error-handling, and file and database processing. Prerequisite: CIT 2462 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

CIT 2491(1) Course ID:016623
Advanced Java Components
Provides students with an extensive overview of designing and developing advanced object-oriented applications using the Java programming language. Includes advanced GUI components, input and output streams (file processing), and multithreading. Pre-requisite: CIT 149 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

CIT 2492(1) Course ID:016624
Java Type Theory and Classes
Provides students with an extensive overview of designing and developing advanced object-oriented applications using the Java programming language. Includes polymorphism, inheritance, and recursion. Pre-requisite: CIT 2491 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

CIT 2493(1) Course ID:016625
Mobile Apps & Adv. Functions
Provides students with an extensive overview of designing and developing advanced object-oriented applications using the Java programming language. Includes mobile computing and other advanced topics. Pre-requisite: CIT 2492 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

CIT 2531(1) Course ID:016344
Web Servers and Applications
Provides students with the knowledge and skills to design and develop client-side and server-side applications for data driven websites. Includes development of skills related to the installation and configuration of webservers. Pre-requisite: (CIT 150 AND CIT 170) OR Approval of Level I Programming Language) OR Consent of Instructor. Lecture: 1.0 credits (15 contact hours).

CIT 2532(1) Course ID:016345
Databases and E-Commerce
Includes the study of databases and web servers in
e-commerce, transaction processing, and web scripting. Emphasizes designing and developing a functional e-commerce supporting database for a dynamic web site. Pre-requisite: CIT 2531. Lecture: 1 credit (15 contact hours).

Components: Lecture
CIT 2533(1) Course ID:016346
Integrated Web Databases
Provides students with the knowledge and skills to design, develop, and evaluate an integrated web database application. Includes the creation of a functional database driven web site. Pre-requisite: CIT 2532. Lecture: 1 credit (15 contact hours).

Components: Lecture
CIT 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 261 AND (CIT 214 OR CIT 262)) OR Consent of Instructor. Lecture: 0.5 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
CIT 2644(0.75) Course ID:007039
Windows Server Security
Provides management and monitoring of windows servers including security. Pre-requisite: CIT 2643 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours). Lab: 0.25 credits (7.5 contact hours).

Components: Lecture
CIT 2781(1) Course ID:016626
Distributed Application Design
Provides students with the knowledge and skills to design, develop, and implement Web client applications using the Visual Basic programming language. Includes advanced application and user interface design, and custom libraries. Pre-requisite: CIT 248 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture
CIT 2782(1) Course ID:016627
Active X Data Objects
Provides students with the knowledge and skills to design, develop, and implement Web client applications using the Visual Basic programming language. Includes ActiveX Objects and stored procedures. Pre-requisite: CIT 2781 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture
CIT 2783(1) Course ID:016628
Security & Distributed Apps
Provides students with the knowledge and skills to design, develop, and implement distributed and Web client applications using the Visual Basic programming language. Includes distributed applications. Pre-requisite: CIT 2752 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture
CIT 2841(0.6)
Computer Forensics Overview
Provides a computer forensics overview and presents concepts about forensics investigation. Pre-requisite: CIT 180 or consent of instructor. Lecture: 0.6 credits (9 contact hours).

Components: Lecture
CIT 2842(0.4)
Forensics Lab Setup
Provides concepts and skills for setting a computer forensics lab and data acquisition. Pre-requisite: CIT 2841 OR Consent of Instructor. Lecture: 0.4 credits (6 contact hours).

Components: Lecture
CIT 2843(1)
Digital Evidence Procurement
Provides basic knowledge on methods and processes for collection and analyzing digital evidence. Pre-requisite: CIT 2842 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
CIT 2844(1)
Investigations and Reporting
Provides basic knowledge on methods and processes for investigations and reporting. Pre-requisite: CIT 2843 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
CIT 2881(1)
Network Security Basics
Identifies importance of computer ethics in relation to hacking and defending against computer and network threats. Pre-requisite: (CIT 180 AND Level 1 Network Technologies Specialization Sequence) OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
CIT 2882(1)
Network Attacks & Lab
Provides students with the knowledge and skills to defend against a variety of computer and network attacks. Focuses on the offensive techniques used to launch attacks. Pre-requisite: CIT 2881 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours). Lab: 0.5 credit (15 contact hours).

Components: Laboratory, Lecture
CIT 2883(1)
Network Vulnerability & Lab
Provides students with the knowledge and skills necessary to identify and proactively defend against computer and network attacks. Focuses on the defensive techniques required to defend computers and networks. Pre-requisite: CIT 2882 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours). Lab: 0.5 credits (15 contact hours).

Components: Laboratory, Lecture
CIT 2911(1)
Course ID:007106
Project Management Concepts
Introduces basic project management and systems analysis concepts. Pre-requisite: 36 hours of CIT courses OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
CIT 2912(0.8)
Course ID:007107
Project Planning
Applies acquired techniques, knowledge, and skills to successfully analyze, design, and plan a CIT project. Pre-requisite: CIT 2911 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).

Components: Lecture
CIT 2913(0.6)
Course ID:007108
Project Implementation
Applies acquired techniques, knowledge, and skills to successfully implement a CIT project. Pre-requisite: CIT 2912 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).

Components: Lecture
CLAS Classical Languages and Literature
CLAS 131(3) Course ID:000274
Medical Terminology from Greek and Latin
Primarily for pre-medical, pre-dental, pre-nursing, and pre-veterinary students, but others will be admitted for help in vocabulary building.

Components: Lecture
Attributes: Other
CM 110(3) Course ID:000182
Fundamentals of Machine Tools - A
Provides the basic principles needed for a solid foundation in machine tool technology. Covers shop safety, bench work, drill press, power saw, measurement, and mills. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours/30:1 ratio).

Components: Laboratory, Lecture
Attributes: Technical
CM 112(3) Course ID:000183
Fundamentals of Machine Tools - B
Provides the basic principles needed for a solid foundation in machine tool technology. Includes shop safety, bench work, drill press, power saw, measurement, and lathes. Pre-requisite: (CM 110 with a grade of C or better) OR Consent of Instructor. Laboratory: 3.0 credits (90 contact hours).

Components: Laboratory
Attributes: Technical
CM 114(6) Course ID:000184
Fundamentals of Machine Tools
Provides the basic principles needed for a solid foundation through the machine tool program. Includes safety and bench work. Introduces the basic power equipment and machine tools that are used in the machine trades which include: drill presses, power saws, measurement instruments, mills and lathes. Lecture: 1.0 credit (15 contact hours). Lab: 5.0 credits (150 contact hours/30:1 ratio).

Components: Laboratory
Attributes: Technical
CM 118(2) Course ID:000185
Metrology/Control Charts
Provides the basic principles in using precision measurement instruments and their application to inspection and quality control. Lecture/Lab: 2.0 credits (45
Applied Machining I

Course ID: 001816

CMM 120(3)

Includes areas and machine concepts: safety, measurement, layout work, bench work, saws, drills, drilling machines, mills and lathes. Lecture: 2.0 credits (30 contact hours).

Components: Lecture

Attributes: Technical

Applied Machining II

Course ID: 001817

CMM 122(3)

Carries the student to higher levels in the operation of machine tools. Pre-requisite: (CMM 120 with a grade of C or greater) or Consent of Instructor. Lab: 3.0 credits (90 contact hours).

Components: Laboratory, Lecture

Attributes: Technical

Manual Programming

Course ID: 001820

CMM 132(3)

Introduces the student to CNC codes and programming, set-up and operation of CNC machine tools. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours/30:1 ratio).

Components: Laboratory, Lecture

Attributes: Technical

Manual Programming CAD/CAM/CNC

Course ID: 001821

CMM 134(6)

Introduces the student to CAD/CAM/CNC systems which includes CAM software. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours/30:1 ratio).

Components: Laboratory, Lecture

Attributes: Technical

Intro. to Programming & CNC Machines

Course ID: 006243

CMM 138(6)

Introduces CAD/CAM and CNC equipment. Covers program codes and set up operations used on a variety of machine tools including technologies like waterjet. Pre-requisite: ((CMM 110 and CMM 112) or (CMM 114) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 6.0 credits (150 contact hours) (30:1 Ratio Lab).

Components: Lecture

Attributes: Technical

Shop Theory

Course ID: 005089

CMM 150(2)

Covers shop theory, processes, and basic concepts of machine tool applications utilized in the tool and die field. Includes areas and machine concepts: safety, measurement, layout work, bench work, saws, drills, drilling machines, mills and lathes. Lecture: 2.0 credits (30 contact hours).

Components: Lecture

Attributes: Technical

Machinery’s Handbook and Metallurgy

Course ID: 005090

CMM 151(3)

Introduces the Machinery’s Handbook as a reference source for solving manufacturing problems and provides aworking knowledge of the principles and concepts contained in the Handbook. Explores processes involved inheat-treating steels to a specific hardness, toughness, wear capability, Covers the identification, classification, application, and processing of Tool Steels. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Technical

Jigs, Fixtures and Gaging

Course ID: 005091

CMM 152(3)

Introduces jigs, fixtures and work holding devices, including separate uses and principles. Applies machining processes to design jigs and fixtures. Uses print knowledge to identify part datums for gaging points. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Technical

Die Theory

Course ID: 005093

CMM 154(3)

Presents basic die making including die sets, punch presses, blanking dies, piercing dies, screw and dowelholes, punch and punch blocks, die life, bending dies, pilots, die block construction, stock strippers, stackguides, progressive dies, stock strips and secondary operations of notch, trim, and shave. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Technical

Basic Bench and Machine Processes

Course ID: 005355

CMM 160(4)

Provides skills and knowledge needed to progress through the machine tool program. Includes safety and benchwork. Applies knowledge to a tool and die environment. Introduces the basic power equipment and machine tooling in a tool and die shop. Lab: 4.0 credits (120 contact hours).

Components: Laboratory

Attributes: Technical

Industrial Machining I

Course ID: 001822

CMM 210(3)

Covers the classification of metals, identification of tool steels and their applications. Requires the student to perform advanced milling machine operations that simulate industry standards. Pre-requisite: ((CMM 112 or CMM 114) with a grade of C or greater) or Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours/30:1 ratio).

Components: Laboratory, Lecture

Attributes: Technical

Industrial Machining II

Course ID: 001823

CMM 212(3)

Permits the student to receive instruction in any area where advanced work is needed or an area where there is student interest. Pre-requisite: (CMM 210 with a grade of C or greater) or Consent of Instructor. Lab: 3.0 credits (90 contact hours).

Components: Lecture

Attributes: Technical

Advanced Machining Techniques for Manufacturing

Course ID: 005530

CMM 218(8)

Allows for the construction of electrodes and the production of parts by the use of an Electrical Discharge Machining (EDM) and cylindrical grinding. Pre-requisite: Consent of Instructor. Lab: 6.0 credits (180 contact hours).

Components: Laboratory, Lecture

Advanced Industrial Machining

Course ID: 001825

CMM 220(4)

Introduces the student to conversational programming of CNC machine tools. Pre-requisite: Consent of Instructor. Lecture/Lab: 6.0 credits (150 contact hours).

Components: Laboratory

Attributes: Technical

Advanced Industrial Machining II

Course ID: 001826

CMM 222(2)

Advances students to a higher level of industrial standards by exposing them to additional tasks using acylindrical grinder. **National Standards require EDM and cylindrical grinder training. Colleges lacking this equipment can only present theory only. KCTCS is presently trying to acquire EDM and cylindrical grinder. Pre-requisite: ((CMM 130 and CMM 132) or (CMM 134) and (CMM 212 or CMM 214) with a grade of C or greater) or Consent of Instructor. Lecture: 2.0 credits (60 contact hours/30:1 ratio).

Components: Laboratory

Attributes: Technical

Advanced Industrial Machining

Course ID: 001827

CMM 224(6)

Introduces the student to conversational programming of CNC machine tools. Pre-requisite: Consent of Instructor. Lecture/Lab: 6.0 credits (150 contact hours).

Components: Lecture

Attributes: Technical

Instructor Consent Required

Course ID: 001828

CMM 230(6)

Designs the student to conversational programming of CNC machine tools. Pre-requisite: Consent of Instructor. Lecture/Lab: 6.0 credits (150 contact hours).

Components: Lecture

Attributes: Course Also Offered in Modules, Technical

CNC Machines & Coding Practices

Course ID: 006244

CMM 234(6)

Introduces the student to conversational programming of CNC machine tools to include conversational setup andrun
Advanced 3D Code Sequencing and Macro Systems
Introduces 3-D Programming using CAM systems to effect engineering changes that enhance productivity. Uses the CAM system to create and produce complex 3-D parts. Pre-requisite: ((CMM 130 and CMM 132) or (CMM 134 or CMM 138) with a grade of C or greater) or Consent of instructor. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

CMS Communications

Advanced 3D Code Sequencing and Macro Systems
Introduces 3-D Programming using CAM systems to effect engineering changes that enhance productivity. Uses the CAM system to create and produce complex 3-D parts. Pre-requisite: ((CMM 130 and CMM 132) or (CMM 134 or CMM 138) with a grade of C or greater) or Consent of instructor. Lecture: 2.0 credits (15 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

CMS 240(6)
Introduction to 3-D Programming
Introduces 3-D Programming using CAM systems to effect engineering changes that enhance productivity. Uses the CAM system to create and produce complex 3-D parts. Pre-requisite: ((CMM 130 and CMM 132) or (CMM 134 or CMM 138) with a grade of C or greater) or Consent of instructor. Lecture: 2.0 credits (30 contact hours). Lab: 4.0 credits (120 contact hours or 180 clinical contact).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

Advanced Programming/Setup Practices
Uses CAM systems to effect engineering changes that enhance productivity to create and produce complex shapes on the CNC mill, lathe, EDM and water jet machines. Pre-requisite: ((CMM 2301 and CMM 2302) or (CMM 230) with a grade of C or greater) or Consent of instructor. Lecture: 2.0 credits (30 contact hours). Lab: 6.0 credits (150 contact hours).
Components: Lecture
Attributes: Technical

CMS 298(1)
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

Rejection

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: 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, interpersonal 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 credits (45 contact hours).
Components: Lecture
Attributes: OC - Oral Communication

COM 249(3) Course ID:000314
Mass Media Communication
Examines mass media messages, audiences, technologies, and regulations in a global society. Pre-requisite: Current KCTCS placement scores for College level reading and writing, or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Course Equivalents: SOC 249
Attributes: SB - Social Behavior Science

COM 252(3) Course ID:000315
Introduction to Interpersonal Communication
Examines basic verbal and nonverbal concepts affecting the communication process in various interpersonal contexts. Requires participation in written and oral activities designed to develop and improve interpersonal skills. Includes perspective-taking, relationship and conversation management, effective listening, conflict management, communication climate, communication anxiety, and cultural/gender differences in interpersonal communication. Pre-requisite Or Co-requisite: Current KCTCS placement scores for college level reading and writing, or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: OC - Oral Communication, Course Also Offered in Modules

COM 254(3) Course ID:004552
Introduction to Intercultural Communication
Introduces intercultural communication with an emphasis on the relationships between culture and communication, social/psychological variables, verbal/nonverbal language systems, intercultural communication perceptions, and conflict resolution. Includes the practical application of contemporary issues in cross-cultural interaction, media representation, and daily social interactions to intercultural communication concepts. Pre-requisite or Co-requisite: Current KCTCS placement scores for college level reading and writing, or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

COM 281(3) Course ID:000316
Communication in Small Group
Examines communication processes in small group situations including conflict, leadership, and decisionmaking. 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 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.
Components: Lecture
Attributes: Other

COM 287(3) Course ID:000317
Persuasive Speaking
Examines the processes involved in attitude change, with emphasis on the preparation and delivery of persuasive messages. Pre-requisite: COM 181. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: OC - Oral Communication

COM 288(3) Course ID:000318
Oral Interpretation
Analyzes prose and poetry for oral interpretation. Helpful to those who plan to teach 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

COM 299(3) Course ID:004257
Special Topics in Communication
A sophomore level study of a selected topic in communication. Pre-requisite: COM 181 or COM 252 or consent of instructor. Lecture: 3.0 credit hours.
Components: Lecture
Attributes: Other

COM 181(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 181(2) Course ID:015807
Basic Informative Speaking
Provides practical platform experience in developing speaking abilities to enable the student to communicate clearly in a coherent language appropriate to the presentation of informative speeches. Pre-requisite: COM 1511. Lecture: 1.0 credit (15.0 contact hours).
Components: Lecture

COM 181(3) Course ID:015808
Basic Persuasive Speaking
Provides practical platform experience in developing speaking abilities to enable the student to communicate clearly in a coherent language appropriate for the presentation of persuasive speeches. Pre-requisite: COM 1812. Lecture: 1.0 credit (15.0 contact hours).
Components: Lecture

COM 205(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 205(2) Course ID:016232
Communication in A Job Search
Provides experience in 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 205(3) Course ID:016233
Communication in Organizations
Provides experience in 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 252(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

COMM 2522(1) Course ID:005801
Communicating and Responding
Examines basic verbal and nonverbal concepts affecting the communication process in various interpersonal contexts. Topics include both verbal and nonverbal elements affecting communication between individuals settings ranging from the family, peer groups, and work contexts. Pre-requisite: COMM 2521. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

COMM 2523(1) Course ID:005802
Looking at Relational Dynamics
Examines basic verbal and nonverbal concepts affecting the communication process in various interpersonal contexts. Includes the basic needs in developing interpersonal relationship with emphasis on the types of relationships and the components involved in such relationships including compliance-gaining and conflict resolution. Pre-requisite: COMM 2522. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

COS Cosmetology

COS 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, 6-1
This course is designed to cultivate proper attitude and behavior patterns needed to create a successful Cosmetologist. Kentucky Statutes and regulations, safety, bacteriology, sanitation, infection control, First aid treatment, structure and disorders of the nail are studied. An introduction to the basic fundamentals of health, skin and nail care, hair styling and shaping, manicures and pedicures, chemical and thermal services, and wigs. The student in developing manipulative skills and practicing procedures utilizes mannequins and classmates. After 300 hours student begin to apply procedures on clients under the direct supervision of the instructor.
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

COS 116(14) Course ID:001214
Cosmetology II, 6-2
A study of basic chemistry with emphasis placed on the physical and chemical properties of cosmetic materials. Electricity and light therapy are discussed and an in-depth study of anatomical structures affected by 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
Provides the additional laboratory time to meet licensure requirements of 1800 clock hours. Pre-requisite: Consent of Instructor: Lecture: 1.0 - 8.0 credit hours (15 - 120 contact hours). Laboratory: 1.0 - 8.0 credit hours (30 - 240 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
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 StateBoard 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 diseased/health disorders, and the study of beauty salon management including the practice of interacting with clients, coworkers, and supervisors. (Students practice on classmates and progress to work on clients.) Lecture: 5 credits (75 contact hours). Laboratory: 8 credits (240 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

COS 152(13) Course ID:001225
Applied Nail Technology
Continues the study of nail technology. Includes a comprehensive written and practical exam for 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 conditions and disorders. Pre-requisite: COS 105 or Consent of Instructor. Lecture/Lab: 14.0 credits (360 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

COS 210(13) Course ID:001233
Student Teaching I
Introduces teaching methods used in training cosmetology and nail technology students. Inclusive of theory, class methods of lecture, media use and testing methods. Introduces methods used to teach the practical application of skills. Pre-requisite: Esthetician’s License; One year work experience, apprenticeship/externship 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 210. 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 218(20) Course ID:015567
Teaching I
Introduces teaching methods used in training cosmetology, esthetics, and nail technology students. Demonstrates teaching methods of theory, media use, and testing methods. Develops and applies the methods used to teach theoretical/practical application of skills. Pre-requisite: Esthetician’s License, one year work experience, and Apprentice Cosmetologists Instructor’s License. Lecture: 6.0 credits (90 contact hours). Lab: 14.0 credits (420 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

COS 217(20) Course ID:015568
Teaching II
Expands teaching methods used in training cosmetology, esthetics, and nail technology students. Demonstrates advanced teaching methods of theory, media use, and testing methods. Develops and applies methods used to teach theoretical/practical application of skills. Provides preparatory work to prepare the apprentice instructor for the Kentucky Board of Hairdressers and Esthetician’s instructor examination. Pre-requisite: COS 216. Lecture: 6.0 credits (90 contact hours). Lab: 14.0 credits (420 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

COS 218(14) Course ID:001215
Cosmetology III, 6-3
Provides knowledge of the structure and function of the human body, including the interaction of all the bodysystems in maintaining homeostasis. All phases of beauty salon management are studied, including interacting with clients, coworkers, and supervisors. Laboratory experience is advanced with performance expectations set to 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: Technical

COS 235(1-8) Course ID:005413
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 credits (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 an 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:004997
Cosmetology Skills A
Focus on developing design elements of hair. Laboratory: 1 credit (45 contact hours).
Components: Laboratory

COS 1145(1) Course ID:004998
Hair Structure, Disorders and Diseases
Focuses on the structure, diseases, and disorders of hair. Lecture: 1 credit (15 contact hours).
Components: Lecture

COS 1146(1) Course ID:004999
Cosmetology Skills B
Provides basic principles of hair design and safety. Laboratory: 1 credit (45 contact hours).
Components: Laboratory

COS 1147(1) Course ID:005000
Nail Structure: Diseases and Disorders
Focuses on nail structure, diseases and disorders. Lecture: 1 credit (15 contact hours).
Components: Lecture

COS 1148(1) Course ID:005001
Skin: Structure, Disorders and Diseases
Focuses on skin structure, diseases and disorders. Lecture: 1 credit (15 contact hours).
Components: Lecture

COS 1161(3) Course ID:005002
Introduction to Cosmetic Chemistry
Basic study of cosmetic chemistry. Lecture: 1 credit (15 contact hours). Laboratory: 2 credits (90 contact hours).
Components: Laboratory, Lecture

COS 1162(3) Course ID:005003
Chemical Services
Basic chemical services. Lecture: 1 credit (15 contact hours). Laboratory: 2 credits (90 contact hours).
Components: Laboratory, Lecture

COS 1164(1) Course ID:005005
Cosmetic Techniques Lab
Provides an opportunity to apply chemical services. Focuses on perms, color application and straightening of hair. Laboratory: 1 credit (45 contact hours).
Components: Laboratory

COS 1165(1) Course ID:005006
Electricity & Light Therapy for Cosmetology
Study of electricity and light therapy. Lecture: 1 credit (15 contact hours).
Components: Lecture

COS 1166(1) Course ID:005007
Intermediate Hair Design Lab
Continues the application of hair design theory and skills. Laboratory: 1 credit (45 contact hours).
Components: Laboratory

COS 1167(1) Course ID:005008
Facials
Theory of facials. Lecture: 1 credit (15 contact hours).
Components: Lecture

COS 1168(1) Course ID:005009
Makeup and Hair Removal
Provides the theoretical base for application of makeup. Hair removal principles and techniques. Lecture: 1 credit (15 contact hours).
Components: Lecture

COS 2181(3) Course ID:005010
Anatomy for Cosmetology I
Study of the structures and functions of the human body. Application of these studies in cosmetology services. Lecture: 1 credit (15 contact hours). Laboratory: 2 credits (90 contact hours).
Components: Lecture, Laboratory
COS 2182(3) Course ID:005011
Anatomy for Cosmetology II
Study of the interaction of all body systems and the maintenance of homeostasis. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (90 contact hours).
Components: Laboratory, Lecture
COS 2183(3) Course ID:005012
Salon Management
The study and application of all phases of salon management. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (90 contact hours).
Components: Laboratory, Lecture
COS 2184(1) Course ID:005013
Intermediate Chemical Services Lab
The study of the interaction of all the body systems in maintaining homeostasis. Application of these studies in cosmetology services. Pre-requisite: (COS 1161 and COS 1162 and COS 1163 and COS 1164 and COS 1165 and COS 1166 and COS 1167 and COS 1168) or COS 116 with a grade of C or greater. Laboratory: 1 credit (45 contact hours).
Components: Laboratory
COS 2185(1) Course ID:005014
Hair Enhancements
Study of artificial hair. Lecture: 1 credit (15 contact hours).
Components: Lecture
COS 2186(1) Course ID:005015
Client Services Lab
Provides the student with the opportunity to demonstrate client services. Emphasis is on communication and positive public relation techniques. Laboratory: 1 credit (45 contact hours).
Components: Laboratory
COS 2187(1) Course ID:005016
Intermediate Hair Shaping
Hair shaping techniques for the intermediate practitioner. Lecture: 1 credit (15 contact hours).
Components: Lecture
COS 2188(1) Course ID:005017
Cosmetology Trends and Issues
Trends and issues of cosmetology are covered. Lecture: 1 credit (15 contact hours).
Components: Lecture
CPR Cardiopulmonary Resuscitation
CPR 100(1) Course ID:001239
CPR for Healthcare Professionals
Cardiopulmonary resuscitation (Adult/Infant/Child) is a course designed to teach current emergency techniques relative to cardiac and/or respiratory arrest, as put forth by the American Heart Association, National Safety Council or American Red Cross. The American Heart Association, National Safety Council or American Red Cross standardized course qualifies a student for certification of cardiopulmonary resuscitation.
Components: Lecture
Attributes: Technical
CRA Building Controls Technician
CRA 230(5) Course ID:016091
Building Controls I
Develops techniques for servicing, troubleshooting, and performing necessary maintenance on modern building control system devices. Emphasizes electrical and mechanical safety. Covers equipment used in building control systems. Pre-requisite: ACR 100 and (ACR 102 or comparable electrical course) and 10 semester contact hours of Building Controls Technician technical electives or consent of instructor. Lecture/Lab: 5.0 credits (105 contact hours).
Components: Lecture
Attributes: Technical
CRA 232(5) Course ID:016092
Building Controls II
Develops techniques for configuring, tuning and troubleshooting a networked building control system. Covers networked field equipment and central computer-controlled building control systems. Pre-requisite: CRA 230 or consent of instructor. Lecture/Lab: 5.0 credits (105 contact hours).
Components: Lecture
 Attributes: Technical
CRJ Criminal Justice
CRJ 100(3) Course ID:004191
Introduction to Criminal Justice
Provides an introduction to the philosophical and historical background of the criminal justice systems, processes, purposes and functions. Includes an evaluation of the criminal justice system today, including trends and career orientation. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credit hours (45 contact hours).
Components: Lecture
Attributes: Technical
CRJ 102(3) Course ID:004192
Introduction to Corrections
Provides an introduction to the development of correctional systems, and the processes, procedures, and issues of current correctional systems, both juvenile and adult. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credit hours (45 contact hours).
Components: Lecture
Attributes: Technical
CRJ 107(1) Course ID:004194
Introduction to Firearms
Provides a working knowledge of the use, care, and safety of firearms. The course is of nomenclature design and will be at the discretion of each individual college whether live ammunition will be utilized by the students and faculty to demonstrate the firing of weapons and marksmanship practice. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical
CRJ 108(4) Course ID:007357
Advanced Firearms and Less Than Lethal Weapons
Provides an advanced working knowledge of the use, care, safety, and legal application of firearms and less than lethal weapons. Includes live fire with the use of pistol, shotgun/rifle, and less than lethal weapons. Pre-requisite: CRJ 107 and (Current placement scores for RDG 030 or higher or completion of RDG 020) and (Current placement for ENC 091 or higher or completion of ENC 090). Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (69 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
CRJ 110(3) Course ID:004195
Principles of Asset Protection
Provides an introductory understanding of private security procedures. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
CRJ 201(3) Course ID:000899
Introduction to Criminalistics
Provides a basic knowledge of crime scene protection, collection, preservation, and identification of evidence, including proper search, dusting latent prints, casting fingerprint classification, and use of 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 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 030 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
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
CRI 215(3) Course ID: 004202
Introduction to Law Enforcement
Provides an introduction to the study of law enforcement. Introduces the historical developments of law enforcement, police operations, and programs. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CRI 216(3) Course ID: 004203
Criminal Law
Provides an overview of the definitions and functional components of criminal law in the field of criminal justice. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CRI 217(3) Course ID: 004204
Criminal Procedures
Provides an overview of the different criminal procedural laws by examining the specific Amendments that outline the guidelines of the administration of substantive laws. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
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 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. Lecture: 1.0 credit (15 contact hours). Lab: 3.0 credits (91.5 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: 3.0 credits (45 contact hours).
Components: 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.

CRI 224(4) Course ID: 087359
Basic Traffic Collision Investigation
Introduces basic vehicle collision investigation, from a law enforcement perspective, and entails evidence collection and investigative 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 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 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). 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, inmate 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
Introduces research, study, and discussion of current and emerging topics, issues, and trends in corporate and industrial security. Covers basic corporate and industrial security procedures and the roles of the key personnel within the private security arena. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CRI 245(3) Course ID: 006232
Introduction to Business and Industrial Fraud
Introduces research, study, and discussion of current and emerging topics, issues, and trends in business and industrial fraud. Covers basic concepts of occupational fraud and abuse and the roles of the key personnel within the criminal justice system. Includes practical procedures for defining, identifying, and investigating business and industrial fraud. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CRI 277(3) Course ID: 006904
Introduction to Criminology
Introduces the study of criminal behavior by focusing on crime trends and patterns, the amount of crime, and the theories of crime. Theories of crime 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 279(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 coursework. 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 capstone exam that all program graduates must complete. Pre-requisite: (CRJ 100 and CRJ 202 and CRJ 204 and CRJ 216 and CRJ 217) AND/OR consent of Program Coordinator. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical

CRI 296(3) Course ID: 016629
Criminal Psychology
Provides a basic understanding of the psychological theories explaining criminal behavior. Includes topics regarding the effects of the brain’s structural and functional processes on behavior, evidence based psychological techniques for treating criminal behavior, behavioral profiling, basic overview of common mental health issues when dealing with offenders, and proven psychological techniques for calming problem situations thereby creating a safer and more efficient solution. Pre-requisite: CRJ 100, PSY 110. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
the students' educational objectives. (Students participating in the practicum do not receive compensation. May be taken for 1-8 credits.) Pre-requisite: Consent of Instructor. Practicum: 1.0 - 8.0 credit hours.

Components: Practicum
Attributes: Technical

CRT 198(1 - 8) Course ID:000934
Instructor Consent Required
Practicum
Provides supervised on-the-job work experience related to the students' educational objectives. (Students participating in the practicum do not receive compensation. May be taken for 1-8 credits.) Pre-requisite: Consent of Instructor. Practicum: 1.0 - 8.0 credit hours.

Components: Practicum
Attributes: Technical

CRT 199(1 - 8) Course ID:000933
Instructor Consent Required
Cooperative Education
Provides supervised on-the-job work experience related to the students' educational objectives. (Students participating in the Co-op Education program receive compensation for their work. May be taken for 1 - 8 credits.) Pre-requisite: Consent of Instructor. Co-Op: 1.0 - 8.0 credit hours.

Components: Co-Op
Attributes: Technical

CRT 230(6) Course ID:000936
Structural Analysis and Damage Repair
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 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 (90 contact hours).

Components: Lecture
Infrastructure

CS 100(2) Course ID:000828
Introduction to Collision Repair
Introduces the student to safe, sanding, grinding, pulling, roughing and filling; the use of tools and equipment; and preparing and priming automobile panels through lectures and demonstration. Lecture: 2.0 (30 contact hours).

Components: Lecture
Attributes: Technical

CRT 100(2) Course ID:000929
Non-Structural Analysis and Damage Repair
Pre-requisite: CRT 100 or CRT 200. Lab: 2.0 credits (30 contact hours).

Components: Laboratory
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 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 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 199(1 - 8) Course ID:000934
Instructor Consent Required
Practicum
Provides supervised on-the-job work experience related to the students' educational objectives. (Students participating in the practicum do not receive compensation. May be taken for 1-8 credits.) Pre-requisite: Consent of Instructor. Practicum: 1.0 - 8.0 credit hours.

Components: Practicum
Attributes: Technical

CRT 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 demonstration of 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. Lecture: 6.0 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

CRT 291(1) Course ID:000940
Special Projects I
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
Special Projects II
Designed for students to satisfactorily complete collision repair tasks or to enhance their skills in the occupational area. Pre-requisite: Consent of Instructor. Lab: 2.0 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

CRT 295(3) Course ID:000942
Special Projects III
Special Projects III
Designed for students to satisfactorily complete collision repair tasks or to enhance their skills in the occupational area. Pre-requisite: Consent of Instructor. Lab: 3.0 credits (135 contact hours).

Components: Laboratory
Attributes: Technical

CRT 298(2) Course ID:000943
Instructor Consent Required
Practicum
Provides supervised on-the-job work experience related to the students' educational objectives. (Students participating in the practicum do not receive compensation.) Pre-requisite: Consent of Instructor. Independent Study: 2.0 credits (150 contact hours).

Components: Practicum
Attributes: Technical

CS 115(3) Course ID:000321
Introduction to Computer Programming
This course teaches introductory skills in computer programming using a high-level computer programming language. There is an emphasis on both the principles and practice of computer programming. Covers principles of problem solving by computer and requires completion of a number of programming assignments. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: University Course (University of Kentucky)

CS 215(4) Course ID:007199
Introduction to Program Design, Abstraction, and Problem Solving
The course covers introductory object-oriented problem solving, design, and programming. Fundamentals of 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 217(3) Course ID:000323
Introduction to Software Engineering
Software engineering topics include: life cycles, metrics, requirements specifications, design methodologies, validation and verification, testing, reliability and project planning. Implementation of large programming projects using object-oriented design techniques and software tools in a modern development environment will be stressed. Pre-requisites: 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 270(3) Course ID:010097

Systems Programming
This course provides an introduction to computer systems and explores computer architecture, operating systems, and networks from a programmer’s perspective. The course also introduces advanced programming and debugging tools. Topics include hardware instruction sets, machine language, and the programming and web protocols, and common security attacks and solutions. Pre-requisites: EE280 and CS216. Lecture: 3.0 credits (45 contact hours)

Components: Lecture
Attributes: University Course (University of Kentucky)

CS 275(4) Course ID:007200

Discrete Mathematics
Attributes: University Course (University of Kentucky)

CUL 100(2) Course ID:004209

Introduction to Culinary Arts
Provides an introduction to several aspects of the food industry. Includes an overview of the history of the profession and current career opportunities and trends. Introduces proper terminology for various types of equipment and cooking methods. Lecture: 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical

CUL 105(2) Course ID:004210

Applied Introduction to Culinary Arts
Provides an applied introduction to several aspects of the food industry. Includes an overview of the history of the profession and current career opportunities and trends. Introduces proper terminology for various types of equipment and cooking methods in a laboratory setting. Lecture: 1.0 credit (15 contact hours), Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

CUL 125(2) Course ID:004212

Sanitation and Safety
Develops an understanding of the basic principles of sanitation and safety and to be able to apply them in the food service operations. 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 pastry, 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 artistry, and cake decorating. Fundamentals of baking science along with advanced finishing techniques. Pre-requisite: CUL 215, 26 credits (30 contact hours); Laboratory: 2.0 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 with different co-requisites: CUL 211 or consent of the instructor.

Components: Laboratory, Lecture
Attributes: Technical

CUL 250(4) Course ID:004211

Garde Manger
This course includes the production of hot and cold appetizers, hors d’oeuvre, canapes and salads. Garnishing techniques along with cold food preparation are discussed. Decorative skills as related to buffets and exhibits are explored. Pre-requisite: CUL 100 or Consent of instructor.

Components: Laboratory, Lecture
Attributes: Technical

CUL 260(4) Course ID:004218

International & Classical Cuisine
This course focuses on the study and preparation of international and classical cuisine. Pre-requisite: CUL 100 and CUL 200, Pre-requisite or Co-requisite: (CUL 211) and CUL 215 and CUL 240 or consent of instructor. Lecture/Lab: 4.0 credits (90 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

CUL 270(3) Course ID:004219

Human Relations Management
This course provides information necessary for the transition from student to a supervisory role in the Foodservice Industry. Styles of leadership and skill development in human relations and personnel management are also covered. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CUL 280(3) Course ID:004221

Cost and Control
Provides students with the opportunity to perform business and math skills using mathematical function relationships to food service operations in the areas of cost, control, purchasing and receiving. Pre-requisite: Anmathematics placement score above the score range for MAT 055 or successful completion of the prescribed developmental course(s) or consent of the instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CUL 285(3) Course ID:004222

Front of the House
Focuses on the operations in front of the house management including service techniques and dining room service, beverage service (non-alcoholic and alcoholic beverages), POS systems, and menu planning. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CUL 290(4) Course ID:004223

Front of the House-Catering
Focuses on the operations in front of the house management including service techniques and dining room service, beverage service (non-alcoholic and alcoholic beverages), POS systems, and menu planning Pre-requisite: (CUL 100 and CUL 111 and CUL 200 and CUL 211 and CUL 215 and CUL 240) or consent of the instructor.

Components: Lecture, Laboratory: 4.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

CUL 295(3) Course ID:005138

Doing Business as a Personal Chef
A general overview of the business aspects of starting and operating a personal chef service. Pre-requisite: All Technical Core Courses as outlined in the current Culinary Arts Curriculum. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

CUL 297(1 - 6) Course ID:004224

Selected Topics in Culinary Arts
Various culinary arts topics, issues, and trends will be addressed. Topics may vary from semester to semester at the discretion of the instructors; courses may be repeated with different topics to a maximum of six credits. Pre-requisite: Varies by topic; Lab: varies by topic. Pre-requisite: Consent of instructor.

Components: Laboratory, Lecture
Attributes: Technical

CUL 298(2 - 3) Course ID:004225

Culinary Arts Practicum Experience
Practicum enhances the student’s transition from class to the work of preparing unpaid work experience in a simulated or on-campus setting that utilizes the skills required to achieve the student’s occupational goal. Pre-requisite: Consent of instructor. Practicum: 2.0 - 3.0 credits (120-180 contact hours).

Components: Practicum
Attributes: Technical

CUL 299(2 - 3) Course ID:004226

Culinary Arts Cooperative Education Experience
Enhances the student’s transition from class to the workforce by providing a paid work experience in a setting that utilizes the skills required to achieve the student’s occupational goal. Pre-requisite: Consent of instructor. Practicum: 2.0 -3.0 credits (120-180 contact hours).

Components: Practicum
Attributes: Technical

CUL 1001(1) Course ID:016347

Culinary Industry Trends
Provides an introduction to several aspects of the food industry. Includes an overview of the history of the profession and current career opportunities and trends. Introduces proper terminology for various types of equipment and cooking methods. Lecture: 1.0 credit (15 contact hours)

Components: Practicum
Attributes: Technical

CUL 299(2 - 3) Course ID:016347

Culinary Industry Trends
Provides an introduction to several aspects of the food industry. Includes an overview of the history of the profession and current career opportunities and trends. Introduces proper terminology for various types of equipment and cooking methods. Lecture: 1.0 credit (15 contact hours).

Components: Practicum
Attributes: Technical
DAS Dental Assisting

DAS 125(6) Course ID:015651

Dental Assisting I

Introduction to 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 125(7) Course ID:015652

Dental Assisting II

Continues DAS 125 concepts. Introduces student to remaining dental specialties and expanded dental assisting functions. Pre-requisite: Dental Assisting: Minimum grade of "C" in DAS 125, and DAS 130. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

DAS 230(1) Course ID:006813

Seminar II

Provides the opportunity to discuss clinical experiences and prepare to sit for the Dental Assisting National Board (DANB). Provides students the opportunity to further develop professional growth plan. Pre-requisite: Minimum grade of "C" in DAS 125, and DAS 130. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Lecture
Attributes: Technical

DAS 245(2) Course ID:015653

Preventive Dentistry

Introduces dental biofilm and its role in dental disease. Emphasizes the role nutrition plays regarding disease initiation and progression and the methods and preventive agents utilized by the auxiliary to prevent oral disease. Pre-requisite: Dental Assisting: Minimum grade of "C" in DAS 125, and DAS 130, and DAS 135. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

DAS 250(5) Course ID:015654

Clinical Externship

Apply and practice principles and skills acquired in the areas of chairside assisting, operative procedures, specialty procedures, laboratory procedures, business office procedures and dental radiology. Consists of observation and practice in a dental office setting with emphasis on chairside activities. Pre-requisite: Dental Assisting: Minimum grade of "C" in DAS 125, and DAS 130, and DAS 135. Practicum: 5 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

Emphasizes creating 3D graphics using one or more state-of-the-art software packages. Pre-requisite: Computer literacy course or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

DGD 231(3) Course ID:007067

3D Texturing and Lighting II

Introduces advanced texturing and lighting techniques to enhance depth perception and realism within 3D environments. Pre-requisite: DGD 131 and DGD 132, or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical
DGD 232(3) Course ID:005476
3D Character Development
Develop realistic 3D characters with complete body structure. Pre-requisite: 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
Introduces basic techniques to rig a digital 3D character with a skeleton that can be manipulated to produce artistic or 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
Introduces 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

DHG Dental Hygiene

DHG 120(3) Course ID:000337
Pre-Clinical Dental Hygiene
Stresses basic assessment and clinical skills, related theory, and professional role and responsibilities of the dental hygienist as a member of the dental health team. Pre-requisite: Admission into the Dental Hygiene Integrated Program. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (120 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DHG 130(3) Course ID:000338
Clinical Dental Hygiene I
Focuses on preparing the student to provide patient treatment that includes preventive and therapeutic procedures to maintain oral health and assist the patient in achieving oral health goals. Pre-requisite: Minimum grade of C in DAH 101, DAH 121, DAH 124, DAH 135, and DHG 120. Lecture: 1.5 credits (22.5 contact hours). Lab: 0.5 credits (90 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 related to dental hygiene. Pre-requisite: Minimum grade of C in DHP 120 and DHP 121 and DHP 122. 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 relation 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:008341
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 diseases. Pre-requisite: Minimum grade of C in DAH 131, DHG 130, DHG 132, DHG 134, and DHG 136. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

DHG 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 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:00459
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: 2.0 credits (30 contact hours); Laboratory: 1.0 credit (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DHP 121(3) Course ID:004860
Oral Biology I
Presents oral histology and embryology, regional head and neck anatomy, and dental anatomy applicable to the practice of dental hygiene. Pre-requisite: Acceptance into the Dental Hygiene Program; Computer Literacy or equivalency; and CPR certification. BIO 137 and BIO 139 or equivalent, with a grade of C or better. Lecture: 2.0 credits (30 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 Radiology
Presents the theory and clinical practice of dental 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 apatients' 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 a 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

DHP 226(2)  Course ID:004867
Periodontics II
Provides for the continuation and expansion of the content of Periodontics for the Dental Hygienist I. Emphasizes the role of the dental hygienist in the recognition of systemic implications as related to periodontal diseases and current advancements in the management of patients with periodontal disease. Introduces current surgical therapies with discussion of supportive periodontal therapy. Pre-requisite: (DHP 130 and DHP 131 and DHP 135 and DHP 136) with a grade of "C" or better. Lecture: 2.0 credits (22.5 contact hours). Laboratory: 0.5 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

DIT 110(3)  Course ID:001274
Introduction to Diesel Engines
Covers fundamental concepts of the operation of two- and four-stroke diesel and gasoline engines. Includes basic engine components and their functions, engine performance terminology, two- and four-stroke operation, combustion principles, and engine disassembly with basic hand tools. Co-requisite: DIT 111.
Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

DIT 112(3)  Course ID:001276
Diesel Engine Repair Lab
Includes how to take a disassembled engine and evaluate the condition of each component. Includes the identification and use or function of each component of the engine. Covers cylinder block and components, cylinder heads and valve train components, and engine lubrication systems. Pre-requisite: DIT 110 or ADX 150. Co-requisite: DIT 113. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical
DLT 132(2) Course ID: 0048478
Removable Partial Dentures II
Advanced principles of a removable partial denture prosthodontics department 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: DLT 131. Lecture: 1 credit (15 contact hours); Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DLT 142(2) Course ID: 004879
Occlusion
Theories of occlusion; interarch and intraarch relationships; the temporomandibular joint and its movements; articulators, interocclusal records, and face-bow transfer; occlusal schemes; and restorative considerations occlusal therapy are discussed and/or put to practical application in this course. Pre-requisite: Admission to the Dental Laboratory Program. Lecture: 1 credit (15 contact hours); Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DLT 151(2) Course ID: 004880
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, spraying, 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).
Components: Laboratory, Lecture
Attributes: Technical

DLT 152(2) Course ID: 004881
Fixed Prosthodontics II
The basic principles of metal ceramic fixed prosthodontics are presented including the fabrication of both single and multi-unit full metal restorations. Emphasis is placed on esthetic restorations, preparing and evaluating working casts, waxing substructure patterns, spraying, investing, burnout, casting, and polishing. Additional laboratory procedures include applying opaque, dentin, and enamel ceramic powders and contouring fired porcelain. Pre-requisite: DLT 151. Lecture: 1 credit (15 contact hours); Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DLT 261(8) Course ID: 004882
Applied Laboratory Techniques
Students fabricate a more complex variety of dental prostheses in four specialty areas: complete denture prosthodontics, removable partial denture prosthodontics, dental ceramics, and fixed prosthodontics (crown and bridge). Curriculum content includes reinforcement of techniques and procedures that are taught in the 100 level DLT courses. Emphasis will be placed on management of laboratory time and project load to improve the quality and quantity of laboratory work. Pre-requisite: DLT 122, DLT 132, DLT 142, and DLT 152. Lecture: 2 credits (30 contact hours); Laboratory: 6 credits (270 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DLT 262(8) Course ID: 004883
Advanced Specialty Laboratory Techniques
Students fabricate dental prostheses at a more advanced level in at least one of the following specialty areas: complete denture prosthodontics, dental ceramics, fixed prosthodontics (crown and bridge), orthodontic appliances, or removable partial denture prosthodontics. Emphasis is placed on incorporating productivity, flow rate, and quality requirements. Laboratory experience is provided in the classroom or selected externships in local dental laboratories. Pre-requisite: DLT 261. Lecture: 2 credits (30 contact hours); Laboratory: 6 credits (270 contact hours).
Components: Laboratory, Lecture

DLT 281(2) Course ID: 004884
Orthodontic Laboratory Techniques
Fixed, removable, active and passive orthodontic appliances are studied in this course. Principles of tooth movement, classifications of malocclusion, orthodontic materials and their manipulation, orthodontic study models, and functional appliances will be discussed. Pre-requisite: DLT 122. Lecture: 1 credit (15 contact hours); Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DLT 291(2) Course ID: 004885
Dental Laboratory Management, History & Ethics
Dental laboratory management, business plans, financial planning, history of dentistry and dental technology, and those ethics and laws which are specific to dentistry will be presented. Pre-requisite: Completion of all 100 level DLT courses. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical

DMS Diagnostic Medical Sonographer

DMS 105(13) Course ID: 005941
Introduction to Cardiology
Provides an overview of anatomy and physiology and the electrocardiographic examination of the cardiovascular system. Includes theory and application of the 12-lead electrocardiogram, Holter monitor, and stress test. Covers cardiovascular pharmacology, medical terminology, medical law and ethics, and patient care. Pre-requisite: Admission to Diagnostic Medical Sonography Program. Lecture: 10.0 credits (150 contact hours). Clinical: 3.0 credits (150 contact hours).
Components: Clinical, Lecture
Attributes: Technical

DMS 109(7) Course ID: 004392
Department Consent RequiredSonography I
Provides a study of diagnostic foundations of clinical medicine pertinent to abdominal, superficial structures, musculoskeletal and non-cardiac chest sonography. Includes obtaining the clinical history, interpretation of clinical laboratory test, the pathophysiologic effects of disease, related clinical symptoms and signs, sectional anatomy, and normal/abnormal sonographic patterns. Includes a laboratory component for the practice and application of normal and abnormal sonographic patterns, basic scanning techniques and protocol. Pre-requisite: Admission to Diagnostic Medical Sonography program; Computer Literacy, NA 100 or equivalent; CPR certification. Lecture: 5.0 credits (75 contact hours), Laboratory: 2.0 credits (90 contact hours). (45:1 Ratio).
Components: Lecture
Attributes: Technical

DMS 111(7) Course ID: 006259
Abdominal Sonography
Provides a study of diagnostic foundations of clinical medicine pertinent to abdominal, superficial, musculoskeletal and non-cardiac chest sonography. Includes obtaining the clinical history, interpretation of clinical laboratory test, the pathophysiologic effects of disease, related clinical symptoms and signs, sectional anatomy, and normal/abnormal sonographic patterns. Includes a laboratory component for the practicewith the application of normal and abnormal sonographic patterns, basic scanning techniques and protocol. Pre-requisite: Admission to Diagnostic Medical Sonography program; Computer Literacy, NA 100 or equivalent; CPR certification. Lecture: 7.0 credits (105 contact hours).
Components: Lecture
Attributes: Technical

DMS 112(2) Course ID: 006795
Patient Care Concepts in Sonography
Provides an introduction to patient care in the diagnostic medical sonography department, adding to instruction received in the required nursing assistant course. Includes information about healthcare settings, professionalism, methods of communication, as well as legal and ethical considerations in patient care. Pre-requisite: Admission to DMS program, completion of CPR and minimum 75 hour nursing assistant course. Lecture: 1.0 credit hour (15 contact hours), Lab: 1.0 credit hour (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DMS 115(6) Course ID: 004395
Instructor Consent Required
Sonography II
Covers the study of the clinical applications within the sonographic specialties of obstetrics, gynecology, female breast, and neurosonography. Includes related clinical symptoms and laboratory tests, pathophysiologic effects of disease and anomalies, and normal/abnormal sonographic patterns. Includes basic scanning techniques and protocol, with an emphasis on the demonstration of clinical applications of theoretical principles and concepts. Pre-requisite: Admission to Diagnostic Medical Sonography program; Computer Literacy, NA 100 or equivalent; CPR certification. Lecture: 4.0 credits (60 contact hours), Laboratory: 2.0 credits (90 contact hours). (45:1 Ratio).
Components: Laboratory, Lecture
Attributes: Technical

DMS 116(6) Course ID: 006260
DMSYN Sonography
Covers the study of the clinical applications within the sonographic specialties of obstetrics and gynecology. Includes related clinical symptoms and laboratory test, pathophysiologic effects of disease and anomalies, and normal/abnormal sonographic patterns. Includes basic scanning techniques and protocol. Designed for students to utilize the laboratory facilities to demonstrate clinical applications of theoretical principles and concepts. Pre-requisite: Admission to Diagnostic Medical Sonography Program; Computer Literacy, NA 100 or equivalent. Lecture/Lab: 6.0 credits (150 contact hours).
Components: Lecture
Attributes: Technical

DMS 117(7) Course ID: 006261
Vascular Sonography I
Provides a study of diagnostic foundations of clinical medicine pertinent to vascular sonography. Includes the clinical history, interpretation of clinical laboratory test, the pathophysiologic effects of diseases, related clinical symptoms and signs, sectional anatomy, and normal/abnormal sonographic patterns. Includes related clinical symptoms and laboratory tests, pathophysiologic effects of disease and anomalies, and normal/abnormal sonographic patterns. Includes a laboratory component for the practice and application of normal and abnormal sonographic patterns, basic scanning techniques and protocol. Pre-requisite: Admission to Diagnostic Medical Sonography program; Computer Literacy, NA 100 or equivalent; CPR certification. Lecture: 7.0 credits (105 contact hours).
Components: Lecture
Attributes: Technical

DMS 118(6) Course ID: 006262
Vascular Sonography II
Covers the study of the clinical applications of peripheral venous, peripheral arterial and abdominal vessels within the sonographic vascular concentration. Includes related clinical symptoms and laboratory tests, pathophysiologic effects of disease and anomalies, and normal/abnormal sonographic patterns. Includes basic scanning techniques and protocol. Designed for the student to utilize the laboratory facilities to demonstrate clinical applications of theoretical principles and concepts. Pre-requisite: Admission to Diagnostic Medical Sonography program; Computer Literacy, NA 100 or equivalent; CPR certification. Lecture/Lab: 6.0 credits (150 contact hours).
Components: Lecture
Attributes: Technical
DMS 119(6) Course ID:004393
Department Consent Required
Ultrasound Physics and Instrumentation
Consists of lectures and related laboratory exercises covering the areas of ultrasound propagation principles, transducer parameters, interactive properties of ultrasound with human tissue, possible biologic effects, basic equipment types, instrumentation and quality control procedures, hemodynamics and basic Doppler. Pre-requisite: Consent of Program Coordinator. Lecture: 6.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

DMS 121(6) Course ID:006263
Department Consent Required
Sonography Physics and Instrumentation
Consists of lectures and related laboratory exercises covering the areas of ultrasound propagation principles, transducer parameters, interactive properties of ultrasound with human tissue, possible biologic effects, basic equipment types, instrumentation and quality control procedures, hemodynamics and basic Doppler. Pre-requisite: PHY 151 OR PHY 152 OR PHY 171, or higher approved Physics course approved by DMS faculty. Lecture: 6.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

DMS 126(3 - 4) Course ID:004394
Clinical Education I
Includes observation of all clinical duties performed in the ultrasound department. Covers basic instruction and scanning experience in abdomen, superficial structures, non-cardiac chest, embryo/fetus, gravid and non-gravid pelvic structures with basic competencies to be performed. Pre-requisite: Minimum grade of "C" in (DMS 109 and DMS 115) or (DMS 111 and DMS 116). Clinical: 3.0 - 4.0 credits (180 - 240 contact hours).

Components: Clinical
Attributes: Technical

DMS 138(4) Course ID:008264
Vascular Clinical Education I
Includes observation and performance of all clinical duties performed in the vascular lab with basic instruction and scanning experience under the supervision of a credentialed Vascular Sonographer. Pre-requisite: DMS 117 with minimum "C" grade. Clinical: 4.0 credits (240 contact hours).

Components: Clinical
Attributes: Technical

DMS 145(12) Course ID:005942
Cardiac Sonography I
Covers the identification of structures and the correct technique to obtain images of the heart. Includes the fundamentals of ultrasound physics and instrumentation required to perform echocardiograms. Pre-requisite: Admission to Diagnostic Medical Sonography Program; Computer Literacy; Minimum grade of "C" in BIO 135 or (BIO 137 and BIO 139) and (PHY 151 or PHY 152 or PHY 171) and MAT 150. Lecture/Lab: 12.0 credits (225 contact hours).

Components: Lecture
Attributes: Technical

DMS 199(1) Course ID: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 Review
Provides a review of abdominal sonography to prepare the student for the related registry. Includes obtaining clinical history, interpretation of clinical laboratory tests, pathologic basis for disease, related clinical signs and symptoms, sectional anatomy, and normal/abnormal sonographic patterns. Pre-requisite: DMS 109 or DMS 111 with minimum "C" grade or Consent of Program Coordinator. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
Attributes: Technical

DMS 202(1) Course ID:005938
Online OB/GYN Review
Provides a review of related clinical signs and symptoms, laboratory tests, and normal/abnormal sonographic patterns in preparation for the related OB/GYN registry. Pre-requisite: DMS 115 or DMS 116 with minimum "C" grade or Consent of Program Coordinator. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
Attributes: Technical

DMS 204(2) Course ID:006266
Department Consent Required
Online Vascular Review
Provides a review of vascular sonography to prepare the student for the related registry. Includes obtaining a clinical history, related laboratory tests, and normal/abnormal sonographic patterns in preparation for the related Ob/Gyn registry. 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 Hemodynamic Monitoring, and Perioperative Perioperative applications. Pre-requisite: DMS 145 with a minimum "C" grade or Consent of Program Coordinator. Lecture/Lab: 6.0 credits (270 contact hours).

Components: Lecture
Attributes: Technical

DMS 206(3) Course ID:006267
Online Vascular Sonography III
Covers the various test, miscellaneous conditions encountered in vascular sonography. Emphasizes the importance of quality measurements and safety practices. Pre-requisite: Admission to Diagnostic Medical Sonography Program; Computer Literacy; 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
Attributes: Technical

DMS 217(3) Course ID:006702
Basic Cardiac Ultrasound Technology
Provides review and practical application of ultrasound and Doppler physics, cardiac anatomy, physiology, and pathophysiology. Pre-requisite: Consent of 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 ultrasound departments. Covers abdomen, superficial structures, non-cardiac chest, embryo/fetus, and the gravid and non-gravid pelvic structures with performance of basic and advanced competencies. 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 238(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 role 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 role 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 more active role in assisting the practicing sonographer and performing sonographic duties under direct supervision with the role of progress dependent upon the student's ability to comprehend and perform assignments. Pre-requisite: DMS 230 with minimum "C" grade. Clinical: 5.0 - 8.0 credits (300 - 480 contact hours).

Components: Clinical
Attributes: Technical

DMS 245(6) Course ID:005945
Cardiac Sonography IV
Provides a comprehensive overview of program content with clinical applications. Pre-requisite: DMS 145 with minimum "C" grade. Pre-requisite Or Co-requisite: DMS 205 with minimum "C" grade. Lecture/Lab: 6.0 credits (270 contact hours).

Components: Lecture
Attributes: Technical

DMS 255(6) Course ID:005939
Vascular Technology
Provides content related to the more advanced 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 a graduate of an accredited sonography program or Consent of Program Coordinator. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DPT 3D Printing

DPT 100(3) Course ID:015703
Introduction to 3D Printing Technology
Provides an introduction to the world of Three Dimensional printing (3DP) and its applications in conjunction with computer technology. Introduces topics including computer hardware and software, 3D printing technology, file management, the Internet, e-mail, the social web, sustainability, security, and computer and intellectual property ethics. Presents basic use of application, programming, systems, and utility software. Lecture/Lab: 3.0 credits (60 contact hours)
Components: Lecture
Attributes: Digital Literacy, Technical

DPT 102(2) Course ID:016604
3D Printing Technology Fundamentals
Provides an introduction to the world of three-dimensional (3D) printing or additive manufacturing (AM) and its applications. Introduces topics including 3D printing technologies, basic use of 3D applications, programming, systems, 3D-scanning, and utility software. Pre-requisite or Co-requisite: CIT 105, demonstration of digital literacy competency by exam or certificate, or other approved course with digital literacy status. Lecture/Lab: 2.0 credits (45 contact hours)
Components: Lecture
Attributes: Technical

DPT 150(3) Course ID:016605
Introduction to Engineering Mechanics for 3D Printing
Provides an introduction to simplified engineering mechanical principles as they apply to 3D printing, additive manufacturing, designs and products. Requires students to apply concepts related to simple force and stress analysis, material property selection, and deformation to their designs for the purpose of improving functional performance and overall printing success. Explores finishing and post-processing techniques to enhance the final appearance and marketability of their printed work. Pre-requisite: DPT 100 or DPT 102 Lecture/Lab: 3.0 credits (60 contact hours)
Components: Lecture
Attributes: Technical

DPT 280(1) Course ID:016606
Special Projects for 3D Printing, Level I
Allows the student to gain intermediate level experience in their prospective fields through projects and tasks assigned by the instructor and based on applications the student may one day experience as professional. Focuses on various assignments and curriculum as determined by the program instructor. Pre-requisite: DPT 100 or DPT 102 Lecture/Lab: 1.0 credits (30 contact hours)
Components: Lecture
Attributes: Technical

ECEL Electrical & Computer Engineer

ECEL 252(3) Course ID:005759
Introduction to Electrical Engineering
Reviews electrical quantities, definitions and laws, as applied to DC and AC circuits. Introduces transient and steady-state solutions of linear networks, impedance concepts, the Phasor Transform for AC Analysis, complex AC Power, diode applications, and operational Amplifiers. Discusses electrical safety. Pre-requisite: PHY 232, MA 214. Lecture: 3 credits (45 contact hours).

ECO Economics

ECO 101(3) Course ID:000445
Contemporary Economic Issues
Covers contemporary economic issues such as inflation, poverty and affluence, globalization, and environmental pollution. Lecture: 3 credits (45 contact hours)
Components: Lecture
Attributes: Social Behavior Science

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, Cultural Studies, Business - Social Science, Business Analysis and Operations Management, Business Communication

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 educational agencies. Pre-requisite: EDP 202 and EDP 201. Lecture: 3.0 credits (45 contact hours)
Components: Lecture
Attributes: Technical

EDP Educational and Counseling Psychology

EDP 202(3) Course ID:000452
Human Development and Learning
Presents theories and concepts of human development, learning, and motivation and applies them to interpreting and explaining human behavior and interaction in relation to teaching across the developmental span from early childhood to adulthood. Requires field experience of a minimum of 15 clock hours in instructor-approved educational agencies. Pre-requisite: PSY 100 or PSY 110. Lecture: 3.0 credits (45 contact hours)
Components: Lecture
Attributes: Other

Course Descriptions

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**EDP 203(3)** Course ID:000453
Teaching Exceptional Learners in Regular Classrooms
Introduces the characteristics and instructional needs of exceptional learners with an overview of principles, procedures, methods, and materials for adapting educational programs to accommodate the integration of exceptional children in regular classrooms, when appropriate. Requires field experience of a minimum of 12 clock hours in instructor-approved educational agencies. Pre-requisite: EDP 202 with an earned grade of C or higher. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other

**EDP 280(3)** Course ID:016282
Motivation and Classroom Management
Provides students with a theoretical background of motivation and behavior. Reviews current classroom practices to motivate students and ensure positive classroom behavior. Applies strategies to classroom situations. Teaches basic research methods that apply strategies to classroom situations. Pre-requisite: EDP 202. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other

**EDU Education**

**EDU 110(3)** Course ID:004451
Orientation to Education
Introduces the roles and responsibilities of both the paraeducator and the classroom teacher. Covers legal and ethical issues that might be encountered in the classroom, instructional support strategies that might be implemented by paraeducators, universal health and safety procedures, and the importance of communication and teamwork in the instructional environment. Introduces the design of learning environments that encourage active participation in individual and group settings. Requires 10 hours of field work. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

**EDU 120(3)** Course ID:004450
Child and Adolescent Development
Acquaints the student with the cognitive, social, moral, language, emotional, and physical development of children and adolescents. Addresses the application of these theories in the modern classroom. Requires 10 hours of field work. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

**EDU 130(3)** Course ID:004449
Introduction to Special Education
Introduces methods on the creation of a learning environment, basic classroom management theories, key principles and practices of special education, and the similarities and differences of individuals with and without exceptional learning needs. Requires 10 hours of field work. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

**EDU 140(3)** Course ID:004448
Introduction to Behavior Management
Introduces the student to strategies of classroom and behavior management that create a positive learning environment encouraging student self-advocacy, increased independence, and improved communication skills. Introduces behavior management strategies that encourage respect and value individual differences among children, youth, and adults and how consequences should be used to motivate positive student behavior. Includes focus on chronic behavior problems. Requires 10 hours of field work. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

**EDU 150(3)** Course ID:004447
Practical Experiences for the Paraeducator
Provides the capstone experience for the paraeducator certificate. Pre-requisite: (EDU 110 and EDU 120 and EDU130 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-Dp, 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 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 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 elementary and secondary school literature. Emphasizes selection, evaluation, storytelling, and the use of media to meet the literary needs and interests of children from preschool through middle school. Requires 15 hours of field observation. Pre-requisite: ENG 102. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

**EE Electrical Engineering**

**EE 211(4)** Course ID:000454
Circuits I
Fundamental laws, principles and analysis techniques for DC and AC linear circuits whose elements consist of passive and active components used in modern engineering practice including the determination of steady state and transient responses. Pre-requisite: MA 114. Pre-requisite or concurrent: PHY 232, PHY 242.
Components: Lecture
Attributes: Technical

**EES Electronics**

**EES 101(2)** Course ID:001332
Basic Electronics
Provides the foundation for further study in technologies related to electricity or electronics. Addresses the following areas: basic electrical components and their properties, quantities, and units of measurement; calculation of voltage, current, resistance, energy, and power using Ohms Law; construction and analysis of series, parallel, and series/parallel circuits; principles of magnetism and electromagnetism; alternating current and voltage; reactive components; construction and analysis of AC, RL, and RLC circuits; sinusoidal and other waveforms. Lecture/Lab: 2.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

**EET Electrical Engineering**

**EET 119(5)** Course ID:015852
Basic Electricity
Introduces basic electricity concepts applicable to AC and DC circuits pertinent to the electrical technology industry. Provides an in-depth study of Ohm’s Law, series, parallel, and series-parallel circuit characteristics. Focuses on providing students with an overview of common electrical safety practices, AC generation, AC and DC Principles, magnetic principles, transformers, capacitors, inductors, and basic electrical testing equipment along with a focus on the construction, calculation, measurement, and troubleshooting of various AC and DC circuits by way of laboratory exercises and classroom lecture. Pre-requisite: MAT 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 is emphasized, with safety integrated as a core component of the study. Pre-requisite (EET 110 or EET 119) with a minimum grade of “C” or consent of Electrical Engineering 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 (EET 110 or EET 119) with a minimum grade of
EET 256(2) Course ID:001419
Rotating Machinery and Transformers Lab
Focuses on the principles of operation and application of single-phase and three-phase AC transformers, motors and alternators, and DC motors and generators. A study of and compliance with the National Electrical Code standards. Pre-requisite: (EET 110 or EET 119) with a minimum grade of "C" or consent of Electrical Technology program advisor(s). Co-requisite: EET 260. 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 National Electrical 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 267. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Technical

EET 268(3) Course ID:001423
Instructor Consent Required
Rotating Machinery Electrical Motor Controls I
This course focuses on the construction, operation and maintenance of DC motors and generators and AC motors and alternators. This course addresses the diversity of control devices and applications used in industry today. Safety and electrical lockouts are also included. Pre-requisite: (EET 110 or EET 119) with a minimum grade of "C" or consent of Electrical Technology program advisor(s). Co-requisite: EET 269. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

EET 269(4) Course ID:001424
Rotating Machinery and Motor Controls I Lab
Provides practical experience in the use of control devices and their applications in industry today. Provides experience in the construction, operation and maintenance of AC motors and alternators, and DC motors and generators. Safety and electrical lockouts are included. Pre-requisite: (EET 110 or EET 119) with a minimum grade of "C" or consent of Electrical Technology program advisor(s). Co-requisite: EET 268. Laboratory: 4.0 credits (120 contact hours).

Components: Laboratory Attributes: Technical

EET 270(2) Course ID:001425
Electrical Motor Controls I
This course addresses the diversity of control devices and applications used in industry today. Safety and electrical lockouts are also included. Pre-requisite: (EET 110 or EET 119) with a minimum grade of "C" or consent of Electrical Technology program advisor(s). Co-requisite: EET 271. Lecture: 2.0 credits (30 contact hours).

Components: Lecture Attributes: Technical

EET 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 270. Lab: 2.0 credit (60 contact hours).

Components: Laboratory Attributes: Technical

EET 272(2) Course ID:001427
Electrical Motor Controls II
This course provides advanced study of motor controls in industry. The course addresses solid state relays, solid state drives, and programmable controllers. Pre-requisite: EET 270. Co-requisite: EET 273. Co-requisite: EET 275. Laboratory: 2 credits (60 contact hours).

Components: Lecture Attributes: Technical

EET 273(2) Course ID:001428
Electrical Motor Controls II Lab
This course provides hands-on experience in advanced studies in electrical controls used in industry including solid state relays and programmable controllers. Pre-requisite: EET 270. Co-requisite: EET 272. Laboratory: 2 credits (60 contact hours).

Components: Laboratory Attributes: Technical

EET 274(3) Course ID:001429
Electrical Motor Controls
This course addresses the diversity of control devices and applications used in industry today. Safety and electrical lockouts are also included. This course provides study of motor controls in industry. The course addresses solid state relays, solid state drives, and programmable controllers. Pre-requisite: (EET 110 or EET 119) with a minimum grade of "C" or consent of Electrical Technology program advisor(s). Co-requisite: EET 275. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

EET 275(4) Course ID:001430
Electrical Motor Controls Lab
Provides practical experience in the use of control devices and their applications in industry today. Safety and electrical lockouts are also included. Provides hands-on experience in advanced studies in electrical controls used in industry including solid state relays and programmable controllers. Pre-requisite: (EET 110 or EET 119) with a minimum grade of "C" or consent of Electrical Technology program advisor(s). Co-requisite: EET 274. Lab: 4.0 credits (120 contact hours).

Components: Laboratory Attributes: Technical

EET 276(2) Course ID:001431
Programmable Logic Controllers
Underlying principles and applications of programmable logic controllers including installation, logic fundamentals, and numbering systems; basic programming of inputs.
EET 277(2) Course ID:001432
Programmable Logic Controllers Lab
Provides practical applications of programmable logic controllers including installation, logic fundamentals, and number systems, basic programming of inputs, outputs, timers, and counters, basic data manipulation, and safety circuits of industrial. Pre-requisite: [EET 110 or EET 119] with minimum grade of "C" and [EET 270 and EET 272] or EET 268 or EET 274 with a minimum grade of "C" or consent of Electrical Technology program advisor(s). Co-requisite: EET 277. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

EET 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

EFT Economics

EET 100(3) Course ID:001440
Personal Financial Management
Successful completion of this course will result in an understanding of the role of the U.S. in a global economy and how an individual can function successfully in the U.S. economic system. Students will explore various aspects involved in being responsible consumers, the importance of personal financial planning, the relationship between employment opportunities and financial security, and other aspects of becoming successful and productive workers, consumers, and citizens.
Components: Lecture
Attributes: Other

EGR Engineering

EGR 101(1) Course ID:009198
Engineering Exploration I
Engineering Exploration I introduces students to the engineering and computer science professions, College of Engineering degree programs, and opportunities for career path exploration. Topics and assignments include study skills, team development, ethics, problem solving and basic engineering tools for modeling, analysis and visualization. Open to students enrolled in the College of Engineering. Students who received credit for EGR112 are not eligible for EGR 101. Pre-requisites: Enrolled in the College of Engineering or MA ACT of at least 23 or equivalent. Students who received credit for EGR 112 are not eligible for EGR 101. Lecture: 1.0 credit (30 contact hours).
Components: Lecture
Attributes: University Course (University of Kentucky)

EGR 102(2) Course ID:016991
Fundamentals of Engineering Computing
Introduces students to the practice and principles of computer programming and computational problem solving. Students will engage in hands-on project-based problem solving using computer software and hardware, with a particular emphasis on problems and techniques commonly appearing in various domains of engineering. Open to students enrolled in the College of Engineering. Pre-requisites: Enrolled in the College of Engineering or MA ACT of at least 23 or equivalent. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Lecture
Attributes: University Course (University of Kentucky)

EGY Energy Technologies

EGY 120(4) Course ID:006821
Outside Plant Communications
Introduces students to the technologies used in energy management and safety. Pre-requisite: ELT 110 and EET 154 or EET 268 or EET 250 or (electrical experience and consent of instructor). Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).

EGY 170(4) Course ID:006822
Energy Utility Technologies
Introduces students to the technologies used in energy utility companies, including line maintenance, underground operations, substations and switchyards and transmission 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 electrical controls and equipment. Prepares students to assist in the design of efficient electrical energy systems under the supervision of a Certified Energy Manager or Licensed Professional Engineer. Pre-requisite: ELT 110 and EET 154 and EET 155 and EET 252 and EET 253 and EET 250 or (electrical experience and consent of instructor). Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

EGY 230(4) Course ID:006824
Solar / Photovoltaic Technologies
Covers the design and installation of grid connected, stand-alone, and hybrid photovoltaic (PV) systems, and involves hands-on work with PV systems and equipment. Intended for electrical technology students, apprentices, contractors, electricians, and other practitioners, with an overall goal of developing "system knowledgeable" professionals to help ensure the safety and quality of PV system installations. Pre-requisite: ELT 110 and EET 154 and EET 155 and EET 252 and EET 253 and EET 250 or (electrical experience and consent of instructor). Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

EGY 240(4) Course ID:006825
Energy Efficiency and Analysis
Discusses the basic principles of how energy flows into and out of a residential building, using the "House as a System" approach. Develops the skills needed to perform a home energy audit. Gives students hands-on experience with a blower door, thermal imaging camera as well as other auditing tools. Pre-requisite: Consent of instructor. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

EGY 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 resource for the home, farm and business. Pre-requisite: ELT 110 or consent of instructor. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
ELT 102(3) Course ID:000526
Blueprint Reading
A comprehensive study of current drafting standards and blueprint reading techniques are included. Topic include standard lines and symbols, sketching techniques, orthographic projection, auxiliary views, detail and assembly drawings, dimensions, tolerances, sectional views, title block information, machining specifications, and specialized forms of engineering drawings. Lecture: 2.0 (30 contact hours).
Components: Lecture Course Equivalents: BRX 120
Attributes: Technical

ELT 103(3) Course ID:005443
Introduction to Engineering
Provides an introduction to the engineering profession, engineering disciplines, and technology. Emphasizes 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 PlacementScores for College Level Quantitative Reasoning or Consent of Instructor. Lecture/Lab: 3.0 credits (60 contacthours).
Components: Lecture Attributes: Technical

ELT 105(3) Course ID:005591
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 software 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 contacthours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

ELT 106(2) Course ID:000529
Mechanical Engineering Graphics
Includes basic computer 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. Lab: 2.0 credits (30 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: Technical

ELT 110(5) Course ID:004631
Circuits I
Introduces application of basic DC and AC circuits, including circuit analysis techniques with discussion of introductory magnetism and transformer principles. Emphasizes design, construction, and troubleshooting of simple DC and AC circuits in laboratory exercises. Pre-requisite: (MAT 065 or equivalent placement level) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture Attributes: Course Also Offered in Modules, Technical

ELT 114(5) Course ID:004634
Circuits II
Addresses theory and application of complex alternating current and direct current circuits. Emphasizes impedance, reactance, power and electrical energy, electrical measurement instruments, and circuit analysis. Pre-requisite: (ELT 110 with a grade of C or greater) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture Attributes: Course Also Offered in Modules, Technical

ELT 118(3) Course ID:000566
Computer Numerical Control
Introduces computer numerical control technology, covering programming and metal removal techniques. Includes topics of computer machine components, tooling, 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, sequential circuits, number systems and codes, and design and troubleshooting of digital microcircuits. 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: 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, packaging/seals, bearings, mechanical fasteners, pipe fittings, pumps, and valves. Co-requisite: ELT 124. Lecture: 3.0 credit (45 contact hours). Exams: 1/2 credit (60 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, packaging/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(2) 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. No stress and strain in concrete. Described for 30 contact hours. Pre-requisite: (MAT 150 and MAT 155 or MAT 110) or Consent of Instructor. Lecture: 2.0 credits (30 contacthours). Lab: 2.0 credits (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

ELT 210(4) Course ID:004639
Devices I
Provides basic theory and application of semiconductor devices. Emphasizes design, construction and troubleshooting of diode and transistor circuits, amplifiers and power supplies. Pre-requisite: (ELT 110 with a grade of C or greater) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: 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, integratedcircuits, 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 Attributes: Technical
ELT 244(4) Course ID:000644
 Instructor Consent Required
Electrical Machinery and Controls
 Covers the study of theory and utilization of electrical motors and generators, including AC and DC motors and drives. Includes theory and utilization of limit switches, solenoids, relays, contactors, and solid state devices in control circuits. Provides application of digital and analog control techniques, ladder logic, and programming techniques to industrial and manufacturing processes.
 Pre-requisite: Consent of instructor. Lecture: 3.0 credits (45 contact hours) Lab: 1.0 credit (30 contact hours).
 Components: Laboratory, Lecture
 Attributes: Technical

ELT 250(4) Course ID:000657
Programmable Logic Controllers
 Covers the study of Programmable Logic Controllers with an emphasis on the function and use of PLCs in an industrial environment. Pre-requisite: ELT 244 or Consent of instructor. Lecture: 3.0 credits (45 contact hours) Lab: 1.0 credit (30 contact hours).
 Components: Laboratory, Lecture
 Attributes: Technical

ELT 260(5) 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 robotics programming. Provides the theory and operation of flexible and computer-integrated manufacturing and control systems. Provides the opportunity to develop, set up work cells, and integrate the work cells into a total computer-integrated manufacturing system at a beginning level. Pre-requisite: Consent of Instructor. Lecture: 3.0 credits (45 contact hours) Lab: 2.0 credits (60 contact hours).
 Components: Laboratory, Lecture
 Attributes: Course Also Offered in Modules, Technical

ELT 261(3) Course ID:000679
Instrumentation and Measurements
 Provides a study of instruments used by the mechanical engineering technician and training in the techniques of their use. Lecture: 3.0 credits (45 contact hours).
 Components: Lecture
 Attributes: Technical

ELT 264(4) Course ID:000691
Mechanical Design
 Covers study techniques associated with the design of machine elements, including structural members subjected to combined stresses resulting from shear or torsion coupled with axial and bending loadings. Includes material test results, failures theories, failure prevention, and stability of 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 283(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 288(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 - 4.0 credit hours (15 - 60 contact hours) Laboratory: 0.3 - 3.0 credit hours (0-45 contact hours).
 Components: Laboratory, Lecture
 Attributes: Technical

ELT 295(1 - 2) Course ID:000746
Instructor Consent Required
 Independent Problems
 Provides an objective for independent study for engineering and electronics technology students using a problem or special project approved by the instructor. This course may be repeated twice or to a maximum of four credit hours. Pre-requisite: Consent of instructor. Lecture: 1.0 - 2.0 credits (15 - 30 contact hours) Laboratory: 1.0 - 2.0 (30 - 60 contact hours).
 Components: Laboratory, Lecture
 Attributes: Technical

ELT 1101(1) Course ID:005638
Basic Electricity
 Introduces basic DC circuits, specifically safety, basic test equipment, electrical resistance and Ohm's law. Pre-requisite: (MAT 065 or equivalent placement level) or Consent of Instructor. Lecture: 0.6 credits (9 contact hours) Lab: 0.4 credits (12 contact hours).
 Components: Laboratory, Lecture
 Attributes: Technical

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
 Attributes: Technical

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
 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
 Attributes: Technical

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 1110 or 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
 Attributes: Technical

ELT 1201(1) Instructor Consent Required
Digital Basics
 Introduces basic digital circuits, specifically number systems and input output functions of gates and circuits. Pre-requisite: Consent of Instructor. Lecture: 0.66 credits (10 contact hours) Lab: 0.34 credits (10 contact hours).
 Components: Laboratory, Lecture

ELT 1202(1) Course ID:005649
Logic Circuit Design
Introduces design methods for basic digital circuits. Pre-requisite: (ELT 1201 with a grade of C or better) or Consent of Instructor. Lecture: 0.67 credits (10 contact hours) Lab: 0.33 credits (10 contact hours).
 Components: Laboratory, Lecture

ELT 1203(1) Course ID:005650
Logic Circuit Components and Troubleshooting
Covers construction, troubleshooting and testing of logic circuits. Pre-requisite: (ELT 1201 with a grade of C or better) or Consent of Instructor. Lecture: 0.67 credits (10 contact hours) Lab: 0.33 credits (10 contact hours).
 Components: Laboratory, Lecture

EM Engineering Mechanics

EM 221(3) Course ID:000462
Statics
Study of forces on bodies at rest. Vector algebra; study of force systems; equivalent force systems; distributed forces; internal forces; principles of equilibrium; application to trusses, frames and beams; and friction. Pre-requisite or concurrent: MA 213.
 Components: Lecture
 Attributes: Other

EMS Paramedic/Allied Health

EMS 105(6) Course ID:007303
Emergency Medical Technician - EMT
Provides the first level of training in the career structure of Emergency Medical Services. Integrate didactic course material and the lab component necessary for the delivery of entry level emergency medical care to individuals who are experiencing a disruption in normal body functions due to illness and/or injury and require intervention to prevent morbidity and mortality. Prepares the student to sit for the National RegistryEMT examination that is required for Kentucky certification as an EMT. Focuses on basic anatomy and physiology, scene and patient assessment, airway and ventilation, cardiovascular and body systems support, motion limiting devices, wound and fracture management, administration of basic patient medications, extrication, transportation, and patient monitoring as well as medico-legal aspects and ambulance operations. Includes a minimum twenty-four (24) hour clinical observation in the emergency department and/or a state licensed ambulance service. Pre-requisite or Co-requisite: CPR Lecture Lab: 6.0 credits (150 contact hours).
 Components: Lecture
 Attributes: Technical

EMS 150(5) Course ID:016094
Electrocardiogram Technology
 Designed for students wanting to work in doctor’s offices, hospitals, cardiac clinics, or anywhere where electrocardiograms need to be performed. Integrates comprehensive knowledge of the anatomy of the heartincluding 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 ACTS 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-
includes fundamental skill sets and the addition of components: lecture requisites: EMS 221. 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 220. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical EMS 211(2) Course ID:007306 Fundamentals Lab Encourages both an individual and group approach to simulated patient care in the laboratory setting. Includes fundamental skill sets such as patient assessment, airway and ventilation, and IV and fluid therapy. Co-requisite: EMS 200. Lab: 2.0 credits (30 contact hours).

Components: Laboratory Attributes: Technical EMS 214(6) Course ID:015876 Paramedic Theory for Registered Nurses (RNs) Provides the Registered Nurse with specialized knowledge and skills necessary to assess and manage ill and/or injured patients in the pre-hospital setting. Areas of specialized instruction include: pre-hospital environments, preparatory skills, airway management, patient assessment, trauma and medical patient management, obstetrical/gynecological conditions, pediatric and neonatal care, psychiatric and behavioral emergencies, and special considerations. Pre-requisite: Must be a registered nurse and EMT. Lecture/Lab: 6.0 credits (120 contact hours).

Components: Lecture Attributes: Technical EMS 215(1) Course ID:007307 Clinical Experience I Applies didactic knowledge, psychomotor skills, and laboratory instruction with the realities of patient care in the hospital and field setting. Includes supervision by a registered nurse, nurse practitioner, physician, or paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program focusing on the ambulance and field setting and the emergency department. Pre-requisite: EMS 211. Clinical: 1.0 credit (45 contact hours).

Components: Clinical Attributes: Technical EMS 220(3) Course ID:007308 Cardiovascular Emergencies Provides a detailed study of cardiovascular emergencies and the assessment and management of patients requiring critical intervention. Includes anatomy and physiology, medical terminology, pathophysiology related to cardiac crisis, arrhythmia recognition and 12-lead ECG for field diagnosis, as well as pharmacological and electrical interventions. Pre-requisite: EMS 210 and EMS 211. Co-requisite: EMS 221. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical EMS 221(1) Course ID:007309 Cardiac and Trauma Lab Designed to encourage both an individual and group approach to simulated patient care in the laboratory setting. Includes fundamental skill sets and the addition of cardiovascular and trauma emergency patient care and management. Co-requisite: EMS 220 and EMS 230. Lab: 1.0 credit (45 contact hours).

Components: Laboratory Attributes: Technical EMS 225(1) Course ID:007310 Clinical Experience II Provides the opportunity for application of didactic knowledge, psychomotor skills, and laboratory instruction with the realities of patient care in the hospital setting. Supervised by a registered nurse, nurse practitioner, physician, or paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program with a focus on the emergency department, operating room, and respiratory care. Pre-requisite: EMS 215. Clinical: 1.0 credit (60 contact hours).

Components: Clinical Attributes: Technical EMS 230(4) Course ID:007311 Traumatic Emergencies Presents the advanced concepts of out-of-hospital trauma care and critical thinking activities leading to formulation of a field impression and implementation of an appropriate treatment plan and scene management. Includes the 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 the emergency department, obstetric unit, mental health facility, and pediatric units. Pre-requisite: EMS 225. Clinical: 2.0 credits (120 contact hours).

Components: Clinical Attributes: Technical EMS 240(3) Course ID:007314 Medical Emergencies I Provides an understanding of the anatomic structures, physiology, and pathophysiology encountered during assessment and the provision of care for medical emergencies involving the respiratory system, nervous system, abdominal and gastrointestinal tracts, genitourinary and renal systems, skin and the appendages, and the ears, eyes, nose, and throat. Co-requisite: EMS 231. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical EMS 250(3) Course ID:007315 Medical Emergencies II Provides an understanding of the anatomic structures, physiology, and pathophysiology encountered during assessment and the provision of care for medical emergencies encompassing immunology, infectious diseases including HIV/AIDS, the endocrine system, psychiatric conditions, toxicology, and hematology. Pre-requisite: EMS 240. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical EMS 280(3) Course ID:007316 Special Populations Provides the opportunity to develop special knowledge and skills necessary to assess and manage ill and injured patients across the human life span. Focuses on the acquisition of clinical knowledge and skills in diverse populations that include obstetrics, neonatology, pediatrics, geriatrics, and special challengetopics. Pre-requisite: EMS 250. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical EMS 270(1) Course ID:007317 EMS Operations Provides knowledge necessary to safely manage multi-casualty incidents and rescue situations, utilize air medical resources, identify hazardous materials, perform vehicle extrication, and minimize the associated risks related to terrorism and disaster. Lecture: 1.0 credits (15 contact hours).

Components: Lecture Attributes: Technical EMS 275(1) Course ID:007318 Seminar in Advanced Life Support (ALS) Presents a comprehensive course encompassing advanced cardiac life support and pediatric advanced life support, or trauma life support, or other seminar course in relative subject matter such as medical emergencies or geriatric emergencies, to enhance the knowledge and skills acquired in the paramedic program. Addresses immediate life threatening conditions and critical interventions in a case study-scenario format where principles of assessment and intervention are applied in a team setting. Pre-requisite: EMS 225. Lab: 1.0 credit (45 contact hours).

Components: Laboratory Attributes: Technical EMS 285(5 – 6) Course ID:007319 Field Internship & Summation Provides the opportunity to develop special knowledge of didactic knowledge, psychomotor skills, and clinical instruction with the realities of being the team leader delivering advanced patient care in the field setting. Supervised by a paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program. Included is the summative phase of the Field Internship. Pre-requisite or Co-requisite: EMS 275. Lab: 1.0 credit (45 contact hours). Practicum: 4.0 - 5.0 credits (360 - 450 contact hours).

Components: Laboratory, Practicum Attributes: Technical EMS 2851(3) Course ID:016630 Field Internship I Provides the opportunity for application of didactic knowledge, psychomotor skills, and clinical instruction with the realities of being the team leader delivering advanced patient care in the field setting. Supervised by a paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program. Included is the summative phase of the Field Internship. Pre-requisite OR Co-requisite: EMS 275. Practicum: 3.0 credits (270 contact hours).

Components: Practicum EMS 2852(2 - 3) Course ID:016631 Field Internship II Provides the opportunity for continued application of didactic knowledge, psychomotor skills, and clinical instruction with the realities of being the team leader delivering advanced patient care in the field setting. Supervised by a paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program. Included is the summative phase of the Field Internship. Pre-requisite OR Co-requisite: EMS 2851. Laboratory: 1.0 credit (45 contact hours). Practicum: 2.0 credits (180 contact hours).

Components: Laboratory, Practicum
ENC English Composition

ENC 90(3) Course ID: 000464

Foundations of College Writing I
Introduces students to writing as a process with an emphasis on paragraph-length assignments and writing 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 91(3) Course ID: 000465

Foundations of College Writing II
Applies writing as a process with instruction in intermediate writing skills and technology. Stressess organization, idea development through critical thinking, and editorial improvement through multi-paragraph assignments. 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 92(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. Stressess 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 93(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 94(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. Lecture: 0.25 credits (3.75 contact hours).
Components: Lecture
Attributes: Remedial - English

ENC 95(3.75) 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

ENG 90(3) Course ID: 000467

Intermediate Grammar
Introduces intermediate writing skills and editorial improvement, stressing the conventions of standard written English. Pre-requisite: As determined by KCTCS Placement Policy or successful completion of ENC 090. Lecture 0.75 credits (11.25 contact hours).
Components: Lecture
Attributes: Remedial - English

ENG 91(1) Course ID: 006751

Composition Strategies
Provides practice in the writing process, stressing organization, idea development, and editorial improvement. Pre-requisite: As determined by KCTCS Placement Policy or successful completion of ENC 0911. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Remedial - English

ENG 91(0.25) Course ID: 006752

Introduction to Research
Introduces basic research and documentation through writing in response to reading. Pre-requisite: As determined by KCTCS Placement Policy or successful completion of ENC 091. Lecture: 0.25 credits (3.75 contact hours).
Components: Lecture
Attributes: Remedial - English

ENG 91(1) Course ID: 006753

Writing as Process
Provides practice in the writing process, stressing organization, idea development, and editorial improvement. Pre-requisite: As determined by KCTCS Placement Policy or successful completion of ENC 091. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Remedial - English

ENG 91(4) Course ID: 000468

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 Incurrent 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 100(2) Course ID: 000457

English Workshop
Provides parallel and supplemental review of English skills needed for students with an English ACT of 18 or 19 or a Compass placement test score between 70-80 who are also enrolled in ENG 101. If these students withdraw from ENG 100, they must also withdraw from ENG 101. Credit cannot be received by special exam. Lecture: 2 credits (30 contact hours). Pre-requisite: ACT score of 18 or 19 with a Compass placement score of 70-80. Co-requisite: Enrollment in ENG 101.
Components: Lecture
Attributes: Other

ENG 101(3) Course ID: 000467

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 102(3) Course ID: 000468

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 credible academic 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 103(5) 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 literary research and fulfills the writing/accessing information requirements. Pre-requisite: ACT English score of 25 or COMPASS English score of 95 AND ACT Reading score of 20 or COMPASS reading score of 90. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: WC - Written Communication

ENG 107(1) Course ID: 016136

Writing Craft: Introduction to Imaginative Writing
An introduction to the genres and craft of imaginative writing, including fiction, nonfiction, and poetry. Students will study and practice writing in various modes through composition, peer critique, and research. Lecture and workshop. Offers credit for the UK Core requirement in Intellectual Inquiry in Arts & Creativity. Fulfills ENG pre-major requirement and provides ENG minor credit. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, University Course (University of Kentucky)

ENG 135(3) Course ID: 000275

Greek and Roman Mythology in Translation
Examines mythic literature, primarily Greek and Roman texts. Includes selections from primary works such as Works and Days, The Iliad, The Odyssey, Greek tragedy, The Metamorphoses and The Aeneid, with attention to their influence on later literature and culture. Pre-requisite: English 101 and Reading ACT 20 or completion of transitional reading and writing. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

ENG 203(3) Course ID: 000472

Business Writing
Provides instruction and experience in writing for business, industry and government. Emphasizes clarity, conciseness, and effectiveness in preparing letters, memos, and reports for specific audiences. Pre-requisite: [ENG 101 and (ENG 102 or Consent of Instructor)] or ENG 105. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other, Course Also Offered in Modules

ENG 204(3) Course ID: 000474

Technical Writing
Provides instruction and experience in writing for science and technology. Emphasizes clarity, conciseness, and effectiveness in preparing instructions, proposals, and lab reports for specific audiences. Lecture: 3 credits (45 contact hours). Pre-requisite: [ENG 101 and (ENG 102 or Consent of Instructor)] or ENG 105.
Components: Lecture
Attributes: Other

ENG 207(3) Course ID: 000477

Instructor Consent Required
Creative Writing: (Subtitle Required)
Provides instruction for beginners in the craft of writing, teaching students how to revise work in progress. Involves practice in aspects of craft and promotes experimentation with different forms, subjects, and approaches; outside reading provides models and inspiration. May be repeated under different subtitles to a maximum of six credit hours. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other
ENG 208(3) Course ID:006704
Creative Writing: Short Story Workshop
Provides students with guidance in the craft of writing short fiction, how to read critically and how to rework in progress. Includes practice and experimentation with forms, subjects, and approaches to short stories. Outside reading provides models and inspiration. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other
ENG 221(3) Course ID:008479
Survey of English Literature I
Acquaints students with significant texts in English literature from the Middle Ages to the early 17th Century. Focuses on the literature in its social, political, and cultural contexts. Lecture: 3 credits (45 contact hours). Pre-requisite: ENG 101.
Components: Lecture
Attributes: AH - Arts and Humanities
ENG 222(3) Course ID:000481
Survey of English Literature II
 Covers the late 17th Century through the present with emphasis on important writers and cultural backgrounds. Focuses on social, political, and cultural contexts. Lecture: 3 credits (45 contact hours). Pre-requisite: ENG 101.
Components: Lecture
Attributes: AH - Arts and Humanities
ENG 230(3) Course ID:004530
Literature and Theme (subtitle required)
Introduces students to close reading and argumentative writing about literature, in relation to a significant theme. Examines selected texts revolving around a single theme, teaching students how to relate texts to contexts, to read closely, and to use basic literary terms and concepts. Considers student writing, particularly revising a thesis, crafting an argument, and learning how to use supporting evidence. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities
ENG 231(3) Course ID:004902
Literature and Genre (subtitle required)
Explores one or two different literary forms or genres, i.e., the formal categories into which literary works are placed, including the conventions of each genre and related sub-genres. Considers student writing. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities
ENG 232(3) Course ID:004903
Literature and Place (subtitle required)
Explores a number of selected literary texts with special attention to the author's connection to place and how the author's sense of place influences representations of experience. Considers student writing. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities
ENG 233(3) Course ID:004904
Literature and Identities (subtitle required)
Explores a number of selected literary texts, with special attention to the construction of personal, ethnic, racial, or national identity and considers how race, class, sexuality, and/or nationality influences representations of experience. Includes attention to student writing. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities
ENG 234(3) Course ID:004905
Introduction to Women's Literature
Introduces students to the rich body of women's writing. Explores common and differing themes, attitudes, cultural norms, and gender identity evident in multifaceted, diverse societies through analysis and discussion of texts by women writers. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities
ENG 251(3) Course ID:000483
Survey of American Literature I
An analysis of significant texts in U.S. literature from the Colonial era to the Civil War focusing on social, political, and cultural contexts. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities
ENG 252(3) Course ID:000485
Survey of American Literature II
An analysis of significant texts in U.S. literature from the post-Civil War era to the present focusing on its social, political, and cultural contexts. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities
ENG 261(3) Course ID:000487
Survey of Western Literature from the Renaissance through the Enlightenment
Studies the works of major Western authors from the Bible and Ancient Greek literature through the Renaissance. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities
ENG 262(3) Course ID:000489
Survey of Western Literature from 1660 to the Present
Studies the works by major Western authors from mid-17th century to the present. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities
ENG 264(3) Course ID:000490
Major Black Writers
Provides a cross-cultural and historical approach to written and oral works by major Black authors of Africa, the Caribbean, and the United States. Includes writers such as Chinua Achebe (Africa), Wilson Harris (Caribbean), and Toni Morrison (USA). Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities
ENG 270(3) Course ID:000491
The Old Testament as Literature
Surveys the major types of Old Testament literature in English translation. Examines historical backgrounds while emphasizing careful analysis of literary forms and techniques. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities
ENG 271(3) Course ID:000493
The New Testament as Literature
Surveys the major types of New Testament literature in English translation. Examines historical backgrounds while emphasizing careful analysis of literary forms and technique. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities
ENG 281(3) Course ID:000495
Introduction to Film
Introduces the study of movies as a narrative art and a cultural document. Requires viewing of films outside class. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Equivalents: HUM 281
ENG 282(3) Course ID:005429
International Film Studies
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.
Components: Lecture
Attributes: AH - Arts and Humanities
ENG 290(3) Course ID:005345
Special Topics in English
Examines selected topics in English. Includes, but not limited to, individual authors, specified genres, and/or new eras. Pre-requisite: ENG 101 or consent of instructor. Lecture: 1 - 3 credits (15-45 contact hours).
Components: Lecture
Attributes: Other
ENG 1011(0.75) Course ID:005788
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 ENG 091. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture
Attributes: Other
ENG 1012(0.75) Course ID:005789
Writing a Profile Essay
Focuses on academic writing. Provides instruction in reading critically, thinking logically, and responding to texts as a means of planning, drafting and revising essays that express thoroughly developed ideas in Standard English. Pre-requisite: ENG 101. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture
Attributes: Other
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 101, Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture
Attributes: Other
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 104. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Other
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 102. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Other
ENG 1023(1) Course ID:005793
Research and Argument
Emphasizes argumentative writing. Provides instruction in researching, proposing and revising an argumentative position, gathering and synthesizing research findings in support and documenting sources appropriately. Prerequisite: ENG 1022. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Other
ENG 2011(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) Specialized Business Messages
Course ID: 015860
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) Reports and Proposals
Course ID: 015861
Emphasizes lengthy and complex business messages, specifically researching for and writing business reports and business proposals. Pre-requisite: ENG 2032. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

ENM Energy Management

ENM 101(9) Energy Industry Fundamentals
Course ID: 007242
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) Sustainability Management
Course ID: 007243
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 relevant 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) Solar Design and Applications
Course ID: 007244
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) Commercial Energy Analysis
Course ID: 007219
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 management software will be used. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical
ENM 210(3) Smart Grid Applications
Course ID: 007220
Introduces students to the components needed to renovate the current vertical structured power grid to a smart grid structure power grid that will allow energy to flow in different directions. Focuses on the application of different components within a smart grid system and how they integrate and communicate with each other for smooth transmission of electricity. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical
ENM 230(3) Building Automation
Course ID: 007221
Introduces students to the components involved in a building automation system (BAS). Investigates the communication and components contained in an integrated building system that controls various components of an abuilding system. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical
ENM 250(3) Regulatory and Environmental Issues in Energy Management
Course ID: 007222
Observes building energy conservation code compliance adopted by various states. Completes 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

EQM Equine Management

EQM 100(3) Introduction to Equine Studies
Course ID: 004755
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) Introduction to Commercial Breeding Practices
Course ID: 004756
Introduces prospective horse farm personnel to the breeding farm environment. Includes topics that relate to the entire horse 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) Equine Business Management I
Course ID: 004852
Course in equine management that serves to introduce the student to private and commercial horse farmanagements, economic trends in the horse industry, intern, slaughtering, 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 242(3) Equine Law
Course ID: 004758
This course explores the value of legal documents as they relate to commercial and recreational horse ownership. 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) Current Trends in the Equine Industry
Course ID: 004759
Seminar course in the horse industry designed to provide students with the opportunity to investigate, evaluate and debate key issues confronting horse owners and horse industry participants. Students are encouraged to analyze controversial circumstances in the equine industry and provide insight and logical conclusion. Seminar topics may include such issues as equine adoption, slaughter, transport, medications, account wagering, and public image. Pre-requisite: EQM 242 or consent of instructor. Lecture 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical
EQM 250(3) Equine Practicum
Course ID: 004760
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
EQS 113(4) Course ID:005353
Instructor Consent Required
Racehorse Riding Skills II
Continues development of riding skills learned in EQS 112 by applying principles to riding racehorses in morning exercise sessions. Includes application of balance to evaluate soundness in racehorses; basic starting gate techniques for riders; principles of teaching young horses to enter and leave the starting gate and techniques for handling unruly horses. Pre-requisite: EQS 112 and consent of the instructor. Lecture/Lab: 4.0 credit (150 contact hours).
Components: Lecture
Attributes: Technical

EQS 115(3) Course ID:015655
Equine Health and Medications
Presents principles of health management as it relates to the prevention and treatment of common diseases, parasites and wounds. Pre-requisite: EQS 110 OR Consent of Instructor. Lecture: 3 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 breaking and riding a racehorse. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical

EQS 122(3) Course ID:005498
Instructor Consent Required
Yielding Breaking and Management
Introduces the basics of managing and training yearling and young racehorses including conformation, movement, pre-purchase examinations of racehorses and practical application of pressure-release techniques of breaking and training young racehorses. Pre-requisite: EQS 121 and permission of instructor. Lecture: 1 credit (15 contact hours). Laboratory: 2 credits (90 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

EQS 123(3) Course ID:005499
Breaking and Prepping Two-Year Olds
Covers basic principles of training racehorses through their breaking and prep training period. Lectures: 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical

EQS 125(3) Course ID:005804
Equine Nutrition
Prepares student for life as a professional jockey. Includes integration of principles of nutrition into an eating plan that will maintain weight and health. Introduces concepts of practical and nutritional management insurance and retirement planning on a jockey's salary. Ties together basic nutrition skills with interpersonal skills necessary for a successful career as a professional jockey. Pre-requisite: EQS 212 and permission of instructor. Lecture/Lab: 4.0 credit (150 contact hours).
Components: Lecture
Attributes: Technical

EQS 130(3) Course ID:005354
Introduction to the Racing Industry
Introduces students to racing industry organizations, personnel, and racing industry management. Pre-requisite: EQS 120 or concurrent enrollment in EQS 110. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EA 200(2) Course ID:005500
Lameness in Racehorses
Explores the basics of lameness in racehorses. Lecture: 4.0 credits (150 contact hours).
Components: Lecture
Attributes: Technical
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 104(3) Course ID:006638
Introduction to Reading and Vocabulary
High-beginning level students will improve fundamental reading skills and expand vocabulary as they interact with level-appropriate texts. Students will be recommended to this course based on the ESL placement examination.
Components: Lecture
Attributes: English for Foreign Students

ESL 111(4) Course ID:005308
Beginning Listening and Speaking
High-beginning level students will improve the ability to speak and understand English in simple everyday situations. Practice will be provided 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.
Components: Lecture
Attributes: English for Foreign Students

ESL 124(4) Course ID:005230
Intermediate Listening and Speaking
Intermediate listening and speaking skills will improve comprehension and communication in both social and academic settings. Instruction will include improving listening skills for academic note taking and small group discussions. Students will be expected to lead and share in class discussions based on reading and authentic listening materials. Students will also present orally in front of the class. Students will be recommended to this course based on the ESL placement examination.
Components: Lecture
Attributes: English for Foreign Students

ESL 134(4) Course ID:005307
Advanced Listening and Speaking
High-intermediate level ESL students will improve comprehension and communication in both social and academic settings. Instruction will include improving listening skills for academic note taking and small group discussions. Students will be expected to lead and share in class discussions based on reading and authentic listening materials. Students will also present orally in front of the class. Students will be recommended to this course based on the ESL placement examination.
Components: Lecture
Attributes: English for Foreign Students

ESL 204(4) Course ID:005216
Reading Improvement and Vocabulary Development for Low-Intermediate Non-Native English Speakers
Low-intermediate level students will review fundamental reading skills, learn and practice higher order reading skills, expand vocabulary and increase reading efficiency as they interact with level-appropriate texts. Pre-requisite: placement exam. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: English for Foreign Students

ESL 304(4) Course ID:005078
College Reading and Vocabulary Development for High-Intermediate Non-Native English Speakers
High-intermediate level ESL students will master fundamental reading skills, improve critical reading, and further vocabulary development. Students will be introduced to a variety of genres, such as newspaper articles and essays, poems, short stories, charts, graphs and college-level content textbooks. Through the selected readings, this course will foster critical awareness, comprehension, and interaction. The readings and activities introduced in the course will allow students to engage in meaningful dialogue, and in the process refine their English skills. Pre-requisite: ESL 020 or placement test.
Components: Lecture
Attributes: English for Foreign Students

ESL 313(1) Course ID:004037
Beginning Conversation for Non-Native English Speakers
Beginning level ESL students will learn basic conversation and practice basic sounds and intonation patterns.
Components: Lecture
Attributes: English for Foreign Students, Course Also Offered in Modules

ESL 513(3) Course ID:004043
Introduction to College Reading for Non-Native English Speakers
Beginning-level students will acquire or strengthen fundamental reading skills and expand vocabulary as they interact with level-appropriate texts.
Components: Lecture
Attributes: English for Foreign Students

ESL 523(3) Course ID:004044
Improved College Reading for Low-Intermediate Non-Native English Speakers
Intermediate-level students will review fundamental reading skills, learn and practice higher order reading skills, expand vocabulary and increase reading efficiency as they interact with level-appropriate texts. Pre-requisite: ESL 51.
Components: Lecture
Attributes: English for Foreign Students

ESL 614(1) Course ID:004046
Foundations of College Writing I for Non-Native English Speakers
Beginning level ESL students are introduced to composition with an emphasis on clarity, organization, development and correctness.
Components: Lecture
Attributes: English for Foreign Students

ESL 624(1) Course ID:004047
Foundations of College Writing II for Non-Native English Speakers
Low-intermediate level ESL students continue to enhance their composition skills by receiving instruction in the following: the writing process, organization, multi-paragraph writings, editing, and critical reading. Grammar instruction focuses on key structures and provides a springboard for expanding students' abilities in all language skills.
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 word order and syntax. Given to students who have received credit for ESL 61. Pre-requisite: Placement According to KCTCS Assessment and Placement Policy. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - English, English for Foreign Students

ESL 72(3) Course ID:007046
College Writing II for Non-Native Speakers
Introduces writing modes, including description, narration, comparison and contrast, cause and effect, process, and persuasion; 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, English for Foreign Students

ESL 81(3) Course ID:007211
College Grammar I for Non-Native Speakers
Introduces basic verb tenses, formatting 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 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - English, English for Foreign Students

ESL 82(3) Course ID:007047
College Grammar II for Non-Native Speakers
Introduces intermediate-level verb tenses, formation of questions, modal verbs, clauses, count and non-count nouns, and parts of speech to non-native speakers of English. Incorporates instructional methods that are designed for non-native speakers of English. A student cannot receive credit for both ESL 82 and ESL 62. Pre-requisite: Currently appropriate assessment scores or completion of ESL 81. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - English, English for Foreign Students

ESL 80(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.
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.
Components: Lecture
Attributes: English for Foreign Students

ESL 92(4) Course ID:005082
Advanced Writing for Non-Native English Speakers
ESL 92 is designed to help students prepare for ENG 101. High-intermediate level ESL students continue to work on the writing process, editorial improvement, and critical reading. Students will be introduced to documenting sources. Grammar instruction includes advanced grammatical points. Pre-requisite: ESL 91 or placement.
test. Components: Lecture
Attributes: English for Foreign Students
ESL 100(3)  Course ID:016566
Listening for Academic Purposes
This course cultivates skills to improve academic speaking performance for non-native speakers of English enrolled in American university classes. Special attention is given to effective academic presentations, interpersonal communication skills, pronunciation and accent. This course is designed to raise students’ speaking skills so they can participate in academic settings with competencies similar to their Native-speaker peers. Pre-requisite: KCTCS assessment instrument scores as shown in Mandatory Placement policy. Lecture: 3.0 credits (45 contact hours)
Components: Lecture
Attributes: University Course (University of Kentucky)

ESL 110(3)  Course ID:016517
Speaking for Academic Purposes
This course cultivates skills to improve academic speaking performance for non-native speakers of English enrolled in American university classes. Specialattention is given to effective academic presentations, interpersonal communication skills, pronunciation and accent. This course is designed to raise students’ speaking skills so they can participate in academic settings with competencies similar to their Native-speaker peers. Pre-requisite: KCTCS assessment instrument scores as shown in Mandatory Placement policy. Lecture: 3.0 credits (45 contact hours)
Components: Lecture
Attributes: University Course (University of Kentucky)

ESL 120(3)  Course ID:016568
Reading for Academic Purposes
This course cultivates skills to improve academic reading performance for non-native speakers of English enrolled in American university classes. Special attention is given to cross-disciplinary academic reading, reading rates and speeds, effective research methods, documentation and essay exams skills. This course is designed to raise students’ reading skills so they can participate in academic settings with competencies similar to their Native-speaker peers. Pre-requisite: KCTCS Assessment instrument scores as shown in Mandatory Placement policy. Lecture: 3.0 credits (45 contact hours)
Components: Lecture
Attributes: University Course (University of Kentucky)

ESL 130(3)  Course ID:016518
Writing for Academic Purposes
This course cultivates skills to improve academic writing performance for non-native speakers of English enrolled in American university classes. Special attention is given to cross-disciplinary research, collaboration, the writing process, content organization and development, editing and proofreading. This course is designed to raise students’ writing skills so they can participate in academic settings with competencies similar to their Native-speaker peers. Pre-requisites: KCTCS assessment instrument scores as shown in Mandatory Placement policy. Lecture: 3.0 credits (45 contact hours)
Components: Lecture
Attributes: University Course (University of Kentucky)

ESL 311(1)  Course ID:007396
ESL Greetings & Farewells
Highlights greetings and introductions, giving and receiving personal information, and making plans and discussing the future. Introduces expressing the future using the verb “to go.” Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: English for Foreign Students

ESL 312(1)  Course ID:007397
ESL Shopping & Eating
Focuses on reading a menu, ordering food, and activities related to shopping. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: English for Foreign Students

ESL 313(1)  Course ID:007398
ESL Making Appointments & Medical Needs
Focuses on making appointments, going to the doctor. Introduces numbers, dates, time, addresses, and using the telephone. Lecture: 1.0 credit (15 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 operations including basic chemical principles and specific chemistry of fuels, boiler and cooling water, steam, water treatment and environmental controls. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ESP 130(3)  Course ID:005493
Electrical Concepts
Provides an overview of the electrical concepts needed to operate a fossil-fueled power plant stressing plant electrical distribution and safe operation. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ESP 132(3)  Course ID:005494
Electrical Machinery and Controls
Provides detailed training in the operation of electrical machinery and controls in a fossil-fueled powerplant including proper operation during normal operations, startups and shutdowns, and transient. Pre-requisite: ESP 130. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ESP 211(3)  Course ID:005320
Power Plant Operations I
Introduces overall power plant operations including proper operation during normal operations, startups and shutdowns, and transient conditions. 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. 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 213(3)  Course ID:005322
Power Plant Operations III
Provides detailed training in the operations of water, steam, turbines and generator systems of a coal-fired (fossil fueled) power plant stressing proper operation during normal operations, startups and shutdowns, and transient conditions. Pre-requisite: ESP 211 or consent of the instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ESP 214(3)  Course ID:005321
Power Plant Operations IV
Provides detailed training in the operation of the auxiliary components of a power plant, including valves, traps, actuators, pumps, couplings, air compressors, seals, lubrication systems, air ejectors, heat exchangers, and switches. Proper operation of each type of component and its function in the plant will be stressed. Pre-requisite: ESP 211 or consent of the instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ESP 220(3)  Course ID:005495
Power Plant Thermodynamics
Introduces basic 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 Environmental Science Technology

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 disturbance of organismal communities. Includes weekly laboratory exercises to reinforce concepts learned in lecture. Lecture: 3 credits (45 contact hours). Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science

EST 160(3)  Course ID:004745
Hydrological Geology
This course provides an introduction to geology and hydrology with an emphasis on understanding natural processes and the effects of human activities. Major topics covered include: plate tectonics, formation and classification of rocks and minerals; the processes affecting the hydrologic cycle; soil formation and classification; subsurface geology and groundwater movement; stream formation and flow; floods; and human impacts to stream hydrology and morphology. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: 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, 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 biometrically to infer stream quality. Pre-requisite: EST 150.
Components: Lecture Attributes: Technical

EST 230(2) Course ID:004748
Aquatic Chemistry Laboratory
This course provides focused study on the chemistry of water. The course will provide students with laboratory experience in analyzing surface, ground, and drinking waters for a variety of chemical constituents. Laboratory: 2 credits (60 contact hours). Pre-requisite: CHE 105, CHM 105, and pre-requisite or concurrent EST 220.
Components: Laboratory Attributes: Technical

EST 240(4) Course ID:004749
Sources and Effects of Air Pollution
This course provides an introduction to the study of ambient and indoor air pollution with an emphasis on 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 pollutants. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (30 contact hours). Pre-requisite: EST 150 and CIT 130, or equivalent, or consent of instructor.
Components: Laboratory, Lecture Attributes: Technical

EST 250(3) Course ID:004750
Solid and Hazardous Waste Management
This course examines methods of managing solid and hazardous waste, with an emphasis on pollution prevention. Topics covered include relevant legislation, recycling, incineration, landfill operations, management of radioactive waste, remediation of waste sites and site worker health and safety. Pre-requisite: EST 150 and EST 160, or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

EST 260(2) Course ID:004751
Environmental Analysis Laboratory
This course provides an introduction to the fundamentals of analyzing environmental media. The course will provide students with laboratory experience in analyzing soil, surface water, groundwater, air and microbial samples. Laboratory: 2 credits (60 contact hours). Pre-requisite: CHE 105, CHM 105 and pre-requisite or concurrent EST 170.
Components: Laboratory Attributes: Technical

EST 270(3) Course ID:004752
Environmental Law and Regulation
This course is structured to provide the student with a basic understanding of major current federal and state environmental legislation and regulation with an emphasis on those portions that affect the regulated community. The course will also include an examination of the role of common law and the branches of government in environmental protection. Pre-requisite or concurrent: EST 220, EST 240, and EST 250 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

EST 280(1) Course ID:004753
Environmental Trends Seminar
This course provides an examination of current approaches used to address a variety of environmental problems. Students will hear and critique presentations from professionals in the environmental field. Students will also research and give a presentation on a specific method to minimize or eliminate a current environmental problem. Pre-requisite or concurrent: EST 150, COM 191 or COM 252, EST 170, EST 220, EST 260, and EST 250 or consent of instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture Attributes: Technical

EST 280(2) Course ID:017026
Applied Projects in Environmental Science Technology
Outlines varies as determined by project and instructor. Pre-requisite: Consent of EST Program Coordinator. Lecture: 1 credit (15 contact hours). Lab: 1 credit (30 contact hours).
Components: Lecture Attributes: Technical

ETT 110(4) Course ID:004231
Voice & Data Installer Level I
A comprehensive orientation to the telecommunication industry. Provides entry-level telecommunications 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 Algebra/geometry courses are recommended but not required. Lecture: 4 credits (75 contact hours).
Components: Lecture, Laboratory Attributes: Technical

ETT 111(3) Course ID:004232
Basic Electrical Theory: Telenetworking
Introduces the theory of electricity, magnetism, and the relationship of voltage, current, resistance, and power in electrical circuits 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
Allows the student to do hands-on applications of the theories and fundamentals learned in ETT 112. Co-requisite: ETT 112. Lecture: 1 credit (45 contact hours).
Components: Laboratory Attributes: Technical

ETT 114(4) Course ID:004234
Voice & Data Installer Level II
Designed for experienced telecommunications installers who wish to expand knowledge of the industry, learn new skills, and continue to advance professionally. The installer Level 2 course requires two to five years of successful telecommunication/low voltage cabling experience. In addition, several sections from the Installer Level 1 course will be covered comprehensively in this course. Pre-requisite: ETT 110 with a grade of C or greater. Lecture: 3 credit (45 contact hours); Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

EX 196L(1 - 6) Course ID:000747
Instructor Consent Required
Experiential Education
A planned and evaluated learning work experience for which the student receives academic credits and may receive financial remuneration. The work experience may be related to the student’s major or may be exploratory in nature. One credit may be awarded for each 40 hours of work experience. The course may be repeated for a maximum of 6 credits and is available on a Pass/Fail basis only. This course is open only to transfer, non-degree and undecided students. Lecture: Variable; Laboratory: Variable. Pre-requisite: Consent of instructor.
Components: Laboratory, Lecture Attributes: Technical

FAM 252(3) Course ID:000662
Human Sexuality: Development, Behavior, and Attitudes
Studies human sexuality, including the process of gender and attitudes, sexual response patterns, sexual behavior, and attitudes. Pre-requisite: 3.0 credit hours in social or behavioral science or consent of instructor.
Components: Lecture Attributes: SB - Social Behavior Science

FAM 253(3) Course ID:000666
Introduction to Family Science
Introduces the scientific study of the family, including important theoretical frameworks in family science, historical trends in marriage and family life, gender role theory, family life theory, parenthood, communication, economics of family life, conflict, divorce, step-families and step-parenting, and family strengths. Analyzes contemporary family issues and requires informed, written positions on those issues. Pre-requisite: 3.0 credit hours of social or behavioral science or consent of instructor.
Components: Lecture Attributes: SB - Social Behavior Science

FAM 255(3) Course ID:000059
Child Development
Overviews the various aspects of development (physical, social, emotional, intellectual) for children ages birth through adolescence. Emphasizes techniques of directed observation. Pre-requisite: 3.0 credit hours of social or behavioral science or consent of instructor.
Components: Lecture Attributes: Other, Technical

EX Experiential Education
ETT Electrical Technology
ETT Electrical Technology
FAM Family Studies
FAM Family Studies
FNM Health Mathematics Fundamental

FNM 100(2) Course ID: 001463
Dosage Calculations
Provides an overview of basic math skills, a thorough knowledge of the system of measurement and conversion, and application skills to perform dosage calculations. Emphasis is placed on unit analysis to calculate medication dosages.
Components: Lecture
Attributes: Technical

FLK Folk Studies

FLK 276(3) Course ID: 004779
Introduction to Folk Studies
An introduction to the study of folk traditions in different contexts, focusing on the concepts of folk group, cultural relativism, folklore, and the genres of folk narrative, folk song, and traditional material culture. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, AH - Arts and Humanities

FLM Filmmaking

FLM 112(4) Course ID: 016196
Filmmaking: Treatment to Short Screen Play
Provides project-based instruction on the basics of filmmaking. Familiarizes students with the process of creating a film treatment and a screenplay. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

FLM 122(4) Course ID: 016197
Filmmaking: Storyboard Production
Provides project-based instruction on the basics of film production. Familiarizes students with directing, set design, cinematography, and post-production. Co-requisite: (FLM 112 AND FLM 132 AND FLM 140) or Consent of Instructor. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

FLM 132(4) Course ID: 016198
Filmmaking: Editing through Distribution
Provides experience in graphic design, editing, music, and promotion. Emphasizes preparation of the visual and textual levels in the industry. Co-requisite: (FLM 112 AND FLM 122 AND FLM 140) or Consent of Instructor. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

FLM 140(2) Course ID: 016199
Filmmaking: Lab
Covers the practical aspects of filmmaking, including storyboarding, location scouting, and post-production. Co-requisite: (FLM 112 AND FLM 122 AND FLM 132) or Instructor Consent. Laboratory: 2.0 credits (30 contact hours).
Components: Laboratory
Attributes: Technical

FLM 190(3) Course ID: 016193
Film Boot Camp
Covers the organization and setup of a film production in the form of a film ‘boot camp’. Involves lecture from experts in the field. Provides real-world experience for first year students in the roles of Production Assistant, Assistant Director, Camera Assistant, and grip. Laboratory: 2.0 credits (30 contact hours).
Components: Laboratory
Attributes: Technical

FNS Funeral Services

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, attitudes, 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 110(2) Course ID: 006948
Funeral Service Management and Merchandising
Surveys management and merchandising techniques as related to the operation of a funeral business. Pre-requisite: Admission to Funeral Service Program. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

FNS 115(3) Course ID: 006949
Funeral Service Directing
Covers the funeral service procedures, practices and customs of various religions and groups in the United States, as well as the techniques and considerations needed in conducting such services. Pre-requisite: Admission to the Funeral Service Program. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

FNS 120(4) Course ID: 006950
Funeral Service Counseling
Examines psychological concepts in the areas of grief, bereavement, and mourning with particular emphasis on the roles of the funeral director in relation to these concepts as well as a facilitator of the funeralservice process. Pre-requisite: Admission to the Funeral Service Program. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

FNS 130(2) Course ID: 006951
Business and Mortuary Law
Surveys law and the judicial system as these relate to the operation of a business, focusing on those statutes and regulations pertinent to funeral directors and morticians. Pre-requisite: Admission to the Funeral Service Program. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

FNS 131(3) Course ID: 006952
Funeral Service Ethics, Regulations, and Statutes
Surveys general principles of mortuary and business law. Emphasis is on ethical practice. Compliance with pre-need and at-need regulatory agencies included. Pre-requisite: Admission to the Funeral Service Program. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

FNS 150(3) Course ID: 006953
Pathology
Investigates pathologic changes related to disease processes. Discusses the effect of physical and chemical trauma on the human body, particularly manifestations relevant to mortuary science. Surveys the major diseases. Pre-requisite: Admission to the Funeral Service Program and BIO 225 or equivalent. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

FNS 165(2) Course ID: 006954
Sociology of Funeral Service
Surveys social phenomena that affect all elements of funeral service, including family and social structure and other factors that relate to funeral service. Pre-requisite: Admission to the Funeral Service Program. PSY110 or SOC 101. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

FNS 170(4) Course ID: 006955
Thanatology
Surveys the basic principles of chemistry as they relate to funeral service. Stresses the chemical principles and precautions involved in sanitization, disinfection, public health and embalming practices. Reviews the government regulations of chemicals currently used in funeral service. Pre-requisite: Admission to the Funeral Service Program. Lecture: 3.0 credits (45 contact hours). Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
FRS 104(3) Course ID:001469
Firefighters Intermediate Skills I
Includes water supply, foam fire streams, fire alarms and communications, hazardous materials awareness, hazardous materials operations, sprinklers, and salvage and overhaul. Pre-requisite: FRS 103 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
FRS 105(3) Course ID:001470
Firefighters Intermediate Skills II
Includes fire department organization, fire behavior, personal protective equipment, fire hose, appliances and streams, forcible entry. Pre-requisite: FRS 103 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
FRS 201(3) Course ID:001471
Firefighters Advanced Skills I
Includes firefighter safety, rescue, ventilation ladders, fire control, and emergency disaster planning. Pre-requisite: FRS 103 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
FRS 202(3) Course ID:001472
Firefighters Advanced Skills II
Includes portable fire extinguishers, water supply, pump operations, foam fire streams, salvage, fire prevention, public education, and fire cause determination. Pre-requisite: FRS 104 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
FRS 203(3) Course ID:001473
Firefighters Advanced Skills III
Includes pump operations II, drivers training, overhaul, fire alarms and communications, sprinklers, and practical. 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
Firefighter I
Includes incident safety officer, haz-mat tech., fire prevention, public education and fire cause determination II. Pre-requisite: FRS 204 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
Firefighter II
Includes EMT, managing company tactical operations, decision making, and instructional techniques for company officers. Pre-requisite: FRS 205 or Consent of Instructor. Lecture: 8 credits (160 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
FRS 207(6)
Firefighter III
Includes company officer, incident command system (ICS), leadership strategies for company success, and fire/air/land detection. Pre-requisite: FRS 203 or Consent of Instructor. Lecture: 6 credits (90 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
FRS 101(0.7) Course ID:003890 13-AUG-2008
Fire Department Organization I
Includes an overview of fire department organization, the role of department members, the mission of the department, standard operating procedures, rules and regulations, components of management, introduction to the Incident Command System and the roles of other agencies. Lecture: 0.7 credits (10 contact hours).
Components: Lecture
FRS 102(0.3)
Fire Behavior I
Explores the aspects of the behavior of fire in its various forms. Covers the classification of fuel, product of combustion, and safety issues related to life hazards. Explains the three physical states of matter in which fuels are commonly found. Lecture: 0.3 credits (4 contact hours).
Components: Lecture
FRS 103(0.4)
Firefighter Safety
Introduces the concept of safety in all phases of fire department operations. Covers station safety in normal day to day fire department operations as well as emergency response. Lecture: 0.4 credits (6 contact hours).
Components: Lecture
FRS 104(0.8)
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 102 and FRS 1013) consent of instructor.
Components: Laboratory, Lecture
FRS 105(0.2)
Portable Fire Extinguishers I
Covers types, classification and use of fire extinguishers including the definitions utilized in rating extinguishers and the selection of a given extinguisher in attacking a particular class of fire.
Components: Laboratory, Lecture
FRS 106(0.6)
Fire Hose, Appliances and Streams I
Introduces the student to the types, uses and operations of fire hose, appliances and streams used in the fire service. Pre-requisite: FRS 104 or Consent of Instructor
Components: Laboratory, Lecture
FRS 102(0.2)
Ropes I
Familiarizes the student with the use and maintenance of rope and the various ties useful to hoisting equipment, securing objects and rescue. Pre-requisite: (FRS 101 or FRS 1014) or Consent of Instructor.
Components: Laboratory, Lecture
FRS 102(0.6)
Ladders I
Covers basic information pertaining to the use of ladders in the fire service including ladder terminology, types of ladders and ladder carries and raises. Pre-requisite: FRS 1021 or Consent of Instructor
Components: Laboratory, Lecture
FRS 102(0.4) Course ID:003898 13-AUG-2008
Aircraft Rescue
Provides the basic information needed by firefighters to effectively perform the various tasks involved in aircaft 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 (60contact hours).
Components: Lecture
FRS 1024(0.4)
Rescue I
Addresses the procedures of search for location, removal of entrapped and/or injured persons under fireconditions, and identifies the equipment required by the National Fire Protection Association used to affect the procedures. Pre-requisite: FRS 1022 or Consent of Instructor
Components: Laboratory, Lecture
FRS 102(0.3)
First Aid
Addresses the knowledge and skills for administering first aid including the assessment and treatment of injuries and illness during training or during activities until a higher level of trained emergency care technician/nes.
Components: Laboratory, Lecture
FRS 1028(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) studies and behavior regarding human infections, and covers requirements of OSHA 1910.1030. Lecture: 0.3 credits (4 contact hours).
Components: Lecture
FRS 1027(0.1)
Emergency Disaster Planning I
Introduces the concept of emergency management and the importance of an incident command system. Identifies the likelihood of fire department involvement as an all-hazard type response agency. Lecture: 0.1 credits (2 contact hours).
Components: Lecture
FRS 1028(0.2)
Firable Entry I
Addresses the knowledge and skills for administering care for respiratory or cardiac arrest including airway, breathing, and circulation assessment and the procedures to eliminate blockage of the airway, provide breathing assistance, and cardiac compressions.
Components: Lecture
FRS 1031(0.7)
Building Construction
Improves the ability of students to assess building stability and resistance to fire. Teaches to protect thieves of firefighters and community residents, while improving operational effectiveness through more complete and accurate "size-ups." Upgrades the skills of our nation's fire service.
Components: Lecture
FRS 1032(0.5)
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
Components: Laboratory, Lecture
FRS 1034(0.4)
Ventilation I
Involves the study of the principles of ventilation, including the methods of removing heated air, smoke and gases from a structure. Includes a review of roof structures and their effects on ventilation procedures. Pre-requisite: FRS 1022 or Consent of Instructor Co-requisite: FRS 1033 or Consent of Instructor
Components: Laboratory, Lecture
FRS 1041(0.4)
Water Supply I
Provides the firefighter with a general understanding of water systems. Broadens the base of understanding of water supply systems and how it works. Covers hydrant systems as well as static water sources for
determining their value as a firefighter water supply source. Pre-requisite: (FRS 1012 and FRS 1016) or Consent of Instructor.

Components: Laboratory, Lecture

FRS 1042(0.2) Course ID: 003942

Foam Fire Streams I
Instructs the student in foam performance, extinguishing properties and types of foam used in the fire service today. Pre-requisite: (FRS 1012 and FRS 2023) or Consents of Instructor.

Components: Laboratory, Lecture

FRS 1043(0.3) Course ID: 003943

Salvage I
Reviews salvage methods and operating procedures that further reduce fire, water, and smoke damage during and after fires. Pre-requisite: FRS 1033 or Consent of Instructor.

Components: Laboratory, 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.

Components: Lecture

FRS 1052(0.4) Course ID: 003909

Fire Behavior II
Describes the chemistry and behavior of fire. Looks at finely divided fuel, flash point, ignition temperatures and heat sources. Pre-requisite: FRS 1012 or Consent of Instructor.

Components: Lecture

FRS 1053(0.5) Course ID: 003910

Personal Protective Equipment II
Addresses the nomenclature, use, maintenance, and documentation relative to the personal protective equipment including protective clothing and self-contained breathing apparatus. Pre-requisite: FRS 1014 or Consent of Instructor.

Components: Laboratory, Lecture

FRS 1054(0.6) Course ID: 003911

Fire Hose, Appliances and Streams II
Covers the selection, maintenance and testing of fire hose, nozzles and appliances. Pre-requisite: FRS 1033 or Consent of Instructor.

Components: Laboratory, Lecture

FRS 1055(0.7) Course ID: 003912

Ropes II
Includes rope size, strength, type and length of rope to accomplish a firefighting or rescue task. Pre-requisite: FRS 1021 or Consent of Instructor.

Components: Laboratory, Lecture

FRS 1056(0.5) Course ID: 003913

Forcible Entry II
Identifies materials and construction features of doors, windows, walls, and door and window locking devices. Teaches forced entry through at least three different types of doors, windows, and walls. Discusses maintenance of tools and equipment used for forced entry and safety factors involved. Pre-requisite: FRS 1028 or Consent of Instructor.

Components: Laboratory, Lecture

FRS 2011(0.3) Course ID: 003914

Fire 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 1028 and FRS 1034) or Consent of Instructor.

Components: Lecture

FRS 2012(0.7) 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.

Components: Laboratory, Lecture

FRS 2013(0.3) 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.

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-requisites: FRS 1034 or Consent of Instructor. Lecture: 0.3 credits (40 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 crawlspaces, 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. Includes extensive use of simulation to apply concepts and develop skill. Pre-requisite: FRS 1027 or Consent of Instructor. Lecture: 0.8 credits (13 contact hours).

Components: Lecture

FRS 2021(0.1) Course ID: 003920

Portable Fire Extinguishers II
Covers types, classification and use of fire extinguishers including the definitions utilized in rating 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

FRS 2023(1.1) Course ID: 003922

Pump Operations I
Includes the basic minimum requirements of professional competence of fire service pump operators. Pre-requisite: FRS 1041 or Consent of Instructor.

Components: Laboratory, Lecture

FRS 2024(0.1) Course ID: 003923

Foam Fire Streams II
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 the, 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 the 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

FRS 2027(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 2029(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.

Components: Laboratory, Lecture

FRS 2033(0.2) Course ID: 003927

Overhaul II
Includes information pertaining to overhaul including safety precautions, indicators of structural instability, the preservation of evidence and the procedures for restoration of the fire premises. Pre-requisite: FRS 1044 or Consent of Instructor. Lecture: 0.2 credits (3 contact hours).

Components: Lecture

FRS 2034(0.3) Course ID: 003928

Fire Alarms and Communications II
Discusses the policies and procedures concerning ordering and transmitting of multiple alarms and supervisory alarm equipment. Pre-requisite: FRS 1045 or Consent of Instructor. Lecture: 0.3 credits (5 contact hours).

Components: Lecture
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 101 and FRS 102 and FRS 103 and FRS 104.
Components: Practicum

FRS 2041(3) Course ID:003931
First Responder (EMS)
Covers selected aspects of trauma care as outlined by the national standard created by federal guidelines and considered to be the responsibilities services with emergency medical response missions, consisting of classroom and laboratory instructions. Involves typical anatomy and physiology, patient assessment, care for respiratory and cardiac emergencies, control of bleeding, application of dressing and bandages, treatment for traumatic shock, care for fractures, dislocation, sprains and strains, medical emergencies, emergency childbirth; burns and heat emergencies; environmental emergencies; principles of vehicle rescue; 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 pre-fire planning, fire incident reports, building fire safety surveys, school exit drills, homesafety programs, common fire hazards, fire cause detection, protection and detection systems and identification of structural deficiencies that could cause fires. Pre-requisite: FRS 2026 or Consent of Instructor.
Components: Lecture

FRS 2052(1.1) Course ID:003958
Firefighter Survival & Rescue
This intensive training course was developed in response to the tragic deaths of many firefighters across th etnation in the past several years. Many of those who perished did so because they could not get out of the burning 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 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 released using specialized chemical-protective clothing and specialized control equipment. Pre-requisite: FRS 1047 or Consent of Instructor.
Components: Laboratory, Lecture

FRS 2061(6) Course ID:003934
Emergency Medical Technician (EMT)
Covers all knowledge aspects of trauma care as outlined by national standards, created by federal guidelines, considered to be the responsibilities of ambulance operations. Involves typical anatomy and physiology, patient assessment, care for respiratory and cardiac emergencies, control of bleeding, application of 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 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 and development of skills. Provides an effective approach to command decisionmaking and organization. Focuses on a review of the command sequence and an overview of incident command/structural firefighting principles. Pre-requisite: Consent of Instructor. Lecture: 1 credit (15 hours).
Components: Lecture

FRS 2063(1) Course ID:003936
Instructional Techniques for Company Officers
Designed for company officers and other fire or rescue personnel with the responsibility for conductingperiodic 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 skill training, and adult learning. Pre-requisite: (FRS 101 and FRS 102 and FRS 103 and FRS 104 and FRS 105 and FRS 201 and FRS 202 and FRS 203) or Consent of Instructor.
Components: Laboratory, Lecture

FRS 2071(3.5) Course ID:003937
Company Officer
Involves information and activities needed to meet the minimum standards of Fire Service Company Officers inpracticing competencies relative to administrative and incident resolution consistent with National Fire Protection Association Code 1021. Pre-requisite: (FRS 101 and FRS 102 and FRS 103 and FRS 104 and FRS 105 and FRS 201 and FRS 202 and FRS 203) or Consent of Instructor. Lecture: 3.5 credits (52 contact hours).
Components: Lecture

FRS 2072(0.9) Course ID:003938
Incident Command System (ICS)
Meets the needs of fire officers and managers with responsibilities to use, deploy, implement and/or function within a departmental Emergency Management System. Addresses the need for incident management systems, overview of the structure and expandability of ICS, an understanding of the command skills needed bydepartmental officers to effectively use ICS, guidelines and scenario practice on how to apply ICS, 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 perform effectively as a leader in the fire service environment. Addresses techniques and approaches topriority-solving, identifying and assessing the needs of the company officers subordinate, running meetingseffectively 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
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GEN 240(3) 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) Employment and Professional Skills

Presents the process of effective career planning and develops the skills necessary for obtaining and maintaining employment. Lecture: 1 credit (15 contact hours).

Components: Lecture
Attributes: Technical

GEN 102(1) College Basics & Learning Styles

Provides 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 202(1) Critical Reading and Thinking

Presents strategies and tools to promote critical reading and thinking. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

GEN 203(1) 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 125(1) 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 125(2) 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 253(1) 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 251(1) Philosophy and Self-Awareness

Introduces regional geography with a focus on the world's physical and human landscapes. Emphasizes connections between regions and how each region affects and is affected by global issues such as economic restructuring, food production, and environmental change. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

GEN 100(3) Course ID:000351

Earth's Physical Environment

A course exploring the fundamental characteristics of earth's physical environment. Emphasis is placed on understanding 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.

Components: Lecture
Attributes: SN - Science

GEN 152(3) Course ID:000398

Regional Geography of the World

Provides skills for managing financial resources and making appropriate economic decisions. Pre-requisite: GE2251 or Consent of Instructor. Lecture: 0.3 credits (4.5 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules

GEN 252(5.0) Course ID:006600

Project / Time Management Basics

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 125(3) Course ID:0004489

Employment and Professional Skills

Presents the process of effective career planning and develops the skills necessary for obtaining and maintaining employment. Lecture: 1 credit (15 contact hours).

Components: Lecture
Attributes: Technical

GEN 102(1) Course ID:007078

College Basics & Learning Styles

Provides 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 102(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 102(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 102(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 125(2) 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 125(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 140(1) 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

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 skill 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 1751(0.4) 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) Exploring Employment Strategies

Explores elements of the pre-employment process. Lecture: 0.4 credits (6.0 contact hours).

Components: Lecture

GEN 1753(0.4) 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) Customer Service

Presents basic approaches for effective customer service skills. Lecture: 0.4 credits (6.0 contact hours).

Components: Lecture

GEN 1755(1) 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) 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

Global Awareness

Provides skills for reasoning, open dialogue with diverse cultures, and complex systems. Pre-requisite: GE2251 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 knowledge about cultural differences, value of diverse teams, and social respect. Pre-requisite: GE2251 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

Self-directed Learning

Identifies skills and strategies for being a self-starter 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

GEN 2257(0.3) Course ID:006609

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 2258(0.3) Course ID:006609

Citizenship

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: Consent of Instructor

GEN 2259(0.4) 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 skill 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 240(3) Course ID:0004489

Employment and Professional Skills

Presents the process of effective career planning and develops the skills necessary for obtaining and maintaining employment. Lecture: 1 credit (15 contact hours).

Components: Lecture
Attributes: Technical
294

GER 101(4) Course ID: 0000884
Elementary German I
Includes fundamentals of German with development of the four basic skills: reading, writing, listening, and speaking.
Components: Lecture
Attributes: Foreign Language, Cultural Studies
GER 102(4) Course ID: 0000759
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
Attributes: Foreign Language, Cultural Studies

GIS 110(3) Course ID: 004761
Spatial Data Analysis and Remote Sensing
Introduces spatial analysis, the interpretation of map data, and the use of handheld Global Positioning Systems to collect data. Intended for those interested in a career in civil engineering or surveying. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (15 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

GIS 120(3) Course ID: 004762
Introduction to Geographic Information Systems
Presents a comprehensive survey of the fundamental concepts of GIS, providing students a command over the software to import raster and vector data into a GIS and to conduct simple analyses over their data. Intended for those with limited experience with GIS who are exploring career opportunities in the field. Pre-requisite: GIS 110. Lecture: 3 credits (45 contact hours).
Components: Lecture

GIS 145(3) Course ID: 016881
Remote Sensing
Introduces remote sensing of the earth with topics that include the physical principles of remote sensing, history and future trends, sensors and their characteristics, image data sources, and image classification and analysis techniques. Pre-requisite or Co-requisite: CIT 125 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

GIS 201(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 the data. Pre-requisite: GIS 120. Lecture: 3 credits (45 contact hours).
Components: Lecture

GIS 255(3) Course ID: 016882
Geospatial Programming
Examines customization of GIS software applications by way of modified service interface elements while discovering topics in theory and implementation of the various scripting languages currently used. Prepares students to solve geospatial problems and streamline GIS workflows through the creation and modification of scripts. Pre-requisite: CIT 125 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

GLY 101(3) Course ID: 000078
Physical Geology
Introduces the principles of physical geology, including study of minerals and rocks, volcanoes and earthquakes, plate tectonics, and the landforms of Earth's surface. Requires concurrent enrollment in GLY 111.
Components: Lecture
Attributes: SN - Science

GLY 102(3) Course ID: 000757
Historical Geology
Covers the history of the Earth: its origin as part of the solar system, and subsequent evolution of the atmosphere, continents, seas, and life as interpreted from the rock record. Includes in addition to lecture illustrations, field trips and out-of-class exercises. Gives attention to the development of the basic principles used in interpretation. Pre-requisite: GLY 101 and GLY 111 or consent of the instructor. Co-requisite: GLY 112.
Components: Lecture
Attributes: SN - Science

GLY 110(3) Course ID: 002218
Environmental Geology
Introduces and applies basic geological concepts to current environmental issues including the availability and use of water and soil resources, pollution causes, effects and solutions, and causes and prediction of environmental hazards including floods, landslides, subsidence, earthquakes and volcanoes. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

GLY 111(1) Course ID: 000544
Physical Geology Laboratory
Identify minerals and rocks in hand specimens, interpret landscape features as shown on topographic maps, and study geologic maps. Co-requisite: GLY 101. Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: SL - 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: GYL 110. Lab: 1.0 credit (30 contact hours).

Components: Laboratory
Attributes: SL - Science Laboratory

GLY 125(3) Course ID:016917
Geology of the National Parks and Monuments
Introduces the principles of physical geology within the context of the U.S. National Parks and Monuments, including Earth materials, geologic time, plate tectonics, and the surface and internal processes that have shaped the Earth. Traces the history of dinosaurs from the first vertebrates to their final extinction, and surveys the history of geology and Earth science. Focuses on the fundamental geologic processes that shape the Earth and the ecosystems within it.
Components: Lecture
Attributes: Other

GLY 130(3) Course ID:003781
Dinosaurs and Disasters: A Brief History of the Vertebrates
Examines the history of dinosaurs in relation to their environment, their interactions with other organisms, and their impact on human culture. Introduces the principles of paleontology and the fossil record, and explores the relationships between dinosaurs and other ancient life forms.
Components: Lecture
Attributes: SN - Science

GLY 131(1) Course ID:007361
Dinosaur Laboratory
Analyzes the diversity and evolution of dinosaurs, using specimens and museum collections. Provides an opportunity to study and analyze fossils, and to learn about the techniques used by paleontologists to reconstruct the past.
Components: Laboratory
Attributes: SL - Science Laboratory

GLY 140(3) Course ID:016864
Introduction to Oceanography
Investigates the physical, chemical, and biological processes that govern the dynamics of the oceanic environment, and the interactions between the ocean and the atmosphere. Focuses on the major oceanic currents, their role in the global climate system, and the impact of human activities on the ocean.
Components: Lecture
Attributes: Other

GLY 220(4) Course ID:000847
Principles of Physical Geology
Focuses on the fundamental principles of physical geology, including the structure and composition of the Earth, the laws of movement, and the processes that shape the Earth's surface. Includes field trips and laboratory experiments.
Components: Lecture
Attributes: Other

HCS Health Care

HCS 110(1) Course ID:016971
Culture of Healthcare
Covers job expectations and roles of clinical personnel in a healthcare setting. Discusses healthcare organization inside a practice setting, privacy laws, professional and ethical issues encountered in the workplace, and common form of care delivery. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Other

HCS 125(1) Course ID:016972
History in Healthcare
Introduces the concept of “meaningful use” of electronic health records as well as the development and background of the IT landscape in healthcare and public health, including experiments from the 1950s and 1960s culminating in the HITECH Act. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Technical

HCS 200(3) Course ID:007419
Introduction to Health Care Informatics
Provides the foundation in the discipline of Health Care Informatics (HCI) by introducing basic concepts, historical development, current and future trends in the specialized discipline and the role of the health informaticist in healthcare organizations. Clarifies the skills and knowledge required for successful integration of real-time documentation in healthcare informatics and management of that technology within the healthcare environment. Pre-requisite: Minimum of an associate degree in a healthcare applied science or instructor consent. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other

HCS 210(3) Course ID:007420
Management of Health Care Information and System Security
Provides students with fundamental concepts in the discipline of health care informatics security systems that are required in the management of electronic data. Prepares the student to manage data information system securely within the context of the developing standards of practice. Pre-requisite: HCS 125 Introduction to Health Care Informatics or Instructor Consent. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other

HCS 220(3) Course ID:007421
Database Systems in Healthcare
Provides an overview of the principles of database systems and their applications in healthcare informatics. Focuses on the design and implementation of database systems for healthcare organizations.
Components: Lecture
Attributes: Other

HCS 230(3) Course ID:007422
Legalities and Ethics in Health Care Informatics
Presents issues that the health care system faces in relation to legal issues, ethical dilemmas and regulatory practices surrounding the real-time electronic health record and healthcare information systems. Pre-requisite: HCS 220 Introduction to HealthCare Informatics or instructor consent. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other

HCS 240(4) Course ID:007423
Project Management in Health Care Informatics
Introduces project management in healthcare informatics. Includes the planning and analysis of documentation system needs, implementation, post go-live support of system and upgrades to the system, and software and support issues during the conversion phase. Includes project management tools designed for facilitation of the student gaining a higher level of understanding of processes that are required for a positive project management outcome. Pre-requisite: HCS 200, HCS 210, HCS 220, and HCS 230. Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: Other

HCS 150(2) Course ID:016974
Health IT Analysis & Quality
Introduces concepts of Health IT and practice workflow process analysis and redesign. Addresses how establishing a culture to support increased quality and safety is critical in the healthcare environment. Discusses the approaches to assessing patient safety issues, implementing quality management, and reporting through electronic systems. Pre-requisite or Co-requisite: CIT 105 AND HCS 145, or consent of Instructor. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

HCS 180(1) Course ID:016976
Usability and Human Factors
Introduces rapid prototyping, user-centered design and evaluation, and usability. Emphasizes the effects of new technology and workflow on downstream processes, as well as facilitation of a unit-wide focus group orientation. Pre-requisite or Co-requisite: CIT 105 AND HCS 145, or consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Technical

HCS 200(1) Course ID:016977
Health IT Computer Systems
Provides an intermediate overview of computer architecture, data organization, representation, structure of programming languages, networking, and data communication about Health IT Systems. Pre-requisite or Co-requisite: CIT 105 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Technical

HCS 210(3) Course ID:016978
Implementing Health IT Systems
Introduces the OSI model, including the purpose and content of each of its seven layers as well as hardware, processors, protocols, and tools at each layer. Provides a practical experience that will address approaches to assessing, selecting, and configuring EHRS (electronic health records) to meet the specific needs of customers and end-users. Emphasizes the principles underlying system configuration, including system selection, planning, testing, troubleshooting, and final deployment. Pre-requisite or Co-requisite: AHCS 145 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HCS 220(1) Course ID:016979
Working with HIT Systems
Introduces the components of Health IT systems and their applications. Introduces the potential threats to security and need for standards, high levels of usability, and awareness...
HEO 107(7) Course ID:015676
Utility Tractor Loader Operator
Provides a broad base of skills required to operate heavy equipment with an emphasis on safety. Focuses on job awareness and industry requirements. Permits experience on dump truck and utility tractor loader. Pre-requisite or Co-requisite: DIT 103. Lab: 7.0 credits (210 contact hours).
Components: Laboratory
Attributes: Technical

HEO 280(1) Course ID:016898
Health IT Instructional Design
Examines Health IT learning management systems, instructional design software tools, teaching techniques and strategies, evaluation of learner competencies, maintenance of training records, and measurement of training program effectiveness. Pre-requisite or Co-requisite: HCS 165 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Technical

HEO 281(1) Course ID:016893
Health IT Customer Service
Develops customer service skills to encourage effective communication across the team. Introduces roles that will be encountered in healthcare and public health settings. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Technical

HEO 290(1) Course ID:016894
Leadership for Health IT
Develops the processes and skills for leadership roles and effective management of teams. Emphasizes the leadership modes and styles best suited to Health IT system deployment. Pre-requisite or Co-requisite: HCS150 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Technical

HEO 295(1) Course ID:016895
Health IT Capstone
Serves as the capstone course for the certificate program. Integrates prior learning outcomes into a single integrated learning experience. Includes preparation for and completion of the end of program assessment for the Health Care Specialist Certificate. Pre-requisite or Co-requisite: Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Technical

HEO 106(7) Course ID:001522
Motor Grader Operator
Examines a broad base of skills required to operate heavy equipment with an emphasis on safety. Operation of motor-grader will be learned by students. Pre-requisite: DIT 103. Lab: 7.0 credits (215 contact hours).
Components: Laboratory
Attributes: Technical

HFL 100(3) Course ID:015593
Introduction to Healthcare Facility Management
Introduces students to Healthcare Facility Leadership by presenting an overview of the history and development of healthcare engineering. The student will learn the importance of compliance with the various codes and standards applicable to the healthcare facility environment; explore the driving factors affecting the operations and maintenance of health care facilities; review the complexity of delivering engineering in a patient centered environment; gain understanding of the complex structure and reporting relationships that exist in the industry; understand how the facility environment impacts regulatory requirements, clinical needs, and financial bottom line of healthcare; and gain an understanding of his/her role within the facility management department and the hospital setting. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HFL 110(2) Course ID:015594
Introduction to Healthcare Industry
Introduces students to the healthcare industry by examining healthcare reporting relationships, organizational structures, personnel, facility types, department configurations, terminology, regulatory environment, and accreditation process. The course will also examine industry shifts related to an aging population and healthcare law changes. The student will have a clearer understanding of how to navigate the healthcare industry based on size and complexity. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

HFL 120(2) Course ID:015663
Infection Control and Prevention
Examines the historical and evolving infection control complexities from both a clinical and physical environment perspective. Reviews changes the industry has taken to address this growing healthcare industry challenge. Studies how the physical environment and engineering practices during construction and maintenance impact infection control. Reviews infection control risk assessments and prevention documentation and techniques. Lecture 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

HFL 130(3) Course ID:015664
Compliance, Codes and Standards I
Introduces student to the various codes & standards, regulatory, and accreditation agencies in Healthcare. Takes into consideration local, state, and federal regulatory bodies such as Occupational Safety and Health Administration (OSHA), National Fire Protection Association (NFPA), Building Owners and Managers Association (BOMA), Center for Medicare and Medicaid Services (CMS), American Society for Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE), International Organization for Standardization (ISO), National Electrical Code (NEC), International Building Code (IBC), The Joint Commission, and the DNV. Examines the facility leader’s role in coordination and participation in the accreditation and regulatory survey processes. Evaluates the roles 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 201(6) Course ID:015679
Heavy Equipment Operating II
Reinforces material first presented in HEO 151. Provides intermediate instruction for students in the operation of heavy equipment such as bulldozers, backhoes, front end loaders, graders, and scrapers. Explains intermediate techniques of operation such as digging, ditching, sloping, stripping, grading, backfilling, clearing fields, and foundation excavating. Pre-requisite or Co-requisite: DIT 103. Lecture: 6.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

HFL 225(3) Course ID:001528
Special Problems II
Reinforces material presented in HEO 150, 200, and 250. The student will also examine emergency plan development and implementation for all phases of 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 251(6) Course ID:015680
Heavy Equipment Operating III
Reinforces material presented in HEO 151 and 201. Provides advanced instruction for students in the operation of heavy equipment such as bulldozers, backhoes, front end loaders, graders, and scrapers. Explains advanced techniques of operation such as digging, ditching, sloping, stripping, grading, backfilling, clearing fields, and foundation excavating. Pre-requisite or Co-requisite: DIT 103. Lecture: 6.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical
HFL 140(3) Course ID:015665
Maintenance and Operations I
Examines and reviews mechanical, electrical, plumbing, medical gas, environmental, building envelope, medical, steam, and security systems that comprise most healthcare facilities. Reviews computer systems and software such as building automation, fire systems, work order systems, and CAD/BIM used by facility engineering. Understands equipment inventory, entry control, and disposition. Develops maintenance program for buildings, equipment, utilities, and grounds. Reviews energy management and benchmarking. Pre-requisite: HFL 101 Introduction to Healthcare Facility Management. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

HFL 150(3) Course ID:015666
Planning, Design and Construction I
Covers project management delivery from concept, development, design, contracting, method, bidding, budgeting, equipment acquisition, specifications, and meeting management. Develops and reviews current Infection Control Risk Assessment (ICRA) practices and documentation. Develops and reviews Interim Life Safety Measures (ILSM) and documentation. Pre-requisite: HFL 101 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 systems programs. Develops and conducts environmental rounds and surveys. Develops standard specific policies and procedures, such as National Fire Protection Association (NFPA) 99 electrical equipment safety inspection requirements. Pre-requisite: HFL 130 Compliance, Codes and Standards I. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

HFL 240(3) Course ID:015668
Maintenance and Operations II
Examines the administration and coordination of work order processes to include preventive maintenance, corrective maintenance, moves, and projects. Applies equipment risk assessments in developing a maintenance program. Tests, monitors, and documents air quality, air exchange, and pressure relationships. Maintains control 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) activities in healthcare delivery. 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
Examines and applies Performance Improvement (PI) activities in healthcare engineering operations, maintenance, and project environment. Develops goals using the SMART guidelines (Specific, Measurable, Achievable, Realistic, Time bound). Develops and manages capital budgets, operating budget recommendations, generates financial, productivity and performance dashboards. Develops and implements equipment and systems training programs. Develops and monitors customized measures, indicators, and trends from computerized maintenance data. Co-requisite: HFL 140 Maintenance and Operations I. Lecture: 3.0 credits (45 contact hours).
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, termination, scheduling, staff orientation, and job descriptions). Performs and participates in organizational strategies, 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.
Components: Lecture Attributes: Technical

HIM 104(3) Course ID:004304
Museum Studies: Characteristics & Overview
This course provides an introduction to the profession of museum studies. Course topics include the history, development, and nature of work in the profession; the basics of collections management and development; intellectual control; exhibit design; preservation; and technological applications.
Components: Lecture Attributes: Technical

HIM 106(3) Course ID:004305
Records Management: Characteristics & Overview
This course provides an introduction to the profession of records management. In addition to the history, development, and nature of work in the profession, the course will present the basics of files and form management, records inventory and analysis, scheduling and reporgaphy, electronic records and record centeroperation.
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. Topics covered include intellectual content, documentation strategies, appraisal theories, and accessioning practices. Students are expected to complete an accession record, including records transmittaiform, deed of gift, and accession form. Pre-requisite: HIM 102.
Components: Lecture Attributes: Technical

HIM 214(3) Course ID:004308
Archives Studies: Preservation & Conservation
This course provides an in-depth analysis of the conservation and preservation issues confronting archives. Included in this course are the impact of environmental conditions upon collections, problems associated with various records media and formats, conservation and working with conservators, security, and emergency mitigation and response procedures. Each student is expected to prepare an archives emergency response plan. Pre-requisite: HIM 102.
Components: Lecture Attributes: Technical

HIM 216(3) Course ID:004309
Archives Studies: Automation & Electronic Records
This course is designed to provide students with an in-depth understanding of automation practices for archives. Topics covered in this course include database theory, design and development, as well as data field content and structure as they relate to archives automation. In addition to creating a complete archival catalog record, students will generate an automated accession record, description with appended image, and container list. Pre-requisite: HIM 102.
Components: Lecture Attributes: Technical

HIM 230(3) Course ID:004310
Museum Studies: Collections Care & Management
This course provides an in-depth analysis of the curatorial needs of museum collections. Topics covered include collection policies and development, accessioning, registration, preservation, exhibiting and ethical considerations regarding deaccessioning and collection sales. Pre-requisite: HIM 104.
Components: Lecture Attributes: Technical

HIM 232(3) Course ID:004311
Museum Studies: Conservation and Preservation
This course provides an in-depth analysis of the conservation and preservation issues confronting museum staff. Included in this course are the impact of environmental condition upon collections, problems associated with historic structures, artifact conservation and working with conservators, security, and emergency mitigation and response procedures. Each student is expected to prepare a museum emergency response plan. Pre-requisite: HIM 104.
Components: Lecture Attributes: Technical

HIM 234(3) Course ID:004312
Museum Studies: Exhibits
This course provides an extensive analysis of the issues presented in the display of a museum’s collections. Topics covered include exhibit planning, design, fabrication, installation, and interpretation. Ethical considerations and cultural sensitivity issues regarding the presentation of artifacts will also be addressed. Pre-requisite: HIM 104.
Components: Lecture Attributes: Technical

HIM 252(3) Course ID:004315
Electronic Records Management
This course provides in-depth coverage of the process by which electronic records are created and managed. Topics covered in the course include identification and analysis of electronic records for scheduling, and the use of database systems for monitoring compliance with scheduling and disposition of electronic and paper-based records. Students will be expected to design, develop, and implement a database for tracking records schedule compliance. Pre-requisite: HIM 106.
Components: Lecture Attributes: Technical
HIM 254(3) Course ID:004316
Records Reproduction & Imaging Systems
This course provides in-depth analysis of information reproduction systems for the management, preservation, and access of records. Students will master the appropriate use of a variety of image reproduction formats, quality control standards associated with each format, and the cost/benefit considerations appropriate for each image reproduction format. Pre-requisite: HIM 106.
Components: Lecture
Attributes: Technical

HIS 101(3) Course ID:004493
World Civilization I
Presents a multicultural survey of world cultures and global issues from ancient to medieval times. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 102(3) Course ID:004675
World Civilization II
Presents a multicultural survey of world cultures and contemporary global issues from 1600 to the present. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

HIS 103(3) Course ID:004532
Western Culture: Science and Technology
Surveys the interactions of science and technology with the social and cultural development of Western civilization from the Industrial Revolution. Emphasizes the values in scientific inquiry as compared with other kinds of inquiry and the importance of science and technology in modifying social organization and human expectations.
Components: Lecture
Attributes: AH - Arts and Humanities

HIS 104(3) Course ID:000880
A History of Europe Through the Mid-Seven- teenth 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-Seven- teenth Century to the Present
Surveys the development of European politics, society, and culture from the Age of Absolutism to the present. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

HIS 106(3) Course ID:000532
History of the United States Through 1865
Examines key political, economic, and social topics that have significantly influenced the American experience from the pre-colonial period through critical eras such as the Civil War era. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, Course Also Offered in Modules

HIS 107(3) Course ID:000542
History of the United States Since 1865
Examines key political, economic, and social topics that have significantly influenced the American experience from Reconstruction through the contemporary era. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, Course Also Offered in Modules

HIS 120(3) Course ID:000348
The World at War, 1939-45
Covers a global overview of the events of the Second World War, including consideration of the conflictual military, diplomatic, political, social, and economic dimensions.
Components: Lecture
Attributes: AH - Arts and Humanities, Course Also Offered in Modules

HIS 202(3) Course ID:000828
History of British People to the Restoration
Surveys the major political, social, economic, and cultural developments in British history from the pre-Roman era through the Stuart dynasty. Includes examination of such topics as the Norman conquest, the Plantagenet dynasty, the Hundred Years War, War of the Roses, the Tudors, the Monarchs, the Protestant Reformation, the Stuart Kings, Puritan Revolution, and the Restoration.
Components: Lecture
Attributes: AH - Arts and Humanities

HIS 203(3) Course ID:000516
History of the British People Since the Restoration
Covers the major political, social, economic, and cultural developments in British history from the Stuart period to the present. Includes examination of such topics as the Glorious Revolution, Imperial Wars, American Revolution, Napoleonic Wars, Industrial Revolution, Imperialism, World War I, Great Depression, World War II, Cold War, Decolonization, Post-War Britain, and the European Union.
Components: Lecture
Attributes: AH - Arts and Humanities

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.
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 207(3) Course ID:002220
History Modern Latin America, 1810 to Present
Covers the history of the Latin American nations focusing on their social, economic, political, and cultural development. Emphasizes the history of the independence movements, nation building, the struggle for modernization, dependency and the phenomenon of revolution since 1810.
Components: Lecture
Attributes: AH - Arts and Humanities

HIS 215(3) Course ID:015616
Historical Perspectives on Prisons and Police Work
Examines historical development of 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 conception 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 America 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 Basin and the Great Basin. Asesses the U.S. Indian policy development in relation to forced Indian removal, Americanization plan, educational assault on Indian children, termination policy, and sovereignty. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 240(3) Course ID:000439
History of Kentucky
Surveys the chief periods in Kentucky’s growth and development from 1750 to the present focusing on the social, economic, cultural, and political trends of each region.
Components: Lecture
Attributes: AH - Arts and Humanities

HIS 241(3) Course ID:000651
History of Islam and Middle East Peoples, 500-1250 A.D.
Surveys the origins and development of the Islamic civilization from the time of the Prophet Muhammad to 1250, with special emphasis on the role of the Arab, Iranian, and Turkic peoples.
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 248(3) Course ID:000654
History of Islam and Middle East Peoples, 1250 to the Present
Surveys the religion and institutions of the Islamic world in the Middle East with emphasis on the Mongol, Ottoman, Safavid, and Qing Empires. Includes the demise of these empires, the response of the Middle East peoples to European imperialism, and the development of the Middle East since 1250.
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 260(3) Course ID:000680
African American History to 1865
Studies the African-American experience through the Civil War. Examines African heritage, slavery, and growth of African American institutions.
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 261(3) Course ID:000693
African-American History 1865 - Present
Examines the African-American experience from Reconstruction to the present, with emphasis on the rise of segregation, the Civil Rights Movement, and race relations into the twenty-first century.
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 265(3) Course ID:000705
History of Sub-Saharan Africa
Surveys the major social, religious, cultural, economic, and political trends in Sub-Saharan African history since the 16th century. Includes the impact of the Atlantic slave trade, European imperialism, and 20th-century wars on Sub-Saharan Africa.
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 266(3) Course ID:005481
History of Islam and Middle East Peoples, 500-1250
Surveys the origins and development of the Islamic civilization from the time of the Prophet Muhammad to 1250, with special emphasis on the role of the Arab, Iranian, and Turkic peoples.
Components: Lecture
Attributes: AH - Arts and Humanities

HIS 267(3) Course ID:000670
History of Sub-Saharan Africa
Surveys the major social, religious, cultural, economic, and political trends in Sub-Saharan African history since the 16th century. Includes the impact of the Atlantic slave trade, European imperialism, and 20th-century wars on Sub-Saharan Africa.
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 268(3) Course ID:000680
African American History to 1865
Studies the African-American experience through the Civil War. Examines African heritage, slavery, and growth of African American institutions.
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 269(3) Course ID:000693
African-American History 1865 - Present
Examines the African-American experience from Reconstruction to the present, with emphasis on the rise of segregation, the Civil Rights Movement, and race relations into the twenty-first century.
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 270(3) Course ID:00705
History of Women in America
Surveys the history of American women, with particular emphasis on the mid-19th century to the present. Includes the major themes of family, work, social ideas about women, and feminism. Pre-requisite: HIS 109 or consent of instructor.
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 271(3) Course ID:005481
History of American Women to 1920
Emphasizes the fight for women’s suffrage to 1920.
Includes American women, immigrant women, the changing nature of the family and work, and societal ideas about women. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Other

HIS 267(3)  Course ID:005482
History of American Women from 1920
Emphasizes equal rights and the civil rights movements. Includes the rejection of feminism in the 1950s, and 1970s, the changing nature of the family, and work, and societal ideas about women. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

HIS 271(3)  Course ID:005262
Medieval Europe
Surveys European history from the fourth century through the fifteenth century. Lecture: 3 credits (45 contact hours). Pre-requisite: Sophomore standing.

Components: Lecture
Attributes: AH - Arts and Humanities

HIS 295(3)  Course ID:000749
East Asia to 1800
Presents a survey of Chinese, Japanese, and Korean history from the earliest times to 1800. Emphasizes political, economic, social, and intellectual developments.

Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 296(3)  Course ID:000753
History of Asia II
Surveys the major civilizations of Asia. Focuses on the key political, social and cultural developments of the major peoples from the beginning of Western influence in Asia to the present. Pre-requisite: Sophomore standing or consent of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 298(1 - 3)  Course ID:005221
Instructor Consent Required
Special Topics in History: (Topic)
Provides an in-depth study of a selected topic/area in History. Lecture: 1-3 credits (15-45 contact hours). Pre-requisite: Sophomore standing or Consent of Instructor.

Components: Lecture
Attributes: Other

HIS 101(1)  Course ID:016360
Early Civilizations
Presents a multicultural survey of world cultures and global issues from the birth of civilization to the Roman Republic. Lecture: 1 credit (15 contact hours).

Components: Lecture

HIS 102(1)  Course ID:016361
Ancient Empires and Cultures
Presents a multicultural survey of world cultures and global issues from the Roman Republic to the rise of Islam. Pre-requisite: HIS 1011. Lecture: 1 credit (15 contact hours).

Components: Lecture

HIS 103(1)  Course ID:016362
Rise of the Modern World
Presents a multicultural survey of world cultures and global issues from the rise of Islam through the Renaissance. Pre-requisite: HIS 1011 and HIS 1012. Lecture: 1 credit (15 contact hours).

Components: Lecture

HIS 102(1)  Course ID:016363
The Modern World 1500-1750
Presents a multicultural survey of world cultures and global issues from 1500 to 1750. Lecture: 1 credit (15 contact hours).

Components: Lecture

HIS 102(1)  Course ID:016364
Revolutions and Imperialism
Presents a multicultural survey of world cultures and global issues from 1750 to 1914. Pre-requisite: HIS 1021. Lecture: 1 credit (15 contact hours).

Components: Lecture

HIS 103(1)  Course ID:016365
World Wars and Globalization
Presents a survey of major world cultures and global issues from 1914 to the present. Pre-requisite: HIS 1021 and HIS 1022, Lecture: 1 credit (15 contact hours).

Components: Lecture

HIS 1081(0.75)  Course ID:006235
Colonial America
Examines key political, economic, and social topics from the pre-colonial period through settlement and colonization that have significantly influenced the American experience. Lecture: 0.75 credit (11.25 contact hours).

Components: Lecture

HIS 1082(0.75)  Course ID:006236
The Early Nationalist Period
Examines key political, economic, and social topics from the Revolution through the early national period that have significantly influenced the American experience. Lecture: 0.75 credit (11.25 contact hours).

Components: Lecture

HIS 1083(0.75)  Course ID:006237
Growth and Prosperity
Examines key political, economic, and social topics during the Antebellum period that have significantly influenced the American experience. Lecture: 0.75 credit (11.25 contact hours).

Components: Lecture

HIS 1084(0.75)  Course ID:006238
Sectionalism and Civil War
Examines key political, economic, and social topics from sectional conflict through the Civil War that have significantly influenced the American experience. Lecture: 0.75 credit (11.25 contact hours).

Components: Lecture

HIS 1091(0.75)  Course ID:006239
History of the United States through the Gilded Age
Examines key political, economic, and social topics from Reconstruction through the Gilded Age that have significantly influenced the American experience. Lecture: 0.75 credit (11.25 contact hours).

Components: Lecture

HIS 1092(0.75)  Course ID:006240
History of the United States from Imperialism through World War I
Examines key political, economic, and social topics from the Progressive Era through World I and the 1920s that have significantly influenced the American experience. Pre-requisite: HIS 1091, Lecture: 0.75 credit (11.25 contact hours).

Components: Lecture

HIS 1093(0.75)  Course ID:006241
History of the United States from the Twentieth to the Onset of the Cold War
Examines key political, economic, and social topics from the Depression and New Deal through World II that have significantly influenced the American experience. Pre-requisite: HIS 1092, Lecture: 0.75 credit (11.25 contact hours).

Components: Lecture

HIS 1094(0.75)  Course ID:006242
History of the United States during the Cold War to the Present
Examines key political, economic, and social topics from the Cold War and Civil Rights through the Rise of Conservatism that have significantly influenced the American experience. Pre-requisite: HIS 1093, Lecture: 0.75 credit (11.25 contact hours).

Components: Lecture

HIT 100(3)  Course ID:004260
Introduction to Health Information Technology
Includes history, organization, financing and delivery of health care services within a variety of settings. Explores the roles of a health information professional, an introduction to legal aspects of insurance billing and the role of the State Insurance Commission. Covers information on the generic components of the content, structure, collection, maintenance, and dissemination of health care data and how these components relate to record systems and documentation standards. Pre-requisite: Admission to the Health Information Technology Program or Medical Record Coding Specialist Certificate or Release of Information Data Specialist Certificate or special permission of the Program Coordinator and Computer Literacy. Pre-requisite Or Co-requisite: BIO 130 and BIO 137 (CLA 131 or AHS 115 or MIT 1032). Minimum grade of C. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

HIT 104(3)  Course ID:004262
Pathophysiology of Human Disease
An overview of pathophysiology content and teaching materials as they relate to the health information field. A review of disease terminology, pathology, clinical presentation, surgical and diagnostic procedures and treatment modalities. Pre-requisite: Admission to the Health Information Technology Program or Medical Record Coding Certificate Program or by special permission of the Program Coordinator and ((CLA 131 or AHS 115 or MIT 1032) and (BIO 137 with a grade of C or better). Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

HIT 105(4)  Course ID:007081
Pathophysiology / Pharmacology for Health Information Professionals
Provides an overview of pathophysiology content, review of disease terminology, and clinical presentation with the application of pharmacology to treat human diseases 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 1033). Minimum grade of C. Lecture: 4.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical

HIT 106(2)  Course ID:004263
Pharmacology for Health Information Professionals
Application of pharmacology to the treatment of human diseases and disorders as it relates to the field of health 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 1032) and (BIO 137 with a grade of C or better). Lecture: 2 credits (30 contact hours).

Components: Lecture
Attributes: Technical

HIT 109(4)  Course ID:007083
Clinical Classification Systems I
Applies current terminologies and coded 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 of C. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

HIT 110(2)  Course ID:004265
Legal & Ethical Issues in Health Information
Includes legal principles and issues that govern health information management and patient medical records. Covers ethical issues as they relate to the security and dissemination of patient health information and corporate compliance programs. Pre-requisite: Admission to the Health Information Technology Program or Medical Record Coding Specialist Certificate or Release of Information Data Specialist Certificate or 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

Course Descriptions

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HIT 112(3) Course ID:004266
Reimbursement Methodologies
Introduces the uses of coded data and health information reimbursement, leadership, motivation, and team building within the health information environment. Includes data collection, analyses, evidence-based care, implementation of quality improvement processes, and a review of regulatory and accreditation/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. Components: Lecture: 2 credits (30 contact hours).

HIT 114(2) Course ID:004267
Clinical Practicum I
Involves the clinical practice of medical record review and documentation within a healthcare information department. Provides observation and assists personnel in all areas of job responsibility within the Health Information Management (HIM) department. Provides observation and assists personnel in all areas of job responsibility within the HIM Department. Pre-requisite: Admission to the Health Information Technology Program or by special permission of the Program Coordinator. Practicum: 2.0 credits (90 contact hours).

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 data. Pre-requisite: Admission to the Health Information Technology Program or Medical Record Coding Specialist Certificate or by special permission of the Program Coordinator. Computer Literacy and [BIO 135 or BIO 137] and HIT 100 and HIT 110 and HIT 112. Minimum grade of "C". Pre-requisite Or Co-requisite: HIT 110 and HIT 112. Minimum grade of "C". Lecture: 2.5 credits (37.5 contact hours). Components: Laboratory, Lecture Attributes: Technical

HIT 202(3) Course ID:004269
Clinical Classification Systems II
Introduces current procedural terminology (CPT) coding system and the study of hospital based reimbursement systems. Use 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 Literacy and [BIO 135 and HIT 100 and HIT 110]. 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). Components: Laboratory, Lecture Attributes: Technical

HIT 204(2) Quality Assessment In Health Information
Principles of quality assessment as they relate to health information technology. Includes data collection, analysis, and presentation of quality improvement processes, and a review of regulatory and accreditation/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).

HIT 205(3) Course ID:007084
Quality Mgmt & PI - Health Info
Examines principles of performance improvement as it relates to health information technology. Includes data collection, analyses, evidence-based care, implementation of quality improvement processes, and a review of regulatory and accreditation/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).

HIT 206(2) Course ID:004271
Clinical Classification Systems III
Introduces the advanced application of clinical classification systems in the reimbursement for health care services. Includes in the course will be a review of fraud, abuse and regulatory agency requirements. 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. Components: Laboratory, Lecture Attributes: Technical

HIT 207(3) Course ID:007085
Clinical Classification Systems IV
Introduces the advanced application of clinical classification systems in the reimbursement for health care services and 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 110 and HIT 202. Minimum grade of "C". Lecture: 2.5 credits (30 contact hours). Lab: 1.0 credit (30 contact hours).

HIT 208(1) Course ID:004272
Clinical Coding Practicum
Introduces the student to the clinical practice of medical record coding procedures. Provides opportunity to observe professional and ethical behavior standards within a health information department. Concepts of coding and billing. Pre-requisite: HIT 110 and HIT 202. Minimum grade of "C". Lecture: 1.5 hours. Lab: 1.0 credit (30 contact hours).

HIT 210(2) Course ID:004273
Health Care Statistics
Use, collection, arrangement, presentation and verification of health care data. Fundamental concepts of descriptive statistics, data validity, reliability and the appropriate use and interpretation of health care statistics. Pre-requisite: Admission to the Health Information Technology Program or Medical Record Coding Certificate Program or by special permission of the Program Coordinator. Successful completion of HIT 105, HIT 110, HIT 112, HIT 202, HIT 206 with a grade of "C" or better. Practicum: 1.0 credits (90 contact hours).

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 health care statistics including the use, collection, arrangement, analysis, presentation and verification of health care data. Pre-requisite: HIT 109 and HIT 110. Minimum grade of "C". Lecture: 3 credits. Components: Lecture Attributes: Technical

HIT 212(2) Health Care Organization and Supervision
Course ID:004274
Course ID:007087
Clinical Practicum II
Introduces the student to the practical 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 (HIM) 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: Lecture Attributes: Technical

HIT 215(4) Course ID:007089
Selected Topics in Health Information Technology
Course ID:007090
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 Department. 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).

HIT 215(2) Course ID:007088
Clinical Practicum II
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).

HIT 215(1) Course ID:007099
Certificate in Health Information Technology
Course ID:007089
Clinical Practicum II
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).

HIT 215(1) Course ID:007098
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).

HIT 215(1) Course ID:007097
Clinical Practicum II
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).
### Course Descriptions

#### HMS Human Services

**HMS 101(3) Course ID:000901**

Human Services Survey

Examines community human service agencies regarding their organization, service delivery systems, staffing patterns, and funding sources. Explores the origin and development of the social welfare system as well as societal welfare policy. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

**HMS 102(3) Course ID:000777**

Values of Human Services in a Contemporary Society

Examines the values and ethics of human service professions. Encourages a personal philosophy of client intervention, including the development of a professional value base, achieved through the examination of major social problems and issues. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

**HMS 103(3) Course ID:000202**

Theories and Techniques in Human Services

Introduces philosophies, theories for intervention, and the problem-solving process. Emphasizes the development of a skill base in counseling techniques and client intervention. Enhances interpersonal relationships through knowledge of communication techniques. Provides activities in which the student will apply this knowledge and these skills. Pre-requisite: HMS101 and HMS 102 with a grade of “C” or better/Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

**HMS 104(3) Course ID:000867**

Group Dynamics for Human Services

Covers group techniques in clinical or agency settings based on various theoretical models with emphasis on the leadership role, phases of group development, and interaction within the group. Pre-requisite: HMS103 with a grade of “C” or better/Consent of Instructor: Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

**HMS 200(3) Course ID:000784**

Dynamics of Human Behavior

Includes an historic view of theories of personality development, maladaptive behavior, knowledge of treatment, techniques of adjustment and social implications. Pre-requisite: PSY 110 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

**HMS 210(3) Course ID:000617**

Drugs, Society, & Human Behavior

Covers the nature and progression of chemical abuse and dependency, and effects on the individual, family, and society. Includes strategies for prevention, intervention, and treatment. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

**HMS 211(3) Course ID:005583**

Introduction to Addictions

Provides an overview of approaches to understanding addictions with an emphasis on the biochemical-social model. Analyzes the etiology, progression, and processes involved in change. Pre-requisite: PSY 110 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

**HMS 212(3) Course ID: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
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
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. Examines 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 249(4) Course ID:016837**

Foundational Skills in Para-Professional Practice

Applies principles and skills previously learned in the Human Services courses to develop proficiency related to interviewing, data collection, assessment, goal development, contracting and documentation. Prepares students for work at the Bachelors in Social Work level. Pre-requisite: HMS 104. Lecture: 4.0 credits.

Components: Lecture
Attributes: Technical

**HMS 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: HMS 104 with a grade of “C” or better or Consent of Instructor. Lecture: 1.0 credit (15 contact hour); Clinical: 3.0 credits (180 contact hours).

Components: Lecture, Clinical
Attributes: Technical

**HMS 256(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 development of disabilities and mental retardation. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

**HMS 299(1 - 3) Course ID:000522**

Special Topics in Human Services: (Topic)

Provides an in-depth knowledge of a Human Services topic and allows students’ choices with/without instructor’s approval on an issue of instruction. Lecture: 1-3 credits (15-45 contact hours) Clinical: 1-3 credits (60-180 contact hours).

Components: Lecture
Attributes: Technical

### HNR Honors

**HNR 101(3) Course ID:004909**

Intro to Contemporary Thought

Introduces the development and impact of contemporary social, scientific, and philosophical thought from an interdisciplinary perspective. Gives attention to various historical and modern figures, relating their ideas and theories to our contemporary understanding of a variety of issues. Pre-requisite: Admission in the Honors program. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: All - Arts and Humanities

**HON Honors**

**HON 101(3) Course ID:000882**

The Ancient World

From Greek and Roman antiquity to the early Christian centuries: an interdisciplinary course in intellectual history. Readings vary at the discretion of the faculty. Pre-requisite: Membership in the Honors Program.

Components: Lecture
Attributes: All - 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.

Components: Lecture
Attributes: All - 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.

Components: Lecture
Attributes: All - Arts and Humanities

**HON 202(3) Course ID:000832**

The Contemporary World

The contemporary world: an interdisciplinary course in intellectual history. Readings vary at the discretion of the faculty. Pre-requisite: Membership in the Honors Program.

Components: Lecture
Attributes: All - 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 evacuation planning, and crisis communications. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

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| 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 and PHY 152) or Consent of Instructor. Lecture: 3.0 credits (45 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 |
| HOS 282(3) | Course ID:002370
Tourism Marketing
Examines how and why tourists make destination choices, and learns how to develop a strategic marketing system that emphasizes your destination's distinctive appeal. 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 |
| HOS 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: Consent of instructor.
Components: Lecture Attributes: Arts - Arts and Humanities |
| HRT 100(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: 3.0 credit hours.
Components: Lecture Attributes: Technical |
| HRT 102(3) | Course ID:001534
Introduction to Herbaceous Plants
Covers the care, culture and distinguishing characteristics of herbaceous plants including the scientific and common names of many of the most common herbaceous plants, including pests common to these plants. Lecture: 4 credits (60 contact hours).
Components: Lecture Attributes: Technical |
| HRT 106(4) | Course ID:001535
Introduction to Woody Plants
Covers the care, culture, and distinguishing characteristics of woody plants including the scientific and common names of many of the most common landscape woody plants. Examines pests that are common to these plants. Lecture: 4 credits (60 contact hours).
Components: Lecture Attributes: Technical |
| 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: Technical |
| HRT 100(3) | 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 (60 contact hours).
Components: Lecture Attributes: Technical |
| HRT 102(3) | Course ID:006965
Window Restoration and Repair
Presents the process for the removal, repair, and reinstalation 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 (60 contact hours).
Components: Lecture Attributes: Technical |
| HRT 106(4) | 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 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 |
| HRT 108(4) | Course ID:006967
Turf Management
Focuses on the identification, care, and culture of cool and warm season turf plants including how to calculate an area for seed or sod, identification of insects, weeds,
diseases and the proper control measures for each, and the development of a schedule for good turf maintenance and renovation for turf areas. Lecture: 4 credits (60 contact hours).

Components: Lecture
Attributes: Technical

HRT 130(3) Course ID:001539
Landscape Maintenance Lab
Introduces techniques for landscape management including pruning and planting techniques, safe working practices in the landscape and pest management. Lecture: 3 credits (45 contact hours).

Components: Laboratory
Attributes: Technical

HRT 131(2) Course ID:001540
Landscape Maintenance Lab
Applies knowledge of equipment, technology, and safety issues related to landscape maintenance, and the use of general math skills in computations used in the landscape including pesticides, fertilizers, and IPM systems used in maintaining the landscape, soils, and construction of various hard surface features. Laboratory: 2 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

HRT 150(3) Course ID:001543
Horticulture Business Management
This course introduces various career opportunities in a garden center and focuses on salesmanship and business practices utilized in this environment. Identification of characteristics, usage, and care of woody ornamentals, annual and perennial plants, as well as use and care information needed by the consumer are included. Assisting customers in choosing chemical pesticides and plant related products is discussed.

Components: Lecture

HRT 160(4) Course ID:005263
Retail Floral Design
Provides information and skills for successful employment in the floral design industry including business management, cost analysis and marketing, materials, containers, tools, and flowers. Lecture: 4 credits (60 contact hours).

Components: Lecture
Attributes: Technical

HRT 161(2) Course ID:005264
Retail Floral Design Lab
Applies design principles and small business operations. Uses fresh and artificial floral products to createdisplays. Laboratory: 2 credits (30 contact hours).

Components: Laboratory
Attributes: Technical

HRT 210(4) Course ID:001545
Landscape Design
Introduces the basic principles and practices of landscape design including the use of drawing equipment. Topics include the creation of design symbols and the development of a client needs and site analysis plan. Emphasis is placed on the ability to read landscape drawings and install plants from the design plans. Lecture: 4 credits (60 contact hours).

Components: Lecture
Attributes: Technical

HRT 240(4) Course ID:001547
Greenhouse Management Lab
Introduces the identification and function of a plant’s leaves, roots, and stems; as well as identifying major plant processes and sexual reproduction parts. The 16 essential elements and how they effect plant growth are discussed. Identification of diseases, insects and plant disorders in the greenhouse are included. Development of growing schedules for the following crops are completed: poinsettias, chrysanthemums, Easter lilies, bedding plants and hanging baskets. Injectors are calibrated using various fertilizers and chemical fertilizers. Pre-requisite: HRT 140

Components: Lecture
Attributes: Technical

HRT 241(2) Course ID:001548
Greenhouse Management Lab
This course is an introduction to the tools, equipment, procedures, supplies and safety issues related to greenhouse management. Other tasks are assigned as the season dictates. Pre-requisite: HRT 240

Components: Laboratory
Attributes: Technical

HSE 101(1) Course ID:002221
Introduction to Health Sciences
Provides students with information and career options about allied health and sciences programs including presentations by allied health practitioners. Students will research selected health profession/careers and health and sciences educational programs. Lecture: 1.0 credits (15 contact hours).

Components: Lecture
Attributes: Technical

HSM 100(3) Course ID:005518
Introduction to Homeland Security
Introduces the history and development of the US Department of Homeland Security. Examines the roles and functions of the components of Homeland Security and their relationships to state and local agencies. Investigates the history and career opportunities in homeland security. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

HSM 110(3) Course ID:005519
Introduction to Emergency Management
Introduces the field of emergency management and the incident command system, including the terminology and definitions used in emergency and disaster management. Examines four phases of emergency management and disaster planning: mitigation, response, recovery, and preparedness. Examines legal requirements, responsibilities, and laws pertaining to emergency management. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

HSM 225(3) Course ID:005780
Ethical and Legal Issues in Homeland Security
Examines the ethical and legal issues in the administration of Homeland Security and its efforts to combat terrorism. Examines the legal powers and ethical standards entrusted to the personnel empowered with the implementation of the issues of Homeland Security. Provides an opportunity to demonstrate knowledge of theoretical and legal complexities and dilemmas involved in the establishment and enactment of policies pertaining to Homeland Security. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

HSM 1003(1) Course ID:016173
Homeland Security Trends
Examines with greater depth the roles and functions of the components of Homeland Security and their relationships to state and local agencies with an emphasis on investigating current trends and career opportunities in the field of homeland security. Pre-requisite: HSM 1002. Lecture: 1.0 credits (1.0 contact hours).

Components: Lecture

HST 101(3) Course ID:007362
Health Care Basic Skills I
Introduces student to basic healthcare skills such as measuring and recording vital signs, assisting licensed personnel, observing and reporting patient conditions, collecting specimens and caring for the hygiene, comfort, and safety of patients in various settings.

Prepares the student for entry-level healthcare positions by incorporating certification for American Heart Association Cardiopulmonary Resuscitation (CPR). Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (45 contact hours).

Components: Laboratory, Lecture

HST 102(3) Course ID:007363
Health Care Delivery & Management
Introduces delivery and management of health care including professionalism, health care roles, health care delivery models, and types of health care coverage. Explores legal/ethical issues including HIPAA and confidentiality, electronic medical records and patient's rights as well as analysis of current trends in health care today. (Appropriate for any student considering entering the Allied Health or Nursing field). Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

HST 103(2) Course ID:007364
Health Care Communication
Introduces communication and its various forms as it exists in the health care field. Focuses on verbal, nonverbal, written and oral communication between members of the health team, patient, and caregivers through interdisciplinary approach. Examines each role with discussion from the perspective of the involved parties. Emphasizes diversity, sociocultural influences, and teamwork. Includes discussion of the media’s role in healthcare, as well as how health promotion campaigns may be implemented and managed. Appropriate for anyone interested in a career in allied health or nursing. Lecture: 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical

HST 104(3.5) Course ID:015849
Health Care Basic Skills I with Clinical
Introduces student to basic healthcare skills such as: measuring and recording vital signs, assisting licensed personnel, observing and reporting patient conditions, collecting specimens and caring for the hygiene, comfort, and safety of patients in various settings. Prepares the student for entry level healthcare positions by incorporating certification for American Heart Association Cardiopulmonary Resuscitation (CPR). Prepares student for the State Registered Nurse Aide examination. Note: Faculty and clinical sites must comply withapplicable Federal and Kentucky laws and regulations including but not limited to 42 USC 1396 and 807 KAR 1:450. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (45 contact hours). Clinical: 0.5 credits (23 contact hours).

Components: Clinical, Laboratory, Lecture
Attributes: Technical

HST 121(2) Course ID:007365
Pharmacology
Introduces students to the basics of pharmacology/ pharmaco kinetics, include terms used to describe various effects and reactions from drug usage. Will also introduce metric system and basic dosage calculations common to most fields of study within allied health and nursing. Lecture: 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical

HST 123(2) Course ID:007366
Clinical Pathophysiology
Explores an introduction to the nature of disease and its effect(s) on body systems. Provides a study of pathology and general health management of diseases and injuries across the lifespan. Includes topics on physiologic symptoms, physical and psychological reactions to diseases and injuries. Pre-requisite: BIO 137 or BIO 135. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

HST 123(2) Course ID:007367
Health Care Basic Skills II
Builds on basic health care skills by incorporating previous learning into more advanced concepts and
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, urinanalysis, and enemas, collecting blood for lab tests and preparing patients and instruments for surgery/treatment. Pre-requisite: HST 101. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (45 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

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: 000400
Peace Studies
This interdisciplinary course is intended as a general introduction to the nature, scope, and methodology of Peace Studies, with a view toward the future. It will explore the history of non-violent movements to effect social change, the role of women in the attainment of peace and protection of life, the tie between social justice and the environment, and the resolution of conflict between individuals, groups, societies, and nations. The course includes the study of activists such as Dr. Martin Luther King, Jr., Gandhi, and Dorothy Day. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HUM 133(3) Course ID: 000582
Introduction to Native American Literature
Introduces the study of the oral and written literature of Native American peoples, emphasizing the cultural and historical context in which it was composed. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities, SB - Social Behavior Science

HUM 140(3) Course ID: 000641
Introduction to Latino Literature
Analyzes literary texts and other artistic expressions to reveal aspects of Latino cultures such as identity, immigration, indigenous, relates literary developments and movements to the cultural, political, and religious experiences of Latinos in the U.S.; examines connections between minority writing and mainstream literary works. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HUM 150(3) Course ID: 000540
Introduction to African Literature
Presents a cross-cultural and historical approach to the oral and written works by major Black writers of Africa. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HUM 160(3) Course ID: 000710
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 howies of racism and religious intolerance occurred prior to and since the Holocaust; addresses the Holocaust in a comparative perspective to prior and subsequent acts of genocide in other countries. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HUM 202(3) Course ID: 000841
Survey of Appalachian Studies I
Presents an inter-disciplinary introduction to Appalachian history, economy, geography, politics, and culture primarily through exploration of texts about the region, including fiction, non-fiction, and poetry. Emphasizes geographic, Appalachian identity, works, values, and communication. May also include exploration of regional music, traditional arts, drama, photography, film, and, where applicable, community-based explorations of the Appalachian experience. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities, SB - Social Behavior Science

HUM 203(3) Course ID: 000518
Survey of Appalachian Studies II
Presents an inter-disciplinary introduction to Appalachian history, economy, geography, politics, and culture primarily through exploration of texts about the region, including fiction, non-fiction, and poetry. Emphasizes migration, economy, belief, expression, politics and government, and environment. May also include exploration of regional music, traditional arts, drama, photography, film, and, where applicable, community-based explorations of the Appalachian experience. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities, SB - Social Behavior Science

HUM 204(3) Course ID: 000812
Appalachian Seminar
Examines in detail one or more issues pertinent to the Appalachian region. Topics may include but are not limited to: cultural diversity, religious expression, politics and government, trends in Appalachian literature, or trends in regional sociological scholarship. Topics may vary from semester to semester. May be repeated once for credit with a different topic. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities, SB - Social Behavior Science

HUM 207(3) Course ID: 000704
American Seminar: Topic
Examines issues pertinent to American culture and identity through an interdisciplinary and multi-cultural approach. Includes topics such as social identity, religion, 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 credits 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: 000532
Historical Perspectives on Peace and War
Provides an introduction to the history of violence and peace movements. Examines the anthropological, political, cultural and technological forces contributing to the frequent occurrence of war through 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: 000533
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, philosophical perspectives, 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
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
Attributes: Cultural Studies, AH - Arts and Humanities

HUM 249(3) Course ID: 0005357
Seminar in Kentucky Literature
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
Attributes: Cultural Studies, AH - Arts and Humanities

HUM 250(3) Course ID: 0005923
Appalachian Literature Survey
Surveys significant texts about Appalachia from native populations and early European settlement to the end of the twentieth century. Emphasizes texts by writers living and working in the region, though perspectives from outside of the region may be examined. Focuses on historical, social, political, and cultural contexts, as well as analysis of literary forms and techniques. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HUM 251(3) Course ID: 0005924
Contemporary Appalachian Literature
Examines significant texts by Appalachian writers of the last twenty-five years. Emphasizes the development of contemporary Appalachian literary voice and identity. Examines connections or challenges to traditional Appalachian heritage and cultural identity. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HUM 281(3) Course ID: 000540
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
Attributes: Course Equivalents: ENG 281

HUM 282(3) Course ID: 000541
International Film Studies
Examines the history of cinema as a narrative art and a cultural document. Requires viewing of films outside of class. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Course Equivalents: ENG 282

ICT Industrial Chemical Technology
ICT 186(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, process, science, and technology. Includes review of basic chemistry, physics, and math related to industrial process and solving for
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 design and creation of training. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

IDL 110(3) Course ID:007202
Instructional Design I
Provides an introduction to instructional systems design through an exploration of the ADDIE model. Students will design, develop, deliver, and evaluate training content for instructor-led learning. Pre-requisite: ENG101 or consent of the instructor. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical

IDL 113(3) Course ID:007245
Introduction to Visual Communication for Learning
Introduces students to the elements of visual communication and storytelling for the purpose of learning and content promotion. 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 the instructor. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical

IDL 147(3) Course ID:007205
eLearning Development I: Rapid Authoring Tools
Provides an overview of eLearning development tools for the development of courses including learning activities. Particular emphasis will be given to rapid authoring tools. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical

IDL 203(3) Course ID:007247
Designing in Client Applications
Focuses on designing with common client software applications such as word processing, presentation, and spreadsheets. Students will learn to apply visual communication principles to these tools for the purpose of creating training materials and templates. Pre-requisite: CIT 130 and IDL 113 or consent of the instructor. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical

IDT 230(3) Course ID:000377
Health, Safety & Environmental Practices
Basic principles of industrial health and safety are discussed including accident and loss prevention, safety legislation, safety documents, safety management practices, health and safety hazards and control, safe workpractices, and fire / explosion hazards. Corresponding field exercises will be performed as appropriate with participating industry representatives. Environmental regulations and their ultimate impact on a chemical facility as regulations will be discussed. An environmental audit will be performed in the field at participating local industries. Lecture: 3.0 credit hours. Co-requisite: ICT 185, CHE 104 or 105, or consent of instructor.

Components: Lecture
Attributes: Technical
the interpretation of information in a project context. Pre-requireit: IDL 210 or consent of the instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

IDL 250(3) Course ID:007253
Instructional Design III
Explored advanced topics in instructional design. Methods for increasing learner engagement for eLearning courses will be shared. The students will take on the role of the instructional designer to design and develop advanced learning activities, including scenarios, learning games, and simulations. Pre-requireit: IDL 210 or consent of the instructor. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical

IDL 260(3) Course ID:007254
Competency Models and Curriculum Design
Provides an overview of competency models, the definition of competencies through job task analysis and the development of curriculum models that support a competency-based training plan. Pre-requireit: IDL 210 or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

IDL 290(3) Course ID:007255
Experiential Learning in Instructional Design
Perform entry-level Instructional Design and Learning Technology skills based on student’s chosen track. The learning plan will be discussed and agreed upon by the student, instructor, and site supervisor. Pre-requireit: Permission of the instructor. Co-Op: 3.0 credits (180 contact hours).

Components: Co-Op
Attributes: Technical

IDL 298(3) Course ID:007256
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 their search for employment. Pre-requireit: Consent of the instructor. Lab: 3.0 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

IDT Interactive Digital Technology

IDT 100(3) Course ID:005738
Fundamentals of Design
Introduces the basic drawing skills, elements and principles, color theory, terminology, and guidelines used to solve interactive design problems. Develops the ability and confidence to determine the appropriateness, feasibility, and success of a potential design. Explores the integration of typography and visual elements within format structures. Pre-requireit or Co-requireit: Computer literacy course. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

IDT 110(4) Course ID:005739
3D Modeling & Animation I
Applies basic design principles to the solution of visual problems using elements of 3D design. Includes 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-requireit: Computer literacy course. Lecture/Lab: 4 credits (90 contact hours).

Components: Lecture
Attributes: Technical

IDT 120(4) Course ID:005740
Digital Design Tools
Includes the basic skills, terminology, file formats and specifications of visual design within the digital realm through the use of industry standard vector and raster software. Requires file management and project planning. Pre-requireit or Co-requireit: Computer literacy course. Lecture/Lab 4 credits (90 contact hours).

Components: Lecture
Attributes: Technical

IDT 170(3) Course ID:005743
Project Strategy
Introduces marketing and design terms, information gathering, research, and data interpretation. Uses small groups to teach the challenges and rewards of creative collaboration. Includes group work plan, prioritize, and set goals for a team project. Pre-requireit or Co-requireit: Computer literacy course. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

IDT 210(3) Course ID:005744
3D Modeling & Animation II
Covers advanced 3D modeling practices for artists and designers working with animation. Provides deep knowledge of 3D modeling formats: Polygons, Nurbs, and Subdivision Surfaces. Explores issues of integrating animation into animation production and application of advanced troubleshooting skills. Pre-requireit: IDT 110 with grade of “C” or greater, or consent of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

IEC Interdisciplinary Early Childhood

IEC 101(3) Course ID:004130
Orientation to Early Childhood Education
Introduces information related to designing appropriate environments and curricula for infants, toddlers, and preschoolers. Explores the historical and current influences on early childhood education. Includes 20 hours of 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 ten (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: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

IEC 120(3) Course ID:004131
Health, Safety and Nutrition
Examines the components and skills necessary for maintaining a healthy and safe environment for young children. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

IEC 130(3) Course ID:004132
Early Childhood Development
Addresses the physical, language, cognitive, social and emotional development of children beginning with conception. Includes methods of observation that are practiced during field experiences. Includes 10 hours of 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 ethical and legal responsibilities for educators, and the role of the family in the process. Includes ten (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-requireit: IEC 101 or IEC 102 or IEC130 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
Curriculum
Introduces theoretical perspectives for curriculum in early childhood programs. Teaches the design of curricula and examines the societal factors that impact programming for children. Includes 10 hours of field experience, which may be waived by the IEC program coordinator for students concurrently enrolled in IEC 190 or IEC 291 Pre-requireit: 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
Applied Experiences in Early Childhood Education
Involves participation in supervised teaching experiences in early childhood settings. Covers observing, planning, implementing and assessing learning experiences based on developmentally appropriate practices. Any 100 level IEC course or permission of program coordinator.

Components: Laboratory, Lecture
Attributes: Technical

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 IEC program coordinator for students concurrently enrolled in IEC 190 or IEC 291. Pre-requireit: IEC 101 or IEC 102 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, reciprocal relationships, and empower families. Required: 10 hours of field experience. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

IEC 216(3) Course ID:004135
Literacy and Language in IEC
Presents the interaction of language therapy and instruction techniques and the resulting effect on language and literacy development. Includes five (5) hours of required field experience, which may be waived by theIEC program coordinator for students concurrently enrolled in IEC190 or IEC291. Pre-requireit: IEC 180 or permission of program coordinator. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

IEC 221(3) Course ID:004136
Creative Expressions in IEC
Addresses the role of creativity as it relates to the development of young children. Studies a variety of art, music, drama, and movement experiences that...
encourage creative expression in young children. Includes themepresentation of appropriate creative activities in a child-centered environment. Includes five (5) 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 180 or permission of program coordinator.

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.

Components: Lecture

Attributes: Technical

IEC 235(3) Course ID:004137 Introduction to Inclusive Education Presents the types of exceptionalities that occur in the development of children with an emphasis on state and federal laws that impact services. Introduces assessment, referral processes and sources, education plans, family service plans, center-based and home-based care, adaptations and assistive technology, and ethical considerations. Includes ten (10) hours of required field experience, which may be waived by the IEC program coordinator if the student is concurrently enrolled in IEC 190 or IEC 291. Pre-requisite: IEC180 or permission of IEC program coordinator. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: Technical

IEC 240(3) Course ID:004138 Administration of Early Childhood Education Focuses on the administrative responsibilities of creating and implementing education programs for children and their families with an emphasis on the administrative, organizational, and legal responsibilities inoperating early childhood programs. Includes ten (10) hours of field experience. 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 inoperating early childhood programs. Includes ten (10) hours of field experience. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: Technical

IEC 246(3) Course ID:004139 Sciences and Math in IEC Introduces the concepts and principles of science, social studies, mathematics, and how in learning experiences for young children. Includes five (5) hours of required field experience which may be waived by the IEC program coordinator if the student is concurrently enrolled in IEC 190 or IEC 291. Pre-requisite: IEC180 or permission of IEC program coordinator. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: Technical

IEC 250(3) Course ID:004089 School Age Child Care Provides the student with specialized knowledge, skills, and abilities for working with school age children. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: Technical

IEC 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 born 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 IEC program coordinator for students concurrently enrolled in IEC 190 or IEC 291. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: Technical

IEC 291(3) Course ID:004141 Instructor Consent Required

IEC Practicum/Cooperative Education Requires participation in supervised teaching experiences in early childhood settings where practical skills are applied. Includes observing, planning, implementing and assessing learning experiences based on developmentally appropriate practices. Required: One Hundred and Forty (180) field hours of experience. Pre-requisite: Program Coordinator’s Approval. Practicum: 3 credits (180 contact hours)/ratio 60:1.

Components: Practicum

Attributes: Technical

IEC 299(1-3) Course ID:004142 Department Consent Required

Special Topics in Early Childhood Education An in-depth knowledge of a selected topic in early childhood education is the goal of this course. The topical 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: 1-3 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 tocorporate, government offices, cultural activities and/or work assignments. Pre-requisite: IES 233. Practicum: 1-3 credits (60-180 contact hours).

Components: Practicum

IEE 248(3) Course ID:004139 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 ten (10) hours of required field experience. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: Technical

IEE 246(3) Course ID:004139 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 ten (10) hours of required field experience. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: Technical

IEE 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

IEE 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 born 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 IEC program coordinator for students concurrently enrolled in IEC 190 or IEC 291. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: Technical
combination circuits. Lecture/Lab: 6.0 credits (120 contact hours).

Components: Lecture

Attributes: Course Also Offered in Modules, Technical

IET 203(5) Course ID:007172

Programmable Logic Controllers
Introduces Programmable Logic Controllers (PLC) and elements needed for an automated industrial control system. Introduces memory and project organization within a PLC and provides instruction in basic numbering systems, computer and PLC terminology. Introduces PLC control functions, program structures, language standards, wiring and troubleshooting methods, as well as, real world communications. Requires the student to program a PLC which may include a combination of ladder logic, structured text, sequential function chart and/or function block languages. Includes various protocols of industrial communications used between PLC controlled machines, PLC to PLC, PLC to computer, and computer to computer. Lecture/Lab: 5.0 credits (109.5 contact hours).

Components: Lecture

Attributes: Course Also Offered in Modules, Technical

IET 205(4) Course ID:007167

Robot Maintenance
Introduces robotics in regard to industrial robotic safety standards, applications, types of classes for industrial robots, basic system components, robotic motion concepts, key programming techniques, definitions and the common terms associated with computer integrated manufacturing (CIM) as it relates to robotic cells. Instructs students on the mastering concepts of preventive maintenance techniques required for a robot and another 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 an PLC-controlled, automated system. Lecture: 4.0 credits (82.5 contact hours).

Components: Lecture

Attributes: Course Also Offered in Modules, Technical

IET 206(5) Course ID:007161

Controls and Instrumentation
Covers the diversity of control devices including: theory of operation, applications in automation control and troubleshooting and repair. Introduces identification, installation, replacement, and troubleshooting of automation controller circuit boards and modules. Includes the installation, maintenance and troubleshooting of common input devices. Provides for discussion of methods of motor controls including on-off, proportional, integral, and derivative including PID loop tuning and quality. Covers automation output devices including AC/DC and servo motors, variable speed drives, relays, motor starters and sizing of components for various applications. Lecture/Lab: 5.0 credits (105 contact hours).

Components: Lecture

Attributes: Course Also Offered in Modules, Technical

IET 1021(0.7) Course ID:007135

Basic Preventive Maintenance
Introduces how routine work is done to keep equipment in good working order and to optimize its efficiency and productivity. Addresses regular routine cleaning, lubricating, testing, checking for wear and tear and eventually replacing components to avoid breakdown. Lecture/Lab: 0.7 credits (15 contact hours).

Components: Lecture

IET 1022(1.3) Course ID:007136

Advanced Technologies
Introduces various types and styles of predictive and preventive maintenance components, principles, endpractices used in industrial applications. Lecture/Lab: 1.3 credits (25.5 contact hours).

Components: Lecture

IET 1041(0.9) Course ID:007138

Drafting Fundamentals
Introduces the fundamental information in drafting necessary to retrieve read, manipulate and understand mechanical part print. Requires student to be able to identify different types of prints as well as being able to analyze them. Lecture/Lab: 0.9 credits (16.5 contact hours).

Components: Lecture

IET 1042(1.1) Course ID:007139

Orthographic Interpretation
Introduces the learning to recognize, identify, describe, and relate the components used in schematics, alongside their symbols and connectors, to describe electrical, electronics, pneumatics, hydraulics, and piping circuits, as well as welding and joining symbols interpretation. Lecture/Lab: 1.1 credits (21 contact hours).

Components: Lecture

IET 1071(1) Course ID:007141

Intro to Basic Electricity
Introduces the various elements of basic electricity including the identification of electrical symbols as well as interpretation of schematics, cross referencing prints, tracing circuits, interpreting sequential function charts, line drawings and time charts. Lecture/Lab: 1.0 credit (21 contact hours).

Components: Lecture

IET 1072(0.3) Course ID:007142

Instruments
Introduces electrical measurement instruments, including digital and analog multimeters, clamp-on ammeters, microameters, and the oscilloscope. Requires hands-on lab time spent with each device type. Emphasizes safe measuring techniques. Covers additional devices such as pressure gauges, chart recorders, heat sensors and chain stretch monitor. Lecture/Lab: 0.3 credits (7.5 contact hours).

Components: Lecture

IET 1073(0.7) Course ID:007143

Control Circuits & Components
Concentrates on control logic components and circuit function. Examines combinational and sequential ladderlogic designs with great attention to reliability of function. Requires construction of various circuits that demonstrate key component functionality concepts. Requires troubleshooting using analytical techniques, multimeters, chart recorders, and oscilloscopes. Lecture/Lab: 1.0 credit (22.5 contact hours).

Components: Lecture

IET 1074(0.7) Course ID:007144

Solid State Devices
Introduces solid state devices and applications. Covers semiconductor theory and operational characteristics of devices such as the diode, bipolar junction transistor (BJT) and field effect transistor (FET). Examines the basic DC power supply in the lab. Addresses concepts such as polarity, biasing, rectification and amplification. Includes discussion of camera-type vision systems, barcode readers and laser etchers. Lecture/Lab: 0.7 credits (16.5 contact hours).

Components: Lecture

IET 1081(0.5) Course ID:007146

Basic Mechanical Power Systems
Introduces the basic concepts of mechanical power transmission. Addresses the principles of power transmission, calculations of speed and force and how they affect a power transmission systems ability to perform work. Emphasizes the basics of mechanical drawing, safe work practices for working around machinery, common hand tools associated with maintenance work and some of the more common terms and definitions. Lecture: 0.5 credits (7.5 contact hours).

Components: Lecture

IET 1082(0.3) Course ID:007147

Flexible Drives
Introduces various types and styles of flexible belt and chain drives, including V-belts, chains, sprockets, and components. Lecture/Lab: 0.3 credit (7.5 contact hours).

Components: Lecture

IET 1083(2.2) Course ID:007148

Coupling and Alignment
Introduces types and functions of couplings used in industrial power transmissions, including how to install, align, and maintain shaft couplings. Lecture/Lab: 2.2 credits (55.5 contact hours).

Components: Lecture

IET 1084(1.1) Course ID:007149

Bearings, Shafts, and Seals
Introduces basic types and functions of bearings, shafts and seals found on mechanical drive systems commonly used in industry. Lecture/Lab: 1.1 credits (24 contact hours).

Components: Lecture

IET 1085(0.2) Course ID:007150

Brakes and Clutches
Introduces various types and styles of braking systems and clutch components used in industrial applications. Lecture/Lab: 0.2 credits (4.5 contact hours).

Components: Lecture

IET 1086(0.7) Course ID:007151

Gears and Cams
Introduces various types and styles of gears and cam follower components used in industrial applications. Lecture/Lab: 0.7 credits (13.5 contact hours).

Components: Lecture

IET 1089(0.7) Course ID:007153

Basic OSHA Safety
Introduces OSHA and the OSHA regulations that apply to the auto manufacturing industry. Lecture: 0.7 credits (12 contact hours).

Components: Lecture

IET 1092(0.4) Course ID:007154

Hoists and Cranes
Introduces the basic concepts and safety rules and issues related to the use of overhead cranes and hoists. Lecture/Lab: 0.4 credit (6 contact hours).

Components: Lecture

IET 1093(1.2) Course ID:007155

Rigging Awareness & Fundamentals
Introduces the basic concepts and safety rules and issues related to the use of rigging equipment, attachment components, calculating slings 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 suddenness 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), alongwith 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: 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).

**Course Descriptions**

**IET 1201(0.1)** Course ID:007187

**Intro to Machining Operations**
Brings machinists and their 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 the use 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 lathes used by multi-skilled industrial maintenance technicians. Lecture/Lab: 0.6 credits (16.5 contact hours).

**Components: Lecture**

**IET 1293(0.8)** Course ID:007189

**Milling**
Introduces the use 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 used by multi-skilled industrial maintenance technicians. Lecture/Lab: 0.8 credits (22.5 contact hours).

**Components: Lecture**

**IET 1294(0.5)** Course ID:007190

**Drill Press**
Introduces the use 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 used by multi-skilled industrial maintenance technicians. Lecture/Lab: 0.5 credits (13.5 contact hours).

**Components: Lecture**

**IET 1295(0.4)** Course ID:007191

**Saws**
Introduces the use 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 used by multi-skilled industrial maintenance technicians. Lecture/Lab: 0.4 credits (10.5 contact hours).

**Components: Lecture**

**IET 1296(0.7)** Course ID:007192

**Hand and Power Tools**
Introduces the 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 results of not being safely conscious in the workplace. Teaches the students in basic safety culture and prepares them to participate in, conduct, and lead safety walk-throughs. The student to Kiken Yoshi Training (KY) Jr. Hazard Prevention Training. Prepares the student to conduct risk assessment activities, construct safetyboards, and formulate individual safety commitments. Lecture: 1.0 credit (15 contact hours).

**Components: Lecture**

**IET 1302(1)** Course ID:016098

**5S**
Introduces the fundamental 5S process involving the five steps progression described by the Japanese words: Seiri, Seton, Seito, Seiketsu, and Shitsuke. Teaches 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. Fosters the development of the workplace organization in which safety and efficiency are always paramount. Lecture: 1.0 credit (15 contact hours).

**Components: Lecture**

**IET 1303(1)** Course ID:016099

**Total Production Management**
Instructs the student in the concepts of value-added product, maintenance value-added product, value-added workand necessary work. Explains the process of how Toyota earns profit. Demonstrates the Toyota Production System for Maintenance using the House framework. Describes and explains the three Ms and the seven Musts and their relationship to maintenance and production. Lecture: 1.0 credit (15 contact hours).

**Components: Lecture**

**IET 1304(1)** Course ID:016100

**Problem Solving**
Introduces the Toyota Business Practice model, the 8 step Toyota Problem Solving method, and the 10 part Toyota Drive and Dedication model. Teaches the students to clarify the problem, break it down to analyze it, set achievable targets, analyze the root cause, develop countermeasures, evaluate results and the process, standardize the results, and learn from failures. Fosters the development of a customer first philosophy involving all the stakeholders. Lecture: 1.0 credit (15 contact hours).

**Components: Lecture**

**IET 1305(1)** Course ID:016101

**Maintenance Reliability**
Introduces the Toyota Maintenance Reliability training. Describes the difference between corrective maintenance and preventive maintenance. Breaks down proactive maintenance and the underlying tools and constituent processes. Teaches the students in the various individual units in a system and the steps inevaluating failure mode risks and countermeasures. Lecture: 1.0 credit (15 contact hours).

**Components: Lecture**

**IET 2011(1)** Course ID:007179

**Electrohydraulics/Pneumatics Fundamentals**
Explains the fundamental concepts of fluid power. Covers the principles of fluid power, calculations of physical properties of fluids and their ability to do work. Introduces the various fluid power components, symbols, circuits, and the troubleshooting of fluid power components and systems with an emphasis on safety. Lecture: 1.0 credit (15 contact hours).

**Components: Lecture**

**IET 2012(0.7)** Course ID:007178

**Reservoirs, Fluids, Filters**
Introduces functions of hydraulic and pneumatic reservoirs and reservoir components. Addresses properties and requirements for fluids, as well as how filters are used to maintain cleanliness in fluid power systems. Lecture/Lab: 0.7 credits (13.5 contact hours).

**Components: Lecture**

**IET 2013(0.4)** Course ID:007177

**Hose, Piping, and Tubing**
Introduces various types of conductors that carry fluid and power in the system. Focuses on fittings, hose, and tubing used in fluid power systems. Lecture/Lab: 0.4 credits (9 contact hours).

**Components: Lecture**

**IET 2014(0.8)** Course ID:007176

**Pumps, Actuators, Accumulators**
Introduces the different types of pumps, actuators and accumulators used in fluid power systems which can flow, change fluid pressure into mechanical power and deives that store energy in the system. Lecture/Lab: 0.8 credits (16.5 contact hours).

**Components: Lecture**

**IET 2015(1.3)** Course ID:007175

**Valves**
Explains hydraulic and pneumatic directional control, pressure control and flow control valves. Lecture/Lab: 1.3 credits (28.5 contact hours).

**Components: Lecture**

**IET 2016(0.9)** Course ID:007174

**Electrohydraulics/Pneumatics**
Introduces the fundamentals of electro-fluid power, including basic electrical principles, basic fluid power principles, electro-fluid power limit devices, common electro-fluid power troubleshooting principles and practices. Lecture/Lab: 0.9 credits (18 contact hours).

**Components: Lecture**

**IET 2017(0.9)** Course ID:007173

**Systems Troubleshooting**
Introduces troubleshooting of hydraulic and pneumatic systems, including tracing out systems, isolating problems, safety testing and inspecting systems that use combination circuits and combination electro-fluid/hydraulic/pneumatic systems. Lecture/Lab: 0.9 credits (19.5 contact hours).

**Components: Lecture**

**IET 2031(0.6)** Course ID:007171

**Introduction to PLCs**
Introduces various elements of basic PLCs including the identification of programmable logic control systems as well as an overview of PLC system architectures. Provides instruction in basic numbering systems, computer terminology, PLC functions, program structures, language standards, point addressing basics. Lecture: 0.6 credits (9 contact hours).

**Components: Lecture**

**IET 2032(1.4)** Course ID:007170

**Hardware & Software**
Introduces memory and project organization within a PLC process, the installation, wiring and configuration of I/O modules, as well as how to start a new project. Lecture/Lab: 1.4 credits (31.5 contact hours).

**Components: Lecture**

**IET 2033(1.5)** Course ID:007169

**Programming PLCs**
Introduces various elements of programming PLCs. Addresses the basic elements of PLC programming and routines. Requires student to program using ladder logic, structured text, sequential function chart, and function block languages. Lecture/Lab: 1.5 credits (34.5 contact hours).

**Components: Lecture**

**IET 2034(1.5)** Course ID:007168

**PLC Communication**
Introduces various elements of industrial communications using PLCs. Addresses common types of control communications in an industrial environment. Includes discussion of PLC addressing used in communications. Lecture/Lab: 1.5 credits (34.5 contact hours).

**Components: Lecture**

**IET 2051(0.8)** Course ID:007166

**Introduction to Robotics**
Introduces robots 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: 0.8 credits (10.5 contact hours).

**Components: Lecture**

**IET 2052(1.5)** Course ID:007165

**Programming/Editing Robots**
Introduces robotic systems and programming. Reviews robotic system application, automated system safety, robotic system composition, robotic motion control, fundamental programming commands, and program editing. Emphasizes the fundamentals of robotics. Teaches 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**
IEX 295(3) Course ID:001577
Attributes: Technical
Components: Laborator
Principles of Informatics
Introduces students to the concepts associated with an
information-centric world, information systems, and
includles the definition of information and how it is communicated.
Pre-requisite: Permission of Instructor. Lecture: 3 credits (45 contact hours).

IEX 291(1) Course ID:001575
Components: Laboratory
Instructor Consent Required
This is a course designed for the student who has
demonstrated specific needs. Pre-requisite: Permission of Instructor.
Components: Laboratory
Attributes: Technical

IEX 295(0.6) Course ID:007162
Integration of PLCs & Robots
Introduces concepts associated with integrating robotic applications in a PLC-controlled, automated system.
Inclueds 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 eachapplication. Stresses the programming concepts that support optimizing cycle time. Lecture/Lab: 0.6 credits (15 contact hours).

IEX 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

IEX 297(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(0.6) Course ID:007157
Components: Laboratory
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

Add Text
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 the 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, including creative, 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 photo editing and manipulation samples. Pre-requisite: IMD 100 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 133(3) Course ID: 005046
Beginning Web Design
Introduces the creation and publication of a web site and covers extensible hypertext markup language (XHTML) and introductory cascading style sheets (CSS). Covers hand-coding for web design, along with the incorporation of graphics into web sites and publishing. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 180(3) Course ID: 004786
Intermediate Web Design
Utilizes content management systems (CMS) for web design and focuses on current web development. Instructs students in basic CMS setup, administration, and theme design. Utilizes HTML, CSS, and photo-editing software within a CMS. Identifies fundamentals including website layout, navigation, font usage, color schemes, site architecture, with emphasis on creating websites that effectively communicate the desired content for employers and clients. Pre-requisite: IMD 133 OR Consent of Instructor. Lecture: 3.0 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. Instructs students in practical aspects of graphics such as color, ray tracing, rasterization, shading, mapping, light, and shadow. Pre-requisite: CIT 105 OR IMD 100 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Course Equivalents: CIT 221
Attributes: Technical

IMD 222(3) Course ID: 016266
3D Modeling for Video Games
verb. 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
Attributes: Technical

IMD 223(3) Course ID: 016267
3D Animation for Video Games
Exposes students to the specialized process of animating 3D assets for gaming applications. Familiarizes students with animating both organic and inorganic assets, lighting scenes, rendering and producing cut-scenes, and preparing character assets for in-game motion. Allows students to acquire the necessary skills and techniques to integrate audio with their animations using basic sound-engineering software and processes. Pre-requisite: IMD 126 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
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 off-governmental document design projects. Emphasizes raster image creation, editing, and preparation for output. Offset printing processes, color separations, spot color usage and preparation, vector graphic usage, font usage and standards, PDF document creation and preparation, and advanced desktop publishing techniques. Pre-requisite: IMD 126 and IMD 127 and IMD 128. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 228(3) Course ID: 006833
Advanced Photoshop
Introduces advanced techniques for manipulating and editing raster (photo or pixel-based) graphics using industry-standard application(s). Examines new software features, advanced methods for file optimization and color correction, making complex selections, and combining multiple images to create works of art, as well as development of a professional portfolio of raster art and photo editing and manipulation samples. Pre-requisite: IMD 115 and IMD 129. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 229(3) Course ID: 006885
Advanced Illustrator
Introduces advanced techniques for the creation of vector-based (vector-geometry-based) artwork, including techniques for high-end illustrative and artistic projects. Emphasizes working with painterly and Naturalistic brushes, photo-realistic vector-based image creation, advanced gradient mesh usage, advanced 3D techniques, integration with Adobe Flash, advanced workflow procedures, and other techniques intended for intermediate to advanced Adobe Illustrator users. Pre-requisite: IMD 127. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 230(3) Course ID: 004793
Advanced Web Design
Explores existing and emerging web technologies through the role of web designers. Covers HTML and CSS and content management systems (CMS) for responsive web design. Instructs students in responsive website development using HTML, CSS and photo-editing software. Students will conclude the course via the creation of a comprehensive, dynamic, responsive website utilizing current technologies. Pre-requisite: IMD 180 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 232(3) Course ID: 004794
Web Design with Adobe Dreamweaver
Utilizes an advanced web authoring software application for design and development. Uses a professional WYSIWYG (what-you-see-is-what-you-get) editor to develop and create web pages, automate production, and manage and maintain entire websites. Builds XHTML, CSS, and web development knowledge to customize features and integrate applications. Pre-requisite: IMD 133 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 235(3) Course ID: 004795
Advanced Word Processing
Introduces students to the current word processing software from intermediate skills through advanced abilities. 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 from various applications. Emphasis will be on mastering the software for optimal use. Pre-requisite: IMD 210 or CIT 130, or equivalent skills. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 240(3) Course ID: 004796
Multimedia Development for the Web
Introduces students to the design and delivery of interactive and media-rich websites using: professional, industry-standard software and web development technologies. Covers creating and integrating animation into web design, along with developing increasing interactivity and adding audio and video into a website. Covers animating and integration with other web development applications. Pre-requisite: IMD 133 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 250(3) Course ID: 005050
Digital Video Editing I
Covers the essentials of digital video within cinematic arts, including logging, capturing, editing, and basiccompositing. Students will capture and edit digital video using industry-standard desktop video software and the Internet for use in entertainment, documentary films, commercials, and newscasts. Students will learn to storyboard, plan, and produce a digital video project from conception to final packaging. Pre-requisite: IMD 100 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 255(3) Course ID: 007327
Digital Video Editing II
Covers advanced techniques within cinematic arts and editing such as multi-cam editing, color correction, advanced compositing, basic audio editing and production, alpha channels, and special effects. Building on Digital Video Editing I, students will also focus on creating storyboards, quick workflows, and trim editing using an industry-standard software program. Increased levels of pacing, timing, continuity, and visual aesthetics are emphasized. Students will shoot and edit their own video footage in this course. Cameras will be provided. Pre-requisite: IMD 250 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 258(3) Course ID: 007328
Visual Effects for Video
Covers the creation of visual effects in cinematic arts including basic animation with text and objects and 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 stabilization, and digital video simulation. Projects will be exported and packaged for the web and DVD. Pre-requisite: IMD 250 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

IMD 270(3) Course ID: 005021
Professional Practices
Designed to assist students develop strategies for entering the Information Management & Design
profession by_btning and refining portfolios and creating correspondence to meet professional standards, designing resumes, and other self-promotional materials, developing a job search strategy, practicing interview techniques, and professional presentations. Pre-requisite: sophomore status & preparing for job search. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

IMD 271(1 - 3) Course ID:004797
Instructor Consent Required, Internship Requires a minimum of 40 clock hours per credit hour of on-the-job experience to include a learning plan agreed upon by the student, instructor, and site supervisor. Pre-requisite: Consent of Instructor, 2.0 GPA, IMD 270 and the completion of 9 additional credit hours of IMD course work. Practicum: 1.0 - 3.0 credits (40-120 contact hours).

Components: Practicum Attributes: Technical

IMD 272(3) Course ID:016268
Game Design Theory Introduces students to the experience-oriented standards and techniques of gaming on a digital platform. Includes hands-on conceptualization and writing of a game created by the student. Emphasizes creatively, player experiences and motivations, styles of play, types of games, character creation, world creation, and story-driven narrative within a video game. Requires students to write a complete and industry-quality GameDesign Document as a final project in this course which can serve as the basis for a fully-produced, playable video game in CIT/IMD273. Pre-requisite: CIT124 OR IMD 124 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Course Equivalents: CIT 272 Attributes: Technical

IMD 273(3) Course ID:016269
Game Production Provides students with the opportunity to produce a fully playable 3D video game using assets and materials created in previous courses; employs an industry-standard game engine to meld 3D content, audio, narrative, character, and environment into a professional and enjoyable video game experience. Pre-requisite: ((CIT 222 OR IMD 222) AND (CIT 272 OR IMD 272)) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Course Equivalents: CIT 273 Attributes: Technical

IMD 274(3) Course ID:016270
Seminar in Game Development Encompasses the three phases of game design and development: conception, creation, and marketing. This project-oriented seminar. Requires participation in class presentations, individual and group projects, development of a game, and a portfolio. Pre-requisite: ((CIT 223 OR IMD 223) AND (CIT 273 OR IMD 273)) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Course Equivalents: CIT 274 Attributes: Technical

IMD 275(3) Course ID:004798
Information Management and Communications Introduces management principles and techniques as they apply to various types of businesses. Includes research techniques for information management, team concepts, personnel management, communications and business plans. Explores concepts within freelance, small business, and corporate entities. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

IMD 277(3) Course ID:008837
Typography Explores the use of typography in the context of graphic design and explores the importance of type as a tool for visual problem solving and communication. Explores origins of typography, font usage, the anatomy and different kinds of type, software used for type manipulation, and how basic principles and elements of design (color, hierarchy, form, rhythm, etc.) are applied to typography. Requires the development of portfolio offindividual

typeography-based designs. Pre-requisite: (IMD 115 and IMD 126 and IMD 127 and IMD 128) or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

IMD 280(3) Course ID:004799
Portfolio Practicum: Graphic Design Provides an opportunity to assemble a comprehensive graphic design portfolio using skills learned within the IMD Graphic Design core courses, which will assess students overall graphic design skills. Provides IMD students with a professional design portfolio to aid in the search for employment. Provides them the capstone for students choosing the graphics option. Uses presentation, vector, raster, and desktop publishing software to create design-intensive portfolio pieces. Pre-requisite: (IMD 127 and IMD 128 and IMD 185 and IMD 226) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

IMD 290(3) Course ID:005779
Photography Teaches students basic photography principles and skills to compose technically proficient photographs. Emphasis is on basic camera operations, with exploration of film speeds, apertures, and shutter speeds. Explores composition and elements of lighting. Uses slide lectures, a brief review of contemporary photography to acquaint students with past and current photography. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

IMD 292(3) Course ID:005215
Portfolio Practicum: Web Design Requires a comprehensive web site design portfolio using skills learned in the IMD Web Design core courses to assess students overall skills learned in the web design option. Provides students with a professional design portfolio to aid in the search for employment. Uses industry-standard design software programs and dynamic scripting languages to assemble the comprehensive design portfolio. Pre-requisite: IMD 133, 180 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

IMD 294(3) Course ID:005799
Seminar IMD Technologies Includes research, study, and discussion of a current or emerging topic, or trend in information management and technology design. May be repeated with different topic for a maximum of 6 credit hours Pre-requisite: IMD 100 or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

IMD 299(1 - 3) Course ID:004800
Instructor Consent Required Selected Topics in Information Management and Design This course is designed to expand course offerings as new technology is developed, as well as consider contemporary and/or emerging trends in information management and design. Topics may vary from semester to semester 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 Attributes: Technical

EMG 100(7) Course ID:004294
Radiography I Emphasizes the historical perspective, professional ethics, introductory imaging, x-ray tube, patient management, and the role of the radiographer as a member of the health care team. Applies the principles of photon anatomy to the study of fundamental radiographic procedures (exposure factors and patient positioning) used for different age groups. Covers procedures of the chest, abdomen, extremities, shoulder girdle, bony thorax, and pelvic girdle. Pre-requisite: Admission to the Radiography Program and BIO 139 with a minimum grade of C. Co-requisite: IMD 101. Lecture: 6.0 credits (90 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture Attributes: Technical

EMG 101(4) Course ID:004295
Clinical I Provides experience in equipment operation, patient care, technical factors for radiographic exposures, and positioning patients accurately for radiographic exams. Pre-requisite: Admission to the Radiography Program and BIO 139 with a minimum grade of C. Co-requisite: IMD 101. Clinical: 4.0 credits (240 contact hours).

Components: Clinical Attributes: Technical

EMG 102(4) 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: BIO137 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

EMG 108(4) Course ID:005606
Radiographic Procedures I Presents the principles of human anatomy as applied to fundamental radiographic procedures. Included are exposure factors and patient positioning relative to different age groups and 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

EMG 109(1) Course ID:005607
Clinical Practice I Provides structured clinical experience through sequential competency-based assignments that focus on theoretical and lower extremities. 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

EMG 110(7) Course ID:004296
Radiography II Emphasizes radiographic imaging, related technical factors, and accessories. Applies human anatomy to basic radiographic procedures. Includes study of tomography and procedures used for the basic and complex structures, vertebral column, alimentary canal, and the biliary and urinary systems. Considers special radiographic examinations and equipment. Pre-requisite: EMG 100 with a minimum grade of C. Pre-requisite: EMG 111 Lecture: 6.0 credits (90 contact hours). Laboratory: 1.0...
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: 6.0 credits (180 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

Course Descriptions

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

Course ID: 004297

Image Production & Acquisition
Provides knowledge-base related to image production and acquisition, and practical experience with digital imaging systems. Pre-requisite: (IMG 104 and IMG 106 and IMG 108 and IMG 109) with a minimum grade of C. Lecture: 1.0 credit (15 contact hours), Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

Course ID: 005608

Advanced Patient Care in Radiography
Examines the basics 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

Course ID: 005609

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

Course ID: 005610

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

Course ID: 005611

Clinical III
Continues IMG 111 to provide experience with equipment operation application of patient care, set-up of correct technical factors for radiographic exposures, and positioning patients accurately for radiographic exams. Provides opportunities for more responsibility and independence with previously learned procedures. Requires performance of a critical evaluation of finished examinations and patient care for a discussion of professional and legal 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

Course ID: 004298

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. Lecture: 1.0 credit (15 contact hours), Lab: 1.0 credit (30 contact hours).

Components: Lecture
Attributes: Technical

Course ID: 005618

Pathology for Advanced Medical Imaging Modalities
Examines diseases commonly diagnosable via computed tomography and magnetic resonance imaging (CT/MRI) procedures including patient care, image acquisition, and cross sectional anatomy. Pre-requisite: (IMG 201 or IMG 216) with a minimum grade of C or consent of instructor as determined by enrollment in an accredited Nuclear Medicine program or ARRT registry or NMTCB registry. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

Course ID: 006617

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 220 and IMG 226 and IMG 219) with a minimum grade of C. Clinical: 6.0 credits (360 contact hours).

Components: Clinical
Attributes: Technical

Course ID: 004826

Clinical Practice II
Continues IMG 210 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

Course ID: 005615

Pathology Protection & Biology
Examines the principles of radiation protection and measurement, as well as basic radiation biology principles, particularly the effects of various radiation levels on living organisms. Pre-requisite: (IMG 214 and IMG 216 and IMG 219) with a minimum grade of C. Lecture: 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical

Course ID: 005616

Clinical Practice II
Continues IMG 216 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

Course ID: 005619

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 214 and IMG 216 and IMG 219) with a minimum grade of C. Lecture: 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical

Course ID: 005617

Clinical Practice III
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

Course ID: 004300

Clinical Practice III
Continues IMG 210 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: Laboratory, Lecture
Attributes: Technical

Course ID: 004302

Clinical Practice I
Examines basic computed tomography (CT), including imaging formation, equipment, and terminology, with a focus on scanning techniques of the head, neck, chest, abdomen and pelvis, and sectional anatomy. Pre-requisite: IMG209 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

Course ID: 005614

Clinical Practice I
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

Course ID: 005611

Basic Computed Tomography
Examines basic computed tomography (CT), including imaging formation, equipment, and terminology, with a focus on scanning techniques of the head, neck, chest, abdomen and pelvis, and sectional anatomy. Pre-requisite: IMG209 with a minimum grade of C. Lecture: 1.0 credit (15 contact hours), Lab: 1.0 credit (30 contact hours).

Components: Lecture
Attributes: Technical

Course ID: 005618

Sectional Anatomy for Advanced Medical Imaging
Provides opportunities for more responsibility and independence with previously learned procedures. Requires performance of a critical evaluation of finished radiograph with emphasis on acceptable technical exposure factors and accurate patient and anatomical position. Pre-requisite: IMG 111 with a grade of C or greater. Clinical: 3.0 credits (180 contact hours).

Components: Clinical
Attributes: Technical

Course ID: 005612

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. Lecture: 1.0 credit (15 contact hours), Lab: 1.0 credit (30 contact hours).

Components: Clinical
Attributes: Technical

Course ID: 004302

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: 6.0 credits (180 contact hours).

Components: Clinical
Attributes: Technical

Course ID: 004299

Basic Computed Tomography
Examines basic computed tomography (CT), including imaging formation, equipment, and terminology, with a focus on scanning techniques of the head, neck, chest, abdomen and pelvis, and sectional anatomy. Pre-requisite: IMG209 with a minimum grade of C. Lecture: 1.0 credit (15 contact hours), Lab: 1.0 credit (30 contact hours).

Components: Lecture
Attributes: Technical

Course ID: 005614
SMAW (Stick), GMAW (MIG), GTAW (TIG), and Oxy-Fuel Provides basic instruction needed for student to weld using SMAW (Stick), GMAW (MIG), GTAW (TIG), and Oxy-Fuel processes. Co-requisite: IMT 101 or IMT 1011 - IMT 1014) or Consent of Instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

Welding for Maintenance Lab Provides application of basic welding skills used in SMAW (Stick), GMAW (MIG), GTAW (TIG), and Oxy-Fuel. Co-requisite: IMT 100 or consent. Laboratory: 2 credits (60 contact hours).

Components: Laboratory
Attributes: Course Also Offered in Modules, Technical

IMT 101(2) Course ID: 001579
Welding for Maintenance Lab Provides application of basic welding skills used in SMAW (Stick), GMAW (MIG), GTAW (TIG), and Oxy-Fuel. Co-requisite: IMT 100 or consent. Laboratory: 2 credits (60 contact hours).

Components: Laboratory
Attributes: Course Also Offered in Modules, Technical

IMT 102(2) Course ID: 002158
Industrial Maintenance Electrical Principles Introduces the theory of electricity and magnetism and the relationship of voltage, current, resistance, and power in electrical circuits. Develops an understanding of alternating and direct current fundamentals. Applies formulas to analyze the operation of AC and DC circuits. Co-requisite: IMT 111 or Consent of Instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

IMT 110(3) Course ID: 001580
Industrial Maintenance Electrical Principles Lab Provides practical experience in the construction, operation, and maintenance of AC motors and alternators. Co-requisite: IMT 120 or Consent of Instructor. Laboratory: 2 credits (60 contact hours).

Components: Laboratory
Attributes: Course Also Offered in Modules, Technical

IMT 111(2) Course ID: 001581
Industrial Maintenance Electrical Principles Lab Provides practical experience in the construction, operation, and maintenance of AC motors and alternators. Co-requisite: IMT 120 or Consent of Instructor. Laboratory: 2 credits (60 contact hours).

Components: Laboratory
Attributes: Course Also Offered in Modules, Technical

IMT 112(2) Course ID: 001582
Maintenance Machining I Includes fundamental machine operations necessary for the success of Maintenance Technicians in the field who are required to be proficient in basic machining operations. Co-requisite: IMT 110 and Consent of Instructor. Laboratory: 2 credits (60 contact hours).

Components: Laboratory
Attributes: Course Also Offered in Modules, Technical

IMT 115(2) Course ID: 001583
Maintenance Machining I Lab Includes the application of fundamental machining operations necessary for the success of Maintenance Technicians in the field who are required to be proficient in basic machining operations. Co-requisite: IMT 115 and Consent of Instructor. Laboratory: 5 credits (150 contact hours).

Components: Laboratory
Attributes: Course Also Offered in Modules, Technical

IMT 116(5) Course ID: 001584
Industrial Maintenance Rotating Machinery Students will learn the basic principles needed for the proper maintenance of AC and DC motors. Co-requisite: Permission of the instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

IMT 120(3) Course ID: 001585
Industrial Maintenance Rotating Machinery Lab Provides practical experience in the construction, operation, and maintenance of AC motors and alternators. Co-requisite: IMT 120 or Consent of Instructor. Laboratory: 2 credits (60 contact hours).

Components: Laboratory
Attributes: Course Also Offered in Modules, Technical

IMT 121(2) Course ID: 001586
Industrial Maintenance Rotating Machinery Laboratory Provides practical experience in the construction, operation, and maintenance of AC motors and alternators. Co-requisite: IMT 120 or Consent of Instructor. Laboratory: 2 credits (60 contact hours).

Components: Laboratory
Attributes: Technical

IMT 140(3) Course ID: 005594
Industrial Mechanics Introduces the fundamental principles of fluid power, mechanical systems, and the relationship between voltage, current, resistance, and power in electrical circuits. Examines the use of common hand tools, test instruments, safety, and troubleshooting. Co-requisite: IMT 141. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

IMT 141(1) Course ID: 005595
Industrial Mechanics Lab Provides practical experience in the construction, operation, and maintenance of AC motors and alternators. Co-requisite: IMT 140 or Consent of Instructor. Lecture: 3 credits (45 contact hours).

Components: Laboratory
Attributes: Technical

IMT 150(3) Course ID: 001588
Maintaining Industrial Equipment I Describes the student’s responsibilities in maintaining industrial equipment. Co-requisite: IMT 151 or Consent of Instructor. Lecture: 3 credits (45 contact hours).

Components: Laboratory
Attributes: Course Also Offered in Modules, Technical

IMT 151(2) Course ID: 001589
Maintaining Industrial Equipment I Lab Provides practical experience in the construction, operation, and maintenance of industrial equipment. Co-requisite: IMT 150 or Consent of Instructor. Laboratory: 2 credits (60 contact hours).

Components: Laboratory
Attributes: Course Also Offered in Modules, Technical

IMT 199(1 - 8) Course ID: 001390
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 (15-500 contact hours).

Components: Practicum
Attributes: Technical

IMT 199(1 - 8) Course ID: 001391
Instructor 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: Permission of Instructor. Co-op: 1 - 8 credits (15-500 contact hours).

Components: Co-Op
Attributes: Technical

IMT 200(4) Course ID: 007372
Industrial Robotics and Robotic Maintenance Provides the student with hands-on experience related to the theory of robotics including applications, basic programming, components, industrial robotic safety standards, industrial robotics classifications, keyprogramming techniques, robotic motion concepts, and terminology. Instructs the student on the concepts of preventive and predictive maintenance techniques required for a robot and its backup systems and recovery procedures. Provides the opportunity for the industrial maintenance student to develop, set up, and integrate work cells into manufacturing systems at a beginning level. Pre-requisite: IMT 110 and IMT 111 or Consent of Instructor. Lecture/Lab: 4.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

IMT 220(3) Course ID: 001392
Industrial Maintenance Electrical Motor Controls I Provides the student with lab experience in the construction, operation, and maintenance of DC motors and generators. Co-requisite: IMT 120 or Consent of Instructor. Laboratory: 1 credit (30 contact hours).

Components: Laboratory
Attributes: Technical

IMT 220(3) Course ID: 001393
Industrial Maintenance Electrical Motor Controls I Lab Provides practical experience in the construction, operation, and maintenance of DC motors and generators. Co-requisite: IMT 220 or Consent of Instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

IMT 220(3) Course ID: 001394
Industrial Maintenance Electrical Motor Controls I Lab Provides practical experience in the construction, operation, and maintenance of DC motors and generators. Co-requisite: IMT 220 or Consent of Instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

IMT 220(3) Course ID: 001395
Industrial Maintenance Electrical Motor Controls I Laboratory Provides practical experience in the construction, operation, and maintenance of DC motors and generators. Co-requisite: IMT 220 or Consent of Instructor. Laboratory: 1 credit (30 contact hours).

Components: Laboratory
Attributes: Technical

IMT 220(3) Course ID: 001396
Industrial Maintenance Electrical Motor Controls I Provides practical experience in the construction, operation, and maintenance of DC motors and generators. Co-requisite: IMT 220 or Consent of Instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

IMT 220(3) Course ID: 001397
Industrial Maintenance Electrical Motor Controls I Lab Provides practical experience in the construction, operation, and maintenance of DC motors and generators. Co-requisite: IMT 220 or Consent of Instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

IMT 220(3) Course ID: 001398
Industrial Maintenance Electrical Motor Controls I Laboratory Provides practical experience in the construction, operation, and maintenance of DC motors and generators. Co-requisite: IMT 220 or Consent of Instructor. Laboratory: 1 credit (30 contact hours).

Components: Laboratory
Attributes: Technical
Course Descriptions

IMT 221(2) Course ID:001593 Industrial Maintenance Electrical Motor Controls I Lab Includes an application of common symbols used in motor control circuits, fundamentals of electrical schematics and wiring diagrams, principles of relays, motor starters, switches, pilot devices, sensing devices, indicator lights, and the different types and operations of basic motor control circuits. Pre-requisite: IMT 110 and IMT 111 or consent of instructor. Co-requisite: IMT 220. Lecture: 2.0 credits (60 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

IMT 222(2) Course ID:006422 Industrial Maintenance Motor Controls II Provides advanced study of motor controls in industry. Addresses open and closed loop control systems, servomotors, encoders, AC and DC motors and industry standard color coding. Pre-requisite: IMT 110 and IMT 111 and IMT 220 and IMT 221 or consent of instructor. Co-requisite: IMT 223. Lecture: 2 credits (30 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

IMT 223(2) Course ID:006437 Industrial Maintenance Motor Controls II Lab Provides advanced study of motor controls in industry. Addresses open and closed loop control systems, servomotors, encoders, AC and DC motors and industry standard color coding. Pre-requisite: IMT 110 and IMT 111 and IMT 220 and IMT 221 or consent of instructor. Co-requisite: IMT 222. Laboratory: 2 credits (60 hours).

Components: Laboratory
Attributes: Course Also Offered in Modules, Technical

IMT 230(5) Course ID:001594 Industrial Maintenance of PLC’s This course includes the theory of programmable logic controllers to include installation, programming, interfacing, and troubleshooting of industrial PLC’s. Pre-requisite: IMT 240.

Components: Lecture
Attributes: Technical

IMT 231(2) Course ID:001595 Industrial Maintenance of PLC’s Lab Addresses the diversity of PLC control devices and applications used in industry today. Safety and electrical lockouts are also included. Pre-requisite: (IMT 110 and 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 (90 contacthours).

Components: Laboratory
Attributes: Technical

IMT 240(6) Course ID:001596 Industrial Maintenance Motor Control Concepts Addresses the diversity of control devices and applications used in industry today with safety and 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 I Integrates the student’s accumulative knowledge from the IMT 150 and IMT 151 courses. Emphasizes troubleshooting techniques and applied machine repair situations that require the student to apply learned skills from all areas of the curriculum. Pre-requisite: IMT 150 and 151 with a grade of “C” or greater or consent of instructor. Co-requisite: IMT 251 or consent of instructor. Lecture: 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical

IMT 251(3) Course ID:001599 Maintaining Industrial Equipment II Lab Complements IMT 250 and consists of advanced, specific and assigned machine repair tasks. Pre-requisite: IMT 150 and 151 with a grade of “C” or greater or consent of instructor. Co-requisite: IMT 250 or consent of instructor. Laboratory: 3.0 credits (90 contact hours). Lab: 3.0 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

IMT 260(7) Course ID:000546 Presswork and Die Maintenance Includes the fundamental concepts and machining operations needed by the industrial maintenance technician to be proficient in the field of stamping press and die maintenance. Pre-requisite: IMT 100 and IMT 101 and IMT 115 and IMT 116 or IMT 110 and 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 of programmable logic controllers to include designing applications, programming, interfacing and troubleshooting of industrial PLCs. Pre-requisite: (IMT 220 and IMT 221 with a grade of “C” or greater or consent of instructor) or Consent of Instructor. Co-requisite: IMT 281 or Instructor Consent.

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

IMT 281(2) Course ID:001601 Programmable Logic Controllers Lab Provides practical applications of the theory in IMT 280 to include installation, programming, interfacing and troubleshooting of industrial PLCs. Pre-requisite: (IMT 220 and 221 with a grade of C or greater) or Consent of Instructor. Co-requisite: IMT 280 or Consent of Instructor. Laboratory: 2 credits (60 contact hours).

Components: Laboratory
Attributes: Course Also Offered in Modules, Technical

IMT 289(1) Course ID:007373 Industrial Maintenance Technology Capstone Serves as the capstone course for the Industrial Maintenance Technology degree program. Integrates 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 120) and PX 100 and PX 101 and IMT 100 and 110 and 111 and IMT 150 and 151 and IMT 220 and IMT 222 or consent of instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
Attributes: Technical

Course Descriptions

IMT 203(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 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 1014(0.5) Course ID:005922 Welding for Maintenance GTAW (TIG Welding) Lab Provides application of setup and use of GTAW (TIG welding) equipment. Co-requisite: IMT 1004 (or consent of instructor). Laboratory: 0.5 credit (15 contact hours).

Components: Laboratory

IMT 1151(0.2) Course ID:006406 General Shop Knowledge Includes fundamental machining operations necessary for the success of Maintenance Technicians in the fields who are required to be proficient in basic machining operations. Co-requisite: IMT 1161 or Consent of Instructor. Lecture: 0.2 credit (3 contact hours).

Components: Lecture

IMT 1152(0.1) Course ID:006407 Vertical and Horizontal Bandsaw Operations Introduces vertical and horizontal bandsaw operations including the selection of feeds and speeds as well as blade welding. Co-requisite: IMT 1162 or Consent of Instructor. Lecture: 0.1 credit (1.5 contact hours).

Components: Lecture

IMT 1153(0.3) Course ID:006408 Drill Press Operations and Procedures Introduces drill press operations including the selection of feeds and speeds, layout, drill bit selection and sharpening, and precision drilling operations. Co-requisite: IMT 1163 or Consent of Instructor. Lecture: 0.3 credit (4.5 contact hours).

Components: Lecture

IMT 1154(0.8) Course ID:006409 Lathe Operations and Procedures Introduces lathe operations including lathe components, grinding tool bits, the selection of feeds and speeds, turning operations. 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, trammig, 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
Addresses the diversity of motor starters, control devices, and circuitry. Pre-requisite: IMT 2211 or Consentof Instructor. Co-requisite: IMT 2202, Laboratory: 0.5 credit (15 contact hours).

Components: Laboratory

IMT 2213(1) Course ID:006421
Motor Control Circuits Lab
Explores aspects of electrical symbols and specialized motor control circuits. Pre-requisite: IMT 2212 or Consent of Instructor. Co-requisite: IMT 2203, Laboratory: 1.0 credit (30 contact hours).

Components: Laboratory

IMT 2221(1.0) Course ID:006423
Principles in Process Control and Automation
Gives and overview of open and closed loop systems and how they relate to service and motor encoders. Pre-requisite: (IMT 110 and IMT 111) or Consent of Instructor. Co-requisite: IMT 2231. Lecture: 0.6 credit (240 contact hours).

Components: Lecture

Attributes: Course Also Offered in Modules

IMT 2222(0.7) Course ID:006432
Industry Standards for Control Circuit Wiring and Troubleshooting Methods
Covers industry standards related to color coding of industrial wiring control cabinets. Provides for troubleshooting techniques using electrical hand tools and developing and interpreting troubleshooting flowcharts to determine phase failure and voltage drops. Pre-requisite: (IMT 110 and IMT 111) or Consent of Instructor. Co-requisite: IMT 2232. Lecture: 0.7 credit (10.5 contact hours).

Components: Lecture

Attributes: Course Also Offered in Modules

IMT 2223(1.0) Course ID:006433
Industry Standards for Installing Motors and Electronic Variable Speed Drives
Covers how to properly evaluate maintenance procedures used for installation of AC and DC motors, proper startup and shut down of electrical systems and fault recovery. Pre-requisites: (IMT 110 and IMT 111) or Consent of Instructor. Co-requisite: IMT 2233.

Components: Lecture

Attributes: Course Also Offered in Modules

IMT 2231(0.5) Course ID:006434
Principles in Process Control and Automation Lab
Provides the lab component for IMT 2221. Covers open and closed loop systems and how they relate to service 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 2232(0.5) Course ID:006435
Industry Standards for Control Circuit Wiring and Troubleshooting Methods Lab
Provides the lab component for IMT 2222. Covers industry standards related to color coding of industrial wiring control cabinets. Provides for troubleshooting techniques using electrical hand tools and developing and interpreting troubleshooting flowcharts 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(1.0) Course ID:006436
Industry Standards for Installing Motors/Electronic Variable Speed Drives II
Provides the lab component for IMT 2223. Covers how to properly evaluate maintenance procedures used for installation of AC and DC motors, proper startup and shut down of electrical systems and fault recovery. Pre-requisite: (IMT 110 and IMT 111) or Consent of Instructor. Co-requisite: IMT 2223, Laboratory: 1 credit (30 contact hours).

Components: Laboratory

IMT 2601(0.5) Course ID:006547
Stamming Press Basics
Addresses press and production safety; various types of presses, and press operations. Pre-requisite: (IMT 115 & IMT 116) or (MTT 110 & MTT 112) or Consent of Instructor. Lecture: 0.5. (Contact Hours7.5).

Components: Lecture

IMT 2602(0.5) Course ID:006548
Stamming 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
Stamming 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
Metallogy of Die Components
Addresses the characteristics of various tool and die steels, the properties of low carbon steels and castiron, and die surface coatings and treatments. Pre-requisite: IMT 2603 or Consent of Instructor. Lecture: 0.6 credits (7.5 contact hours).

Components: Lecture

IMT 2605(1.2) Course ID:006551
Anatomy of Stamping Dies
Addresses pads and stripers, 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

IMT 2607(1.6) Course ID:006553
Die Repair
Addresses the repair of dies including good grinding practice, repairing worn edges, performing shimming of decomponents, repairing forming ribs and embossments, performing electrical and welding repairs, performing handfinishing, 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: 0.5 credits (7.5 contact hours).

Components: Lecture

IMT 2801(0.75) Course ID:006424
Introduction to Programmable Logic Controllers
Provides an overview of Programmable Controllers, their hardware and functions, Pre-requisite: (IMT 220 and IMT221 with a grade of “C” or greater) or (equivalent) or Consent of Instructor), Co-requisite: IMT 2811 or Consent of Instructor. Consent Lecture: 0.75 credit. (11.25 contact hours).

Components: Lecture

IMT 2802(0.75) Course ID:006425
Programming Instructions in PLCs
Provides an overview in programming Programmable Logic Controller Timers and Counters. Co-requisite: IMT 2812 or Consent of Instructor Consent Lecture: 0.75 credit. (11.25 contact hours).

Components: Lecture

IMT 2803(0.75) Course ID:006426
Number Systems and Data Manipulation in PLCs
Includes different numbering systems, their transfer from one location to another, comparing, manipulation andcommon math instructions used in PLC. Co-requisite: IMT 2813 or Consent of Instructor Consent Lecture: 0.75 credit. (11.25 contact hours).

Components: Lecture
INF 128(3) Course ID:007284
Object Oriented Programming I

INF 260L(1) Course ID:007285
Object Oriented Programming Laboratory

INF 282(3) Course ID:007286
Introduction to Databases

INF 128(3) Course ID:007282
Elementary Programming

INF 260(3) Course ID:007284
Object Oriented Programming I

INF 100(3) Course ID:006586
Introduction to Insurance and Risk Management

INS 101(3) Course ID:006587
Foundations of Insurance Production

INS 180(3) Course ID:006588
Multiple Lines Insurance Production

IRM Integrated Reading and Writing

IRM 85(4) Course ID:015875
Integrated Reading and Writing I

IRM 95(4) Course ID:007214
Integrated Reading and Writing

ISX 100(3) Course ID:001622
Advanced Instructions and Troubleshooting PLCs Lab

ISX 100(3) Course ID:006430
Number Systems and Data Manipulation in PLCs Lab

ISX 102(4) Course ID:003972
Fundamentals of Instrumentation

ISM 210(4) Course ID:003976
Fundamentals of Process Control

ISX 102(4) Course ID:003972
Fundamentals of Instrumentation

ISX 103(3) Course ID:006589
Agency Operations and Sales Management

ISX 100(3) Course ID:001622
Industrial Safety

ISX 180(3) Course ID:006587
Multiple Lines Insurance Production

ISX 180(3) Course ID:006588
Multiple Lines Insurance Production

IRW 95(4) Course ID:007214
Integrated Reading and Writing

IRW 85(4) Course ID:015875
Integrated Reading and Writing I

IRW 95(4) Course ID:007214
Integrated Reading and Writing
certification in first aid and cardiopulmonary resuscitation.

Components: Lecture
Attributes: Technical

ISX 101(3) Course ID:000877
Introduction to Industrial Safety
Introduces the history of the industrial safety movement along with current standards under the Occupational Safety and Health Act (OSHA). Introduces safety engineering methods. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

ISX 105(2) Course ID:015675
General Industrial Safety
Introduces the history of the safety movement under the standards of the Occupational Safety and Health Administration (OSHA). Provides entry level workers with information about their rights and responsibilities. Emphasizes hazard identification, avoidance, control and prevention. OSHA chart available upon successful completion of all required course topics. Lecture: 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical

ISX 100(1) Course ID:016784
Safety & Universal Precaution
This course provides practical training in industrial safety. The students are taught to observe general safety rules and regulations, to apply work site and shop safety rules, and to apply OSHA regulations. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

ISX 100(1) Course ID:016786
CPR & First Aid
This course provides practical training in industrial safety. Students are expected to obtain certification in first aid and cardiopulmonary resuscitation. Lecture: 1.5 credits (15 contact hours).

Components: Lecture

ISX 1051(0.67) Course ID:015673
10-hour General Industry
Provides entry level workers with information about their rights and employer responsibilities. Emphasizes hazard identification, avoidance, control and prevention. Lecture: .67 credits (10 contact hours).

Components: Lecture

ISX 1052(1.33) Course ID:015674
General Industry Topics
Introduces the history of the safety movement under the standards of the Occupational Safety and Health Administration (OSHA). Emphasizes hazard identification, avoidance, control and prevention. (Covers selected topics and standards for general industry under OSHA.) OSHA chart may be available upon successful completion of all required course topics (and must be within six months of completing ISX 1051). Pre-requisite OR Co-requisite: ISX 1051. Lecture: 1.33 credits (20 contact hours).

Components: Lecture

ITE 250(3) Course ID:004619
Team Dynamics and Problem Solving
Emphasizes the use of a systematic problem-solving model while building skills for team members and leaders. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

ITE 233(3) Course ID:004618
Statistical Process Control
Introduces students to the principles and methods used for controlling the quality of goods produced. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

JAT 101(3) Course ID:002222
Introduction to Communication Media
Lectures, readings, and other materials provide an introductory survey of the journalism, advertising, and telecommunications professions. This course will foster an understanding of the historical development, theory, effects, regulation, practice, and professional opportunities of these three industries. Students will gain awareness of the possibilities and limitations of evolving communication technologies, preparing them to become intelligent consumers, producers, and managers of communication media. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Other

JAT 241(1 - 4) Course ID:002223
Communications Practicum
Supervised laboratory work in the media of mass communications, with meetings for evaluation of work, study of techniques, analyses of problems, and reports. May be repeated to a maximum of four credits. (Offered in Community College System only.) Independent Study 1.0 - 4.0 credit (15 contact hours).

Components: Independent Study
Attributes: Other

JOU 101(3) Course ID:000788
Introduction to Journalism
This course surveys the history and social theories of journalism and introduces students to contemporary journalistic practice. Students will learn about the function and operation of print, electronic and on-line news media. Issues and concepts to be covered include the relationship of government to media; press freedom and controls; media ethics, and the impact of global communications. The course also covers the relationship of journalism to advertising, public relations and telecommunications, particularly with regard to new technologies. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Other

JOU 204(3) Course ID:000794
Writing for the Mass Media
An introduction to the concepts and techniques of media writing. This course offers hands-on instruction in information gathering, organization, and writing for print, broadcast and on-line media. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (60/30:1 ratio contact hours). Pre-requisite: JOU 101 or Consent of Instructor.

Components: Laboratory, Lecture

JPN 101(4) Course ID:003862
Beginning Japanese I
A course in first semester Japanese language. Lecture: 4 credits (60 contact hours).

Components: Lecture
Attributes: Foreign Language, Cultural Studies

JPN 102(4) Course ID:003970
Beginning Japanese II
A course in second semester Japanese language. Pre-requisite: JPN 101 or equivalent. Lecture: 4 credits (60 contact hours).

Components: Lecture
Attributes: Foreign Language, Cultural Studies

JPN 201(3) Course ID:003994
Intermediate Japanese I
Focuses on developing listening, speaking, reading and writing skills in early intermediate level of Japanese. Pre-requisite: JPN 102/RAE 121 or equivalent. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Other
Course Descriptions

JPN 202(3) Course ID: 004208
Intermediate Japanese II
Focuses on developing listening, speaking, reading and writing skills in upper intermediate level of Japanese. Pre-requisite: JPN 201. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other

KHP 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. Upto 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. Upto 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. Upto 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. Upto 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. Upto 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. Upto 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. Upto six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Components: Laboratory
Attributes: Other

KHP 124(1) Course ID: 002324
Conditioning
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Upto 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. Upto 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. Upto 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
Beginning Weight Training
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Upto six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours)
Components: Laboratory
Attributes: Other

KHP 136(1) Course ID: 002336
Advanced Walking for Fitness
Instruction in a variety of motor skill activities. Courses are for students who already possess intermediate skills in the activity. Instructors will assess skill at start of course. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Assignment of specific title will occur internally in the department. Lab: 3 hours. Pre-requisite: Completion of comparable service course or demonstrated competency.
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. Upto six hours credit may be earned in service courses; however, the same activity may not be repeated for credit.
Components: Laboratory
Attributes: Other

KHP 140(1) Course ID: 002341
Advanced Weight Training
Instruction in a variety of motor skill activities. Courses are for students who already possess intermediate skills in the activity. Instructors will assess skill at start of course. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Assignment of specific title will occur internally in the department. Pre-requisite: Completion of comparable service course or demonstrated competency. Lab: 3.0 credit hours.
Components: Laboratory
Attributes: Other

KHP 142(1) Course ID: 002342
Advanced Aerobics
Instruction in a variety of motor skill activities. Courses are for students who already possess intermediate skills in the activity. Instructors will assess skill at start of course. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Assignment of specific title will occur internally in the department. Pre-requisite: Completion of comparable service course or demonstrated competency. Lab: 3.0 credit hours.
Components: Laboratory
Attributes: Other

KHP 143(1) Course ID: 002343
Intramurals
Instruction in a variety of motor skill activities. Courses are for students who already possess intermediate skills in the activity. Instructors will assess skill at start of course. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Assignment of specific title will occur internally in the department. Pre-requisite: Completion of comparable service course or demonstrated competency. Lab: 3.0 credit hours.
Components: Laboratory
Attributes: Other

KHP 145(3) Course ID: 003870
Concepts of Health and Fitness
Current concepts of health and fitness covering such topics as the benefits of physical fitness, principles of weight training, prevention of cardiovascular disease, and basic concepts of nutrition and weight management. Emphasis will be on the promotion of health lifestyles. Lecture: 3 credits (45 contact hours)
Components: Lecture
Attributes: Other
### KHP 146(1) Course ID:016371
**Intermediate Yoga**
Provides students with intermediate instruction and activities associated with yoga. Laboratory: 1 credit (30 contact hours).
Components: Laboratory
Attributes: Other

### KHP 149(1) Course ID:016372
**Advanced Yoga**
Provides students with advanced instruction and activities associated with yoga. Laboratory: 1 credit (30 contact hours).
Pre-requisite or Co-requisite: KHP 146.
Components: Laboratory
Attributes: Other

### KHP 150(3) Course ID:006816
**Personal Health Behavior**
Prepares students to make informed choices about health issues and behaviors and to take responsibility for their health and well-being. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

### KHP 160(3) Course ID:006817
**Personal Nutrition and Fitness**
Introduces the importance of daily diet and nutrition. Addresses the role of the personal trainer in helping clients to recognize and decrease risks for chronic diseases. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

### KHP 190(2) Course ID:000029
**First Aid and Emergency Care**
A study of first aid subject matter and orientation in the various first aid teaching methods. Lectures and demonstrations on first aid techniques with skill training. American Red Cross Certificate made available. Lecture: 1.0 credit hour; Laboratory: 2.0 credit hours.
Components: Laboratory, Lecture
Attributes: Other

### KHP 225(3) Course ID:006818
**Exercise Techniques and Physical Training**
Focuses on the core components of personal training. Provides information and resources necessary to pass personal fitness trainer certification. Pre-requisite: BIO 135 or MSG 100 (or consent of instructor). Co-requisite: KHP 235. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other

### KHP 230(3) Course ID:000379
**Human Health and Wellness**
The study of health promotion, wellness, and disease prevention concepts as applied to individual, familial, and community health.
Components: Lecture
Attributes: Other

### KHP 235(2) Course ID:006820
**Personal Trainer Practicum**
Students will apply personal training principles and techniques and demonstrate skills with clients in various settings under instructor and preceptor supervision. Pre-requisite: BIO 135 or MSG 100. Co-requisite: KHP 225. Practicum: 2.0 credits (60 contact hours).
Components: Practicum
Attributes: Other

### KHP 240(3) Course ID:002226
**Nutrition and Physical Fitness**
Focuses on the inter-relationship between nutrition and physical fitness. Provides the student with the information necessary to formulate an individualized plan for achievement and maintenance of adequate nutrition and physical fitness while addressing weight control. Lecture: 3 credits (45 contact hours).
Components: Laboratory, Lecture
Attributes: Other

### KMA Kentucky Medication Aide
**KMA 100(5) Course ID:001629**
**Kentucky Medication Aide**
Prepares a Kentucky Medicaid Nurse Aide to administer specific medications in a long term care facility as delegated and supervised by a licensed nurse. Pre-requisite: [MINA 100 or NAA 100 or NAA 125] and six months of work experience as a Kentucky Medicaid Nurse Aide or Consent. Lecture/Lab: 5.0 credits (105 contact hours).
Components: Lecture
Attributes: Technical

### LAS Latin America
**LAS 201(3) Course ID:015525**
**Introduction to Latin America**
An interdisciplinary approach to the people, culture, and development of the Latin American republics. Attention will be concentrated on significant aspects of the indigenous peoples, geography, economic processes, gender roles, social structures and politics of Latin America, with special attention paid to value structures and value conflicts. Musical, literary and artistic expression in Latin America will also be introduced. Lecture: 3.0 credits (45 contact hours)
Components: Lecture
Attributes: AH - Arts and Humanities, University Course
(University of Kentucky)

### LEAD Leadership Studies
**LEAD 200(3) Course ID:006761**
**Introduction to Leadership Studies**
The purpose of this course is to provide students with 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: AH - Arts and Humanities, University Course
(University of Kentucky)

### LIN Linguistics
**LIN 175(3) Course ID:015987**
**Information Literacy**
A foundational course that introduces students to the cross-disciplinary skills needed to assess information needs, and access and evaluate information sources. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, University Course
(Northern Kentucky University)

### LIT Library Information Technology
**LIT 115(3) Course ID:004801**
**Introduction to Reference Services**
Introduces library reference sources and services. Includes reference interview techniques, print and digitall information sources, bibliographic and full text databases, and digital access and retrieval skills. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

**LIT 120(3) Course ID:007416**
**Readers’ Advisory Services**
Examines library readers’ advisory services. Includes readers’ advisory resources, library programming, book discussion groups, collection development, formats for books, ebooks and audio books, online applications, and marketing. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

**LIT 124(3) Course ID:004802**
**Library Administration**
Introduces basic principles of library organization and management. Includes the planning process, policies, ethical and legal issues, budgeting, and human resources. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

**LIT 132(3) Course ID:004803**
**Library Technical Services**
Provides an overview of library technical services, including acquisitions, processing, cataloging and classification. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

**LIT 200(3) Course ID:005218**
**Seminar in Kentucky Literature**
Introduces Kentucky literature, recognizing, studying, and examining distinct regional differences and similarities with concentration on major contemporary and traditional Kentucky writers and their texts. Approaches may include a group of authors, an historical period or aesthetic movement, a genre, a theme, or an aspect of literary theory. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

**LIT 230(3) Course ID:004804**
**Web Publishing for Libraries**
Introduces 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. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

**LIT 240(3) Course ID:004805**
**Literature of Appalachian Kentucky**
Introduces the Appalachian literature of Kentucky concentrating on the major contemporary and traditional writers who are distinctly identified with that region. Approaches may include a group of authors, an historical period or aesthetic movement, a genre, a theme, or an aspect of literary theory. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

**LIT 242(3) Course ID:004806**
**Literature of Western Kentucky**
Introduces the literature of Western Kentucky concentrating on the major contemporary and traditional writers who are distinctly identified with that region. Approaches may include a group of authors, an historical period or aesthetic movement, a genre, a theme, or an aspect of literary theory. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

**LIT 243(3) Course ID:004807**
**Library Services for Children**
Introduces library services for children grades K - 6 and their caregivers. Includes surveys of child development, library programming, children’s literature, collection development, and legal issues. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

**LIT 245(3) Course ID:005083**
**Library Services for Young Adults**
Introduces library services for young adults from 6th to 12th grades. Includes programming, collection development, young adult literature, the use of the Internet, and ethical and legal issues. Emphasizes the development and promotion of young adult library services. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Course ID</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIT 247(3)</td>
<td>Library Services for Adults</td>
<td>Course ID:004808</td>
<td>Introduces library services for adults. Includes adult literature, collection development, programming, circulation services, reference services, and customer relations. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Technical</td>
</tr>
<tr>
<td>LIT 248(3)</td>
<td>Library Services for Preschool Children</td>
<td>Course ID:004809</td>
<td>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 child care services, collection development, and legal issues. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Technical</td>
</tr>
<tr>
<td>LOM 100(3)</td>
<td>Logistics and Operations Management</td>
<td>Course ID:006827</td>
<td>Introduction to Logistics Management Presents an overview of general logistics concepts and organizational issues; inventory management and customerservice in logistics; and transportation and third party logistics. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Technical</td>
</tr>
<tr>
<td>LOM 102(3)</td>
<td>Supply Chain Management</td>
<td>Course ID:006829</td>
<td>Presents an overview of supply chain management and financial analysis; inventory management skills and techniques; and supply chain design and sustainability solutions. Pre-requisite: LOM 100. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Technical</td>
</tr>
<tr>
<td>LOM 180(3)</td>
<td>Project Management</td>
<td>Course ID:004629</td>
<td>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 project with opportunities to apply skills and elements by completing activities based upon real-time projects and case studies. Pre-requisite: Digital literacy or consent of instructor. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Technical</td>
</tr>
<tr>
<td>LOM 202(3)</td>
<td>Applied Supply Chain Management</td>
<td>Course ID:006830</td>
<td>Provides an understanding of the importance of individual components (suppliers, manufacturers, distributors, and customers) in the operation of a supply chain. Pre-requisite: LOM 102. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Technical</td>
</tr>
<tr>
<td>LOM 210(3)</td>
<td>Lean for Logistics</td>
<td>Course ID:016149</td>
<td>Introduces students to the principles and practices of lean operations in relation to the field of logistics. Incorporates a lean simulation activity and examples from lean practitioners in the management of supply chain operations. Discusses core lean principles with an emphasis on work cells and Just In Time (JIT) practices. Pre-requisite or Co-requisite: LOM 100 Introduction to Logistics Management. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Technical</td>
</tr>
<tr>
<td>LOM 1004(2)</td>
<td>Logistics Concepts</td>
<td>Course ID:016726</td>
<td>Presents an overview of general logistics concepts and organizational issues; inventory management, and customerservice in logistics. Lecture: 2.0 credits (30 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>LOM 1005(1)</td>
<td>Logistics of Transportation</td>
<td>Course ID:016727</td>
<td>Presents an overview of transportation and third party logistics. Pre-requisite: LOM 1004. Lecture: 1.0 credits (15 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>LOM 1011(1)</td>
<td>Transportation Overview</td>
<td>Course ID:015579</td>
<td>Presents an overview of the role of transportation and pricing issues. Pre-requisite: LOM 100. Lecture: 1.0 credit (15 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>LOM 1021(1)</td>
<td>Supply Chain Overview</td>
<td>Course ID:015576</td>
<td>Presents an overview of supply chain management and financial analysis. Pre-requisite: LOM 100. Lecture: 1.0 credit (15 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>LOM 1022(1)</td>
<td>Supply Chain Skills</td>
<td>Course ID:015577</td>
<td>Presents inventory management skills and techniques. Pre-requisite: LOM 1021. Lecture: 1.0 credit (15 contact hours). Components: Lecture</td>
</tr>
<tr>
<td>LOM 1023(1)</td>
<td>Supply Chain Sustainability</td>
<td>Course ID:015578</td>
<td>Presents supply chain design and sustainability solutions. Pre-requisite: LOM 1022. Lecture: 1.0 credit (15 contact hours). Components: Lecture</td>
</tr>
</tbody>
</table>
### LSI 150(4)
**Course ID: 004407**
**Professional Locksmithing**

Comprehensive hands-on knowledge of locks, providing the student with the information necessary to become an accomplished technician who can service, maintain, troubleshoot and master key any industrial key lock system. Pre-requisite: Students will be required to undergo a criminal background investigation. If a student is presently employed by a law enforcement or federal agency that requires criminal checks, this requirement may be waived by LSI. Lecture: 3 credits (45 contact hours). Laboratory: 1 credit (30 contact hours).

**Components:** Laboratory, Lecture

**Attributes:** Technical

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### 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 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)

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### MA 162(3)
**Course ID: 006628**
**Elementary Calculus and Its Applications**

An introduction to differential and integral calculus, with applications to business and the biological and social sciences. Not open to students who have credit in MA 113. Students who have received credit for MA113 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. 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)

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### MA 191(3)
**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)

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### 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)
Course Descriptions

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)

MAI 105(3) Course ID:004342
Introduction to Medical Assisting
Introduces rights, roles, responsibilities and functions of the medical assistant including personal and professional awareness, communication, interpersonal relationships, psychological concepts, ethics and legalities. Lecture: 3 credits (45 contact hours). 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
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, filling office correspondence, mail processing, appointment scheduling, progress medical records, and an introduction to medical office computer software. Lecture: 3 credits (45 contact hours). Pre-requisite: Acceptance into the Medical Assisting Program or consent of Medical Assisting Coordinator/Director. Components: Lecture
Attributes: Technical

MAI 170(2) Course ID:004093
Department Consent Required
Dosage Calculations
Provides a review of basic mathematics skills related to dosage calculations, a thorough knowledge of the systems of measurement and conversion, and application skills to perform dosage calculations. Lecture: 2 credits (30 contact hours). Pre-requisite: Consent of Medical Assisting Coordinator/Director. Components: Lecture
Attributes: Technical

MAI 200(3) Course ID:004094
Pathophysiology for the Medical Assistant
Provides instruction related to common acquired diseases, congenital conditions, injuries, illnesses, and trauma situations as related to the major body systems. Pre-requisite: (BIO 135 or BIO 137 and BIO 139) and (CLA 131 or AHS 115 or AHS 120 or MIT 103) or Consent of Medical Assisting Coordinator/Director. All prerequisites 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 waivered complexity testing performed in the physician's office laboratory. Stresses CLIA and OSHA regulations. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (30 contact hours). Pre-requisite: MAI 120 with a grade of "C" or greater. Components: Laboratory, Lecture
Attributes: Technical

MAI 230(3) Course ID:004096
Department Consent Required
Medical Insurance
Introduces fundamentals of insurance processing and coding for the medical office, with focus on proper procedures for accurate coding systems using the CPT, HCPCS and other coding systems. 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 examinations, 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, Lecture
Attributes: Technical

MAI 250(3) Course ID:004098
Medical Assisting Administrative Procedures II
Focuses on compiling and completing financial and insurance claim forms. Includes banking concepts, accounting systems frequently used in the medical office, payment procedures, insurance plans and claims, paper and electronic billing methods, and professional fees. Pre-requisite: MAI 150 with a grade of "C" or greater OR Consent of Program Coordinator. Lecture/Lab: 3.0 credits (60 contact hours). Components: Laboratory, Lecture
Attributes: Technical

MAI 270(3) Course ID:004100
Pharmacology for the Medical Assistant
Examines pharmacology with concentration on prescripions, drug nomenclature, classification of drugs, patient education, medication preparation and administration. Pre-requisite: (MAI 170 and BIO 135 or BIO 137 and BIO 139) and (AHS 115 or AHS 120 or CLA 131 or MIT 103) with a grade of "C" or better or Consent of Medical Assisting Program Coordinator/Director. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (45 contact hours). Components: Laboratory, Lecture
Attributes: Technical

MAI 281(1) Course ID:004101
Medical Assisting Practicum
Provides introductory practical experience (unpaid) through observation and work assignments in a healthcare setting. Clinical: 1 credit (60 contact hours). Pre-requisite: Consent of Medical Assisting Program Coordinator/Director. Components: Clinical
Attributes: Technical

MAI 282(3) Course ID:004102
Medical Assisting Externship
Provides 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:015872
Medical Assisting Externship
Provides the student to apply knowledge, perform administrative and clinical procedures, and develop professional attitudes for interacting with other professionals and consumers in the health care field by means of externship assignments (unpaid). Pre-requisite: MAI 281 and Consent of Medical Assisting Program Coordinator/Director. Practicum: 2.0 - 3.0 credits (120-180 contact hours). Components: Practicum
Attributes: Technical

MAI 289(1 - 2) Course ID:016764
Medical Assisting Assessment Preparation
Prepares student to assume the role of the Medical Assistant by preparing them for successful credentialing while providing the opportunity to apply critical thinking, cognitive skills and performance competencies. Pre-requisite: Consent of Program Coordinator. Laboratory: 1.0-2.0 credit hours (30-60 contact hours). Components: Laboratory
Attributes: Technical
MAT 299(1 - 4) Course ID:004341
Instructor Consent Required
Selected Topics: Medical Assisting; (Topic)
Various medical assisting topics, issues and trends will be addressed. Topics may vary from semester to semester at the discretion of the instructors; course may be repeated with different topics to a maximum of six contact hours.
Lecture: varies Laboratory: varies. Pre-requisite: Consent of instructor.
Components: Laboratory, Lecture
Attributes: Technical

MAT Mathematics

MAT 11(3) Course ID:015623
Transitional Algebra
Provides individualized, accelerated, mastery-level progression through entry-level college mathematics. Pre-requisite competencies as defined by KY Council of Post Secondary Education. Note: A passing grade in this course does not necessarily indicate that all prerequisites for all entry-level college mathematics courses have been met. Pre-requisite: KCTCS Placement Exam. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 50(1 - 2) Course ID:004555
Developmental Mathematics Workshop
Provides supplemental academic support such as extra class sessions, tutoring, and/or increased monitoring to promote student success. May be associated with any developmental math course offered through KCTCS and may be repeated for each math course. Credit cannot be received by special exam. Co-requisite: Set by instructor. Laboratory: 1-2 credits (30-60 contact hours).
Components: Laboratory
Attributes: Remedial - Mathematics

MAT 55(3) Course ID:004555
Pre-Algebra
Includes operations on integers, decimals and fractions. Introduces exponents, square roots, percents, ratios, proportions, prime factorization, basic geometry, algebraic expressions, basic linear equations, and applications. Pre-requisite: KCTCS placement exam. 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 integers. Fractions, decimals, and percents. 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 Exam. 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. 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

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 Exam. 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 055A. 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 points, a graph, or an equation; determining the intercepts of a line; and determining if two lines are parallel, perpendicular, or neither based on slope. Pre-requisite: MAT 055B. 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 055C. 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 055D. Lecture: 0.4 credits (6.0 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 75(4) Course ID:015859
Mathematical Literacy
Develops the mathematical thinking skills and understanding needed for non-math and non-science majors, in an entry-level course integrating numeracy, proportional reasoning, algebraic reasoning, and functions. Provides an alternate path for 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, exponential, and radical equations. Pre-requisite: MAT 065 or MAT 075 or KCTCS placement examination. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 96(1 - 2) Course ID:015815
Supplemental Mathematics
Provides academic support for students scoring below the system-wide standard into a quantitative-reasoning course. Serves as supplemental co-requisite for students with borderline test scores, as defined in the KCTCS placement policy. If students withdraw from MAT 096, they must also withdraw from the co-requisite course. Co-requisite: A quantitative-reasoning course requiring supplemental instruction. Lecture: 1.0 - 2.0 credits (15 - 30 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 100(2) Course ID:002374
College Algebra Workshop
Provides parallel and supplemental review of algebra skills needed for success in college algebra for students with a Math ACT of 19-21. (Credit not available by special exam; withdrawal from MAT 100 requires withdrawal from MAT 150, can be offered pass/fail or letter grade basis.) Lecture: 2.0 credits (30 contact hours). Prerequisite: Concurrent enrollment in MAT 150. NOTE: Effective Fall 2010 ACT 19.
Components: Lecture
Attributes: Other, Course Also Offered in Modules

MAT 105(3) Course ID:004557
Business Mathematics
Covers basic mathematical concepts as applied to finance. Includes percentages, simple and compound interest, annuities, sinking funds, depreciation, and consumer debt, including installment buying, credit cards, and mortgages. Pre-requisite: MAT 062 or MAT 065 or equivalent as determined by KCTCS placement examination. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Quantitative Reasoning AAS

MAT 110(3) Course ID:004558
Applied Mathematics
Includes the concepts of ratio and proportion, units and conversions, linear equations in two variables, inequalities, graphing and writing equation of a line, percents, interest, descriptive statistics, and logical symbolism. Emphasizes applications in the various technologies. Pre-requisite: MAT 062 or MAT 065 or equivalent as determined by KCTCS placement examination. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Quantitative Reasoning AAS, Course Also Offered in Modules

MAT 116(3) Course ID:004559
Technical Mathematics
Includes some mathematical concepts from algebra, geometry, and trigonometry and applications relevant to these topics. Includes unit conversions, variation, measurement of geometric figures, vectors, and solving right and oblique triangles using trigonometry. Emphasizes applications in the various technologies.
Pre-requisite: MAT 062 or MAT 065 or equivalent as determined by KCTCS placement examination. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Quantitative Reasoning AAS, Course Also Offered in Modules

MAT 126(3) Course ID: 004562
Technical Algebra and Trigonometry
Examines mathematical concepts from algebra and trigonometry. Includes vectors, phases, parabola, variation, trigonometric functions, coordinate systems, systems of linear equations, quadratic, rational, exponential and logarithmic equations. Pre-requisite: MAT 065 or equivalent as determined by KCTCS placement examination. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Quantitative Reasoning AAS

MAT 146(3) Course ID: 002375
Contemporary College Mathematics
Serves as a course in quantitative reasoning and problem solving intended for non-science majors. Includes voting methods, finance, population growth, and at least two additional topics chosen from: apportionment, geometry, logic, probability and statistics, 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, MAT 0705, MAT 126, or equivalent, or 3. KCTCS placement exam recommendation. Lecture: 3 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 MAT 150 and any other College Algebra or Precalculus course. Credit not available on the basis of special examination.) Lecture: 3 credits (45 contact hours).

Pre-requisites: 1. Math ACT score of 22 or above, 2. Math ACT score of 19 or above or two years of high school algebra. Lecture: 2.0 credits (30 contact hours).

Components: Lecture Course Equivalents: MA 109
Attributes: QR - Quantitative Reasoning, Course Also Offered In Modules

MAT 154(2) Course ID: 000552
Trigonometry
Includes trigonometric functions, identities, multiple analytic formulas, laws of sines and cosines, graphs of trigonometric functions, and inverse trigonometric functions. Pre-requisite: Completion of a college intermediate algebra course or two years of high school algebra. Lecture: 2.0 credits (30 contact hours).

Components: Lecture Same As Offering: MAT 154 Course Equivalents: MAT 155
Attributes: QR - Quantitative Reasoning

MAT 154(2) Course ID: 000552
Trigonometry
Includes trigonometric functions, identities, multiple analytic formulas, laws of sines and cosines, graphs of trigonometric functions, and inverse trigonometric functions. Pre-requisite: Completion of a college intermediate algebra course or two years of high school algebra. Lecture: 2.0 credits (30 contact hours).

Components: Lecture Same As Offering: MAT 154 Course Equivalents: MAT 155
Attributes: QR - Quantitative Reasoning

MAT 155(3) Course ID: 004563
Trigonometry
Includes 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.

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 191(3) Course ID: 001463
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 205(3) Course ID: 005622
Mathematics For Elementary and Middle School Teachers I
Introduces problem solving, number and numeration systems, whole numbers, integers, rational and irrational numbers, and elementary number theory. Requires demonstration of basic skills in mathematics to receive credit in this course. Pre-requisite: If yes, list: MAT 146 or MAT 150 or equivalent, with a minimum grade of "C". Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Other

MAT 206(3) Course ID: 005623
Mathematics For Elementary and Middle School Teachers II
Introduces probability and statistics; geometric concepts including congruence and similarity; and measurement. Required demonstration of basic skills in mathematics to receive credit in this course. Pre-requisite: MAT 146 or MAT 150 or equivalent, with a minimum grade of "C". Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Other

MAT 213(4) Course ID: 006894
Calculus III with Linear Algebra
Examines multivariate calculus. Includes partial differentiation, multiple integration, vector calculus, and selected topics from linear algebra including matrices, linear independence of vectors, linear transformations, characteristic values and vectors. Offered primarily for STEM majors. Pre-requisite: Successful completion of Calculus II. Lecture/Lab: 4.0 credits (75 contact hours).

Components: Lecture
Attributes: Other

MAT 214(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 higher. Lecture/Lab: 4.0 credits (75 contact hours).

Components: Lecture Course Equivalents: MAT 185
Attributes: QR - Quantitative Reasoning

MAT 225(3) Course ID: 000531
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).

Components: Lecture
Attributes: QR - Quantitative Reasoning

MAT 250(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).

Components: Lecture
Attributes: QR - Quantitative Reasoning

MAT 301(3) Course ID: 004557
Analytic Geometry and Trigonometry
Includes trigonometric functions, graphs of trigonometric functions, and inverse trigonometric functions, polar and parametric equations. Pre-requisite: MAT 174 with a grade of "C" or higher, 2. Math ACT 27 or above or placement exam recommendation.

Components: Lecture Course Equivalents: MAT 174
Attributes: QR - Quantitative Reasoning

MAT 302(3) Course ID: 005315
Calculus I
Includes 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 315(5) Course ID: 000531
Calculus I
Includes 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.
MAT 214(3)  Course ID:006895
Calculation 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's equations, Laplace transforms, and other operational methods. Primarily for STEM majors. Pre-requisite: Successful completion of Calculus III with Linear Algebra. Lecture: 3.0 credits (75 contact hours).
Components: Lecture

MAT 261(3)  Course ID:003966
Introduction to Number Theory
Investigates topics from classical number theory, including discussions of mathematical induction, primenumbers, division algorithms, congruences, and quadratic reciprocity. Pre-requisite: Consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning

MAT 275(4)  Course ID:005318
Calculus III
Examinates 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 165 or equivalent, or Consent of instructor. Lecture: 4 credits (60 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
Radical
Covers the conversion between radical and rational exponent form, simplification of radicals, performance operations with radicals, and the solution of equations involving radicals. Pre-requisite: MAT 0855. Lecture: 0.6 credits (9.0 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 855(0.3)  Course ID:007333
Quadratic
Includes solving quadratic equations with complex solutions using completing the square and the quadratic formula. Covers graphing parabolas by finding the vertex, finding the axis of symmetry, and plotting points. Pre-requisite: MAT 0854. Lecture: 0.3 credits (4.5 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 856(0.8)  Course ID:007334
Functions
Includes the evaluation of a function using function notation, determination of whether a given correspondence graph represents a function, determination of the domain of a function, and identification of the range of a function. Includes modeling and solving applications based on linear, quadratic, and exponential functions. Pre-requisite: MAT 0855. Lecture: 0.8 credits (12 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 1051(1.2)  Course ID:016652
Percent & Interest
Covers basic mathematical concepts as applied to finance. Includes percentages, simple and compound interest. Pre-requisite: MAT 062 or MAT 065 or equivalent as determined by KCTCS Placement Examination. Lecture: 1.2 credits (18 contact hours).
Components: Practicum

MAT 1052(0.9)  Course ID:016653
Annuities & Sinking Funds
Covers basic mathematical concepts as applied to finance. Includes annuities, sinking funds, installment buying, and credit cards. Pre-requisites: MAT 1051. Lecture: 0.9 credits (13.5 contact hours).
Components: Lecture

MAT 1053(0.9)  Course ID:016654
Mortgages & Depreciation
Covers basic mathematical concepts as applied to finance. Includes depreciation, consumer debt, and mortgages. Pre-requisite: MAT 1052. Lecture: 0.9 credits (13.5 contact hours).
Components: Lecture

MAT 1101(0.7)  Course ID:006142
Logic and Reasoning
Investigates concepts of logical symbolism, valid and invalid arguments. Uses applications throughout. 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
Calculate 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. Includes systems of equations. Students may not receive credit for both MAT 150 and any other College Algebra or Precalculus course. Credit not available on the basis of a special exam. Pre-requisite: Math ACT score of 22 or above. Successful completion of Intermediate Algebra or MAT 126 or equivalent; or KCTCS placement examination. 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 1501. Lecture: 0.8 credit (12 contact hours).
Components: Lecture
MAT 1503(0.8) Course ID:006148
Exponential and Logarithmic Functions (Exponential & Logarithmic Fct)
Develops manipulative skills and concepts of exponential and logarithmic functions required for further study in mathematics. Students may not receive credit for both MAT 150 and any other College Algebra or Precalculus course. Credit not available on the basis of a special exam. Pre-requisite: MAT 1502. Lecture: 0.8 credit (12 contact hours).
Components: Lecture

MAT 1504(0.6) Course ID:006149
Applications of Functions
Includes selected topics in algebra and analytic geometry. Develops manipulative skills and concepts required for further study in mathematics. Includes an introduction to analytic geometry. Students may not receive credit for both MAT 150 and any other College Algebra or Precalculus course. Credit not available on the basis of a special exam. Pre-requisite: MAT 1503. Lecture: 0.6 credit (9 contact hours).
Components: Lecture

MAT 1601(0.7) Course ID:016544
Graphing Techniques
Prepares students to enroll in a calculus sequence. Includes graphing techniques for functions and circles. Pre-requisite: One of the following: 1) Math ACT score of 23 or above; 2) Placement exam recommendation; or 3) Consent of instructor. Lecture: 0.7 credits (10.5 contact hours).
Components: Lecture

MAT 1602(0.9) Course ID:016545
Functions
Prepares students to enroll in a calculus sequence. Includes operations on polynomial and rational functions, combinations of functions, complex numbers, and the difference quotient. Pre-requisite: MAT 1601. Lecture: 0.9 (13.5 contact hours)
Components: Lecture

MAT 1603(0.9) Course ID:016546
Exponent and Log Functions
Prepares students to enroll in a calculus sequence. Includes the properties of inverse functions, specifically exponential and logarithmic functions. Pre-requisite: MAT 1602. Lecture: 0.9 (13.5 contact hours)
Components: Lecture

MAT 1604(0.9) Course ID:016547
Trigonometric Functions
Prepares students to enroll in a calculus sequence. Includes an introduction to trigonometric functions through the unit circle and through the right triangle. Pre-requisite: MAT 1603. Lecture: 0.9 credits (13.5 contact hours).
Components: Lecture

MAT 1605(0.9) Course ID:016548
Applications of Trigonometry
Prepares students to enroll in a calculus sequence. Includes applications of trigonometry including proving identities, solving equations, graphing, solving triangles, and using polar coordinates. Pre-requisite: MAT 1604. Lecture: 0.9 (13.5 contact hours).
Components: Lecture

MAT 1606(0.7) Course ID:016549
Conic Sections
Prepares students to enroll in a calculus sequence. Includes conic sections and solving systems of nonlinear equations. Pre-requisite: MAT 1605. Lecture: 0.7 credits (10.5 contact hours).
Components: Lecture

MAT 1701(0.6) Course ID:016157
Limits
Approximate limits graphically and numerically; evaluate limits analytically; list the conditions for the continuity of a function at a point; determine if a function is continuous or discontinuous at a point; determine the intervals of continuity of a function; and evaluate indefinite 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 absolute 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 the area under a curve and between two curves. Find the integral of functions using integrals for biological, social, and physical sciences or business. Pre-requisite: MAT 1704. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

MAT 1751(1) Course ID:016550
Limits
Examines limits in one-variable calculus. Pre-requisite: One of the following: 1) College Algebra and Trigonometry, or equivalent, with grades of “C” or higher; 2) MAT 1705 or above; 3) Placement exam recommendation; or 4) Consent of instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

MAT 1752(1) Course ID:016551
Differentiation Applications
Examines one-variable calculus differentiation of algebraic and trigonometric functions with applications. Pre-requisite: MAT 1752. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

MAT 1754(1) Course ID:016558
Integration
Examines integration of algebraic and trigonometric functions with applications in one-variable calculus. Pre-requisite: MAT 1753. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MAT 1755(1) Course ID:016559
Transcendental Functions
Examines differentiation and integration of exponential, logarithmic, hyperbolic, and inverse trigonometric functions with applications in one-variable calculus. Pre-requisite: MAT 1754. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

MAT 1851(1.2) Course ID:016560
Applications of Integration
Examines applications of integration including volumes of revolution, arc length, center of mass, and work. Pre-requisite: Calculus I, or equivalent, with grade of “C” or higher, or Consent of instructor. Lecture: 1.2 credits (18 contact hours).
Components: Lecture

MAT 1852(1.3) Course ID:016561
Advanced Integration Methods
Examines advanced integration techniques in one-variable calculus. Pre-requisite: Calculus I, or equivalent, with grade of “C” or higher. Consent of instructor. Lecture: 1.3 hours (19.5 contact hours)
Components: Lecture

MAT 1853(1.3) Course ID:016562
Sequences and Infinite Series
Examines sequences and infinite series. Pre-requisite: Calculus I, or equivalent, with grade of “C” or higher. Consent of instructor. Lecture: 1.3 credits (19.5 contact hours).
Components: Lecture
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
Mechatronic Systems Programmable Logic Controllers
Introduces the systems approach to the operation of Programmable Logic Control components and the relationship of their application in industrial systems. Provides an overview of Programmable 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 on federally-endorsed standards. Offers both entry-level and incumbent worker 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 Mechatronics and the operation of electrical, mechanical, pneumatic/hydraulic, and Programmable Logic Control components in an advanced manufacturing system. Presents an overview 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. Lecture/Lab: 3.0 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 Mechatronics/Advanced Manufacturing system. Applies concepts to a complete advanced manufacturing system wherein various subsystems are collectively used to build a more complex manufacturing system. Teaches students to troubleshoot 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: 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: 3.0 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 multitude of problems involved in typical electrical, mechanical, and/or 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: 6.0 credit hours (120 contact hours).

Components: Lecture
Attributes: Technical

MGT Management

MGT 101(3) Course ID:004992
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:004987
Personal Finance
Information needed to make intelligent choices and take effective action in the management of personal resources is provided. Topics include financial planning, buying, borrowing, saving, budgeting, investing, insurance, and taxes. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

MGT 160(3) Course ID:004899
Introduction to Business
Business careers, terminology, and the interrelationships and complexities of business are introduced and examined in this survey course. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical
MIT 219(3) Course ID:006970
Coding Exam Preparation
Prepared to design medical coding students to take a certifying exam to become a Professional Outpatient coder. Offers by AACP or AHCA: Includes outpatient coding cases and review of medical terminology, basic anatomy, basic presentation, reimbursement issues, and advanced coding guidelines for CPT, ICD-9-CM, and HCPCS coding systems. Pre-requisite: MIT 204 and MIT 205 or MBS 120. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

MIT 224(3) Course ID:016402
Medical Practice Management
Introduces students to medical practice management from roles of staff members in healthcare to skills and responsibilities of the manager in relation to compliance and regulatory agencies. It identifies the requirements of managing the revenue cycle, compliance regulations, human resources, health information, and other business processes. Pre-requisite Or Co-requisite: MIT 230, MIT 217, MIT 104. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

MIT 223(3) Course ID:004108
Medical Office Software
Provides a working knowledge of computer management software in a simulated medical office setting. Pre-requisite: (MIT 103 or AHS 115 or CLA 131) and Computer Literacy. Co-requisite: MIT 217. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

MIT 228(3) Course ID:006340
Electronic Medical Records
Provides a working knowledge of computerized medical record software used in a variety of healthcare facilities. Pre-requisite: MIT 217. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

MIT 230(3) Course ID:004109
Medical Information Management
Introduces and applies rules and regulations of medical filing systems and procedures. Emphasizes management of both hard copy and magnetic media using hierarchical, numeric, sequential, and color-coded filing systems. Concepts mastered for file retention and archiving. Discusses legal and ethical aspects of medical records. Pre-requisite Or Co-requisite: Computer Literacy Course. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

MIT 295(3) Course ID:008971
Medical Information Technology Capstone
Enhances the student's transition from class to work by providing unpaid learning activities related to the MIT field. Integrates work experience with academic instruction. Includes an internship, field experiences, and/or simulated work experiences in which the student applies previously or concurrently learned concepts to real-world work situations within the MIT field. Pre-requisite: Consent of Program Coordinator. Lecture: 1.0 credit (15 contact hours). Practicum: 2.0 credits (120 contact hours).

Components: Lecture, Practicum
Attributes: Technical

MIT 296(1 - 3) Course ID:007236
Medical Information Technology Internship
Enhances transition from school to work by providing non-paid work experience which provides the opportunity to apply acquired occupational skills in a realistic setting. Requires approval of the MIT Program Coordinator. Pre-requisite: Consent of Instructor. Pre-requisite: Consent of Program Coordinator. Practicum: 1.0 - 3.0 credits (45-135 contact hours).

Components: Practicum
Attributes: Technical

MIT 1031(1) Course ID:016393
Intro to Med Terms & Systems
Introduces medical terminology including root words, prefixes and suffixes as well as general medical terms. Introduces medical terms related to the skeletal, muscular, blood, lymph, cardiovascular, and respiratory systems. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

MIT 1032(1) Course ID:016394
Intermediate Body Systems
Introduces medical terms related to the blood, lymph, cardiovascular, respiratory, 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
Diagnostics and Pharmacology
Introduces the nervous, endocrine, reproductive systems as well as eyes and ears. Introduces medical terminology 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 130 or Equivalent. 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 2081(1) Course ID:016843
Diagnosis Coding
Examines diagnosis coding using current government mandated coding systems. Pre-requisite: MIT 2081 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

MIT 2082(1) Course ID:016852
Procedure Coding
Examines procedure coding using current government mandated coding systems. Pre-requisite: MIT 2081 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

MIT 2083(1) Course ID:016853
Coding Practice and Case Studies
Reinforces coding through practice and case studies in the inpatient hospital setting. Pre-requisite: MIT 2082 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

MIT 2171(1) Course ID:016847
Careers in the Medical Office
Analysis of professional and career opportunities in the medical office. Prepare for an interview and create employment communications. Pre-requisite OR Co-requisite: OST 110. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

MIT 2172(1) Course ID:016848
Records Management
Provides knowledge of records management and medical abbreviations and terminology in the medical office. Pre-requisite: MIT 2171. Pre-requisite OR Co-requisite: OST 110. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

MIT 2173(1) Course ID:016849
Admin and Financial Management
Provides knowledge of administrative responsibilities and financial administration in the medical office. Pre-requisite: MIT 2172. Pre-requisite OR Co-requisite: OST 110. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

MIT 2241(1) Course ID:016875
Managing the Medical Office
Emphasizes the healthcare setting, medical office communications, and human resource management. Pre-requisite OR Co-requisite: MIT 230, MIT 217, MIT 104. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

MIT 2242(1) Course ID:016876
Managing the Medical Record
Fascicles on the correct use, care, regulations and rules concerning medical records. Pre-requisite OR Co-requisite: MIT 2241, MIT 230, MIT 217, MIT 104. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

MIT 2243(1) Course ID:016877
Medical Office Revenue Cycle
Emphasizes accounting and payroll as well as marketing of the medical office. Pre-requisite OR Co-requisite: MIT 2242, MIT 230, MIT 217, MIT 104. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

MIT 2281(1) Course ID:016403
Intro to E-Health Records
Provides an introduction to electronic health records and gives students a working knowledge of industry-standard electronic medical records software program emphasizing ethical and regulatory issues and methods. Pre-requisite: MIT 227 or consent of instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

MIT 2282(1) Course ID:016404
Clinical Office Administration
Provides a working knowledge of computerized medical records software to simulate tasks including to create/maintain patient records and maintain office scheduling. Pre-requisite: 2281 or consent of instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

MIT 2283(1) Course ID:016405
Clinical Tools and Procedures
Provides a working knowledge of computerized medical records software to complete scenario based projects to use templates and create/analyze reports. Emphasizes test a diagnosis codes. Pre-requisite: 2282 or consent of instructor. Lecture: 1.0 credit (15 contact hours).
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.

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

MLT Medical Laboratory Technology

MLT 101(3) Course ID:004073
Introduction to the Clinical Laboratory
Includes an orientation to the laboratory and management structure, professional organizations, professional ethics, communication, and record keeping. Covers medical terminology and abbreviations, quality assurance procedures, laboratory safety rules and procedures, specimen processing, laboratory automation, and basic immunology. Introduces the student to the various laboratory departments. Pre-requisite: Admission into the MLT program or permission of the MLT Program Director or MLT Clinical Coordinator. Lecture/Lab: 3.0 credits (75 contact hours)

Components: Laboratory, Lecture
Attributes: Technical

MLT 112(2) Course ID:004177
Urinalysis
Focuses on methodology and clinical significance of urine chemical analysis, interference with chemical analysis procedures, screening methods used in diagnostic determinations, collection and handling of specimens, and the characteristics and clinical significance of formed elements of the urine. Includes the physiological function of the kidneys and diseases which affect the urinary system. Pre-requisite: Admission into the MLT program or permission of the MLT program director/coordinator. Pre-requisite Or Co-requisite: MLT101 or PHB 170. If taken as a pre-requisite, a minimum grade of “C”. Lecture/Lab: 2.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

MLT 207(2) Course ID:000282
Introduction to Clinical Diagnostic Microbiology
Reviews the basic concepts of bacterial cell structure, physiology, nomenclature and classification. Emphasizes safety in the microbiology laboratory and the care and use of medical and laboratory equipment. Introduces specimen processing as it relates to the microbiology department in the clinical laboratory. Covers the practical importance of identifying microorganisms and their relationship to disease. Lecture/Lab: 2.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

MLT 208(3) Course ID:006399
Clinical Diagnostic Microbiology I
Discusses the classical diagnostic procedures, disease processes, identification schemes, diagnostic characteristics, susceptibility testing, and isolation techniques of gram positive and gram negative microorganisms. This course is designed to familiarize the student with the laboratory diagnostic procedures of the laboratory. Lecture/Lab: 3.0 credits (75 contact hours).

Components: Lecture
Attributes: Technical

MLT 209(2) Course ID:006400
Clinical Diagnostic Microbiology II
Introduces the student to the study of anaeobes, spore forming gram positive bacilli, virology, mycobacterium, mycoplasma, streptococci, mycology and parasitology with focus on the clinical diseases and diagnostic procedures in the microbiology department.
of the clinical laboratory. Pre-requisite: MLT 209 with a grade of "C" or better OR permission of the MLT Program Director/MLT Clinical Coordinator. Lecture/Lab: 2.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

MLT 215(4) Course ID:004183
Hematology I
Covers hemostasis and classic methodologies of standard hematology procedures. Includes the principles of various automated hematology analyzers, histograms and scattergrams. Provides students with the opportunity to perform basic hematology and coagulation procedures, correlate laboratory data to aid in diagnosis, and deduce methodology of procedures and their clinical significance. Includes mechanisms of coagulation, routine coagulation testing, disease states associated with coagulation abnormalities, platelet evaluation, fibrinolysis and anticoagulant therapy. Pre-requisite: MLT 101 with a grade of "C" or greater and/or admission into the MLT program OR permission by MLT program coordinator. Lecture/Lab: 4.0 credits (105 contact hours).

Components: Lecture
Attributes: Technical

MLT 216(3) Course ID:004184
Hematology II
Continues study of hematology. Includes a study of anemias, leukemias, lymphomas, miscellaneous abnormal white blood cell disorders to assess hematologic changes and correlate laboratory data to diagnosis. Covers body fluids and other special hematologic procedures. Pre-requisite: MLT 215 with a grade of "C" or greater; permission by MLT program director/coordinator. Lecture: 2.0 credits (30 contact hours). Laboratory: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

MLT 217(3) Course ID:006401
Fundamentals of Hematology
Presents classic methodologies related to standard hematology procedures. Includes collection and processing of proper specimens, performance of quality control, and analysis of fundamental hematological parameters to aid in diagnosis. Pre-requisite: Admission into the MLT program OR permission of the MLT Program Director/MLT Clinical Coordinator. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical

MLT 218(4) Course ID:006402
Clinical Hematology
Continues the study of hematology. Includes hemostasis, anemias, leukemias, lymphomas, miscellaneous abnormal white blood cell disorders, body fluid analysis and other special hematological procedures. Pre-requisite: MLT 217 OR permission of the MLT Program Director/MLT Clinical Coordinator. Lecture/Lab: 4.0 credits (75 contact hours).

Components: Lecture
Attributes: Technical

MLT 225(2) Course ID:004185
Immunohematology I
Includes the principles of immunology in relation to blood banking, blood group systems, donor processing and screening, antibody screening, and blood components. Pre-requisite: MLT 101 with a grade of "C" or greater; admission into the MLT program; permission by MLT program director/coordinator. Lecture: 1.0 credit (15 contact hours). Laboratory: 1.0 credit (45 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

MLT 226(2) Course ID:004186
Immunohematology II
Includes antibody screening and panel interpretation, compatibility testing, viral markers and related disease states, hemolytic disease, and HLA markers. Pre-requisite: MLT 225 or Permission by MLT Program Director/Coordinator. Lecture/Lab: 2.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

MLT 227(4) Course ID:004570
Immunohematology
Covers principles and practices in blood banking, including topics such as blood group systems, blood components, antibody identification and compatibility testing. Pre-requisite: MLT 101 with a grade of "C" or greater; permission of MLT program director/coordinator. Lecture/Lab: 4 credits (105 contact hours).

Components: Lecture
Attributes: Technical

MLT 233(3) Course ID:004187
Clinical Chemistry I
Provides a review of basic inorganic chemistry and organic chemistry principles and types of instrumentation commonly used in a medical laboratory. Covers carbohydrates, non-protein nitrogen compounds, proteins, lipids and enzymes as related to clinical diagnosis. Introduces quality control procedures, including statistical calculations for graph preparation and interpretation of gathered data. Pre-requisite: MLT 201 with a grade of "C" or greater and admission into the MLT program) or MLT Program Coordinator/Director. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

MLT 234(2) Course ID:004188
Clinical Chemistry II
Presents the physiology and testing of liver function, hormones, electrolytes and acid-base metabolism. Includes toxicology and therapeutic drug monitoring, tumor markers, and special chemistries. Pre-requisite: MLT 201 with a grade of “C” or greater; permission by MLT program director/coordinator. Pre-requisite Or Co-requisite: MLT 233. If taken as a Pre-requisite, a minimum grade of "C". Lecture: 1.0 credit (15 contact hours). Laboratory: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

MLT 247(3) Course ID:006403
Introduction to Clinical Chemistry
Introduces the student to a variety of automated instrumentation and methodologies of selected chemistry test procedures. Exposes student to the basic principles as well as the techniques used in clinical chemistry to assess carbohydrates, non-protein nitrogen compounds, amino acids and proteins, lipids and lipoproteins, and endocytizes as related to clinical diagnosis. Acquaints the student with basic laboratory mathematics and quality assurance procedures utilized by the clinical laboratory department. Pre-requisite: Admission into MLT program OR permission of the MLT Clinical Coordinator/MLT Program Director. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical

MLT 248(3) Course ID:006404
Advanced Clinical Chemistry
Continues the study of clinical chemistry. Presents a study of lipids and lipoproteins, acid-base balance, electrolytes, endocrine system, liver, gastrointestinal and pancreatic function, therapeutic drug monitoring, and toxicology. Pre-requisite: MLT 247 with a grade of "C" or greater. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical

MLT 275(1) Course ID:006831
Clinical Experience
Familiarizes the student with the clinical laboratory environment as it relates to phlebotomy and front office responsibilities. Includes blood collection procedures, handling and answering internal phone calls, communication with and registration of patients, insurance filing and data entry. Pre-requisite: Admission into the MLT program or permission of the MLT program director or coordinator. Clinical: 1.0 credit (30 contact hours).

Components: Lecture
Attributes: Clinical

MLT 278(4 - 5) Course ID:004253
Practicum I
Develops performance skills and professional attitude in the student in assigned areas of the clinical laboratory. Utilizes and depends upon external institutions to ensure adequate clinical education and training. Each clinical laboratory affiliate has designated personnel to assist the student in all assigned areas of the clinical laboratory. Provides a prescribed schedule of rotations in various departments of the clinical laboratory for each individual student by the MLT Program Director. This practicum is designed to develop skills with strong supervisory instruction in all assigned departments. Pre-requisite: MLT 101 with a grade of "C" or better OR Admission into MLT program OR permission by MLT Program Director/Coordinator. Practicum: 4-5 credits (240-300 contact hours).

Components: Practicum
Attributes: Course Also Offered in Modules, Technical

MLT 279(4 - 5) Course ID:004254
Practicum II
Develops performance skills and professional attitude in the student in assigned areas of the clinical laboratory. Utilizes and depends upon external institutions to ensure adequate clinical education and training. Each clinical laboratory affiliate has designated personnel to assist the student in all assigned areas of the clinical laboratory. Provides a prescribed schedule of rotations in various departments of the clinical laboratory for each individual student by the MLT Program Director. This practicum is designed to develop skills with strong supervisory instruction in all assigned departments. Pre-requisite: MLT 101 with a grade of "C" or better OR Admission into MLT program OR permission by MLT Program Director/Coordinator. Practicum: 4-5 credits (240-300 contact hours).

Components: Practicum
Attributes: Course Also Offered in Modules, Technical

MLT 119(1.5) Course ID:005338
Applied Laboratory Part 1
Prepares the MLT student for clinical rotation into the major areas of the laboratory. Includes practicalexperience 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 119(2.5) Course ID:005339
Applied Laboratory Part 2
Prepares the MLT student for clinical rotation into the major areas of the laboratory. Includes practicalexperience 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 278(2 - 2.5) Course ID:005340
Practicum I Part 1
Develops performance skills and professional attitude in the student in assigned areas of the clinical laboratory. Utilizes and depends upon external institutions to 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 clinical laboratory for each individual student by the MLT program director. This practicum is designed to develop skills with strong supervisory instruction in all assigned departments. Pre-requisite: MLT 101 with a grade of "C" or greater and admission into the program. Practicum: 2.5 credits (150-150 contact hours).

Components: Practicum

MLT 278(2 - 2.5) Course ID:005341
Practicum I Part 2
Develops performance skills and professional attitude in the student in assigned areas of the clinical laboratory.
Utilizes and depends upon external institutions to ensure adequate clinical education and training. Each clinical laboratory affiliate has designated personnel to assist the student in assigned areas of the clinical laboratory. Provides a prescribed schedule of rotations in various departments of the laboratory for each individual student by the CLT program director. Pre-requisite: MLT 2791 with a grade of "C" or greater. Practicum: 2 - 2.5 credits (120-150 contact hours).

Components: Practicum

MLT 2791(2 - 2.5) Course ID:005342

Practicum II Part 1
Develops career entry level performance skills and professional attitude in the student in assigned areas of the clinical laboratory. Provides an opportunity for more responsibility and independence with previously learned procedures. Enhances the student's transition to the world of work by providing work experiences in acinical setting. Utilizes and depends upon external institutions to ensure adequate clinical education and training. Each clinical laboratory affiliate has designated personnel to assist the student in assigned areas of the clinical laboratory. Provides a prescribed schedule of rotations in various departments of the laboratory for each individual student by the CLT program director. Pre-requisite: MLT 101 with a grade of "C" or greater; OR admission to the CLT program. Practicum: 2 - 2.5 credits (120-150 contact hours).

Components: Practicum

MLT 2792(2 - 2.5) Course ID:005343

Practicum II Part 2
Develops career entry level performance skills and professional attitude in the student in assigned areas of the clinical laboratory. Provides an opportunity for more responsibility and independence with previously learned procedures. Enhances the student's transition to the world of work by providing work experiences in an clinical setting. Utilizes and depends upon external institutions to ensure adequate clinical education and training. Each clinical laboratory affiliate has designated personnel to assist the student in assigned areas of the clinical laboratory. Provides a prescribed schedule of rotations in various departments of the laboratory for each individual student by the CLT program director. Pre-requisite: MLT 2791 with a grade of "C" or greater. Practicum: 2 - 2.5 credits (120-150 contact hours).

Components: Practicum

MNA Medicaid Nurse Aid

MNA 100(3) Course ID:001772

Medicaid Nurse Aid
Provides knowledge and skills for nurse aides to assume the role and responsibility required in a long term care setting. Focuses on communication, infection control, safety, resident/patient rights, and basic nursing skills. Note: Faculty and clinical sites must comply with applicable Federal and Kentucky laws and regulations including but not limited to 42 USC 1396 and 907 KAR 1450. Lecture/ Lab: 3.0 credits (75 contact hours). (45:1ratio).

Components: Lecture Course Equivalents: NAA 100 Attributes: Technical

MNG Mining Technology

MNG 102(3) Course ID:007356
Introduction to Mine Engineering and Mining Technology
Provides orientation to the mining engineering and mining technology program. Includes introduction to key engineering activities and functions, mining methods and equipment, and health and safety subsystems. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

MNG 123(4) Course ID:000576
Mining Electricity I
Qualifies students to take the Mine Electrical Certification Exam administered by Kentucky Office of Mine Safety and Licensing. Includes topics of basic electric, 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:005266
Mining Electricity 1 Lab
Encompasses an elementary lab for mining technology students. Includes construction of circuits using electrical measuring instruments in the analysis of the circuits with focus on electrical safety. Emphasizes mining electrical equipment circuits, permissible and maintenance. 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 mines' rights, work environments, health and safety standards, roof control, mine ventilation, transportation, communication, compressed gas cylinders, explosives, mine gases and instruments, electrical hazards, accident prevention, and emergency procedures. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

MNG 161(1) Course ID:006647
Elements of Underground Mining Lab
Applies the principles and policies of mining methods, operations, and procedures in a controlled laboratory environment. Focuses on the skills associated with the information taught in the paired underground mining lecture course. Pre-requisite OR Co-requisite: MNG 160. Lab: 1.0 credit (30 contact hours).

Components: Laboratory Attributes: 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. Lecture: 2.0 credits (30 contact hours).

Components: Lecture Attributes: Technical

MNG 171(1) Course ID:006649
Elements of Surface Mining Lab
Applies the principles and policies of mining methods, operations, and procedures in a controlled laboratory environment. Focuses on the skills associated with the information taught in the paired lecture course for surface mining. Pre-requisite OR Co-requisite: MNG 170. Lab: 1.0 credit (30 contact hours).

Components: Laboratory Attributes: Technical

MNG 180(3) Course ID:006789
Environmental Issues in Mining
Introduces topics of how underground and surface mining operations impact the environment in a multitude of ways. Includes basic information related to geological formations in mining and structure of coal material. Relates methods to mitigate negative effects of mining. Discusses methods to repair damage to environment. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

MNG 185(3) Course ID:007371
Mining Permissibility
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, flanged joints, cables, and other areas of permissibility. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture Attributes: Technical

MNG 190(3) Course ID:005206
Mine Emergency Technician
Applies principles and procedures to identify and treat life threatening conditions. Offers safety training needed to receive a Mine Emergency Technician certificate from Kentucky Department of Mines and Minerals after successful completion of the optional test. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

MNG 265(3) Course ID:015854
Mining Methods
Introduces underground and surface mining methods and practices in coal and hard rock mines. Includes topics in method classification, support, safety and equipment requirements; general mine planning; sequence of development, cycle of operations and method application and variation. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

MNG 274(3) Course ID:000722
Mine Safety
Introduces mine safety, program organization, safety training, mine rescue operations, and the role of state and federal governments in mine safety. Includes field trips as an integral part of the course. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

MNG 286(3) Course ID:000738
Roof Control and Ventilation
Involves an in-depth study of roof and rib control, and coal mine ventilation. Includes methods of inspection and reporting potential safety hazards, reading roof control plans, processes and procedures involving mine resistance, law, and minimum standards. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

MNG 298(1 - 4) Course ID:006790
Selected Topics in Mining Technology: (Topic)
Addresses various mining technology topics, issues and trends. Includes topics that may vary from semester to semester as determined by the discretion of the instructors; course may be repeated with different topics to a maximum of 4 credit hours. Lecture/Lab: 1.0 - 4.0 credits (contact hours 15 - 120).

Components: Lecture Attributes: Technical

MOR Medical Office Radiology

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: AHS 109 and AHS 115 with a grade of C or better. Co-requisite: MOR 115. Lecture: 4.0 credits (60 contact hours). Lab: 2.0 credits (60 contact hours).

Components: Lab Laboratory, Lecture Attributes: Technical
MOR 115(3) Course ID:001775
Medical Office Limited Radiography Clinical
Apply the principles and procedures learned to afford the student the opportunity to observe, assist, and perform diagnostic radiographic examinations. Mandated by the State Radiation Control Board, the student shall accrue a total of 360 contact hours and perform the minimum of (50) radiographic examinations in each of the following areas: Chest, Extremities, and Musculoskeletal. Pre-requisite: AHS 109 and AHS 115 with a grade of C or better. Co-requisite: MOR 100 and MOR 115 with a grade of C or better. 
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 license. 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 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 Marine Technology
MRN 100(3) Course ID:006705
Intro to Marine Technology
Provides fundamental concepts of nautical science expected of personnel working aboard an inland towing vessel. Includes basic terminology, types of equipment encountered aboard the vessel, skill sets needed in day-to-day operations, and a general knowledge of towboat operations. Pre-requisite: Instructor consent. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules, Technical
MRN 101(3) Course ID:006706
Anatomy of a Towboat
Introduces components found on modern towboats with emphasis on an overview of all 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 compensated on-the-job experience under the supervision of a qualified affiliate of the industry. Pre-requisite: 360 hours of industry experience. Co-requisite: Current employment with the company providing the co-op experience. Co-op: 6 credits (450 contact hours).
Components: Co-op Attributes: Technical
MRN 200(3) Course ID:006709
Shipboard Deck Operations
Provides 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 interpretation of the rules. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical
MRN 202(3) Course ID:006711
Piloting and Navigation
Identifies the effect of inland waterway prevailing conditions on vessels; provides instruction on lock operations, radio telephone regulations, hydrology, and piloting skills. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical
MRN 203(3) Course ID:006712
Environmental Protection Rules
Provides analysis of environmental regulations governing the marine industry. Explores the environmental practices of vessels on the inland waterway systems and the governing agencies which establish industrylegislation. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules, Technical
MRN 204(5) Course ID:006713
Marine Electrical Systems
Explores and applies the theory of electricity with an emphasis on power systems, circuits, safety procedures, and maintenance measures needed to maintain electrical systems aboard towing vessels. Lecture/Lab: 5.0 credits (105 contact hours).
Components: Lecture Attributes: Technical
MRN 205(3) Course ID:006714
Marine Electrical Systems II
Explores the maintenance measures needed to maintain electrical systems aboard towing vessels on the inland water 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 operating system. Lecture/Lab: 5 credits (105 contact hours).
Components: Lecture Attributes: Technical
MRN 207(3) Course ID:006716
Marine Diesel II
Introduces the various systems involved in the operation of a marine diesel engine, including the application of the knowledge of diesel operation to maintenance and troubleshooting exercises. Pre-requisite: MRN 206. Lecture/Lab: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical
MRN 208(3) Course ID:006717
Inland River Systems
Explores the U.S. inland waterway system and its tributaries as they relate to the inland marine industry and the movement of cargos. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical
MRN 212(3) Course ID:007414
Marine Fluid Systems
Incorporates practical experience in fluid power theory, component identification and application, schematics, and basic calculations related to marine fluid systems. Lecture/Lab: 5.0 credits (105 contact hours).
Components: Lecture Attributes: Technical
MRN 299(6) Course ID:006720
Marine Co-Op Experience II
Gives students further experience in a higher level position in the marine industry. Provides supervised on-the-job work experience directly in line with the students' educational objective. Pre-requisite: MRN 199. Co-requisite: Current employment with the company providing the co-op experience. Co-op: 6 credits (450 contact hours).
Components: Co-op Attributes: Technical
MRN 1001(1) Course ID:015787
Marine Terminology and Safety
Provides fundamental terminology and safety concepts expected of personnel working aboard an inland towing vessel. Includes basic terminology, types of equipment encountered aboard the vessel, skill sets needed in day-to-day operations, and a general knowledge of towboat operations. Pre-requisite: Instructor Consent. Lecture: 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: Instructor Consent. Lecture: 1.0 credit (15 contact hours).
Components: Laboratory
MRN 1003(1) Course ID:015789
Marine Operations & Equipment
Introduces the responsibilities of the engineering department and systems on board an inland towing vessel. Pre-requisite: MRN 1002. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
MRN 1011(1) Course ID:015790
Basic Towboat Design
Introduces components found on modern towboats with emphasis on towboat design and arrangement of equipment. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
MRN 1012(1) Course ID:015791
Wheelhouse Equipment
Introduces basic arrangement of wheelhouse equipment and use. Pre-requisite: MRN 1011. Lecture: 1.0 credit (15 contact hours).
Components: Laboratory
MRN 1013(1)  Course ID:015792  Mechanical Support Systems  Introduces mechanical support equipment aboard an inland towing vessel. Pre-requisite: MRN 1012. Lecture: 1 credit (15 contact hours).  Components: Lecture

MRN 1012(1)  Course ID:015793  Marine Safety  Introduces risk-based assessment and decision making factors for marine safety on an inland marine vessel. Lecture: 1 credit (15 contact hours).  Components: Lecture

MRN 1032(1.5)  Course ID:015796  Maritime Weather  Introduces maritime weather as it relates to voyages. Pre-requisite: MRN 1031. Lecture: 1.5 credits (22.5 contact hours).  Components: Lecture

MRN 1041(1.5)  Course ID:015797  Crew Wellness  Examines how nutrition, exercise, and disease affect the crewmember’s ability to maintain a U.S. Coast Guard license. Lecture: 1.5 credits (22.5 contact hours).  Components: Lecture


MRN 2011(1.5)  Course ID:016382  History of Navigation Rules  Provides an in-depth analysis of the history and effects developmental changes have on navigational rules. Lecture: 1.5 credits (22.5 contact hours).  Components: Lecture

MRN 2021(1)  Course ID:016384  River Conditions  Identifies the effect of inland waterway prevailing conditions on vessels and hydrology. Lecture: 1 credit (15 contact hours).  Components: Lecture

MRN 2023(1)  Course ID:016386  Piloting  Provides instruction on locking procedures, radio telephone regulations and piloting skills. Pre-requisite: MRN 2022. Lecture: 1 credit (15 contact hours).  Components: Lecture

MRN 2031(1)  Course ID:015799  Environmental Regulations I  Provides an analysis of environmental regulations governing the marine industry. Lecture: 1.0 credit (15 contact hours).  Components: Lecture

MRN 2032(1)  Course ID:015800  Environmental Regulations II  Provides analysis of Marine Pollution Convention and the National Pollution Discharge Elimination System. Pre-requisite: MRN 2031. Lecture: 1.0 credit (15 contact hours).  Components: Lecture

MRN 2033(1)  Course ID:015801  Environmental Regulations III  Explores the environmental 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  Introduces the theory of electricity with an emphasis on power systems, circuits, and safety procedures needed to maintain electrical systems aboard towing 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 maintenance measures needed to maintain electrical systems aboard towing vessels. Pre-requisite: MRN 2041. Lecture/Lab: 1.67 credits (35 contact hours).  Components: Lecture

MRN 2063(2)  Course ID:016392  Marine Diesel Theory  Introduces the operation and components of a marine diesel engine with emphasis on diesel engine theory. Pre-requisite: MRN 2062. Lecture/Lab: 2.0 credits (45 contact hours).  Components: Lecture

MRN 2081(1)  Course ID:016408  Intro to Inland River Systems  Explores the U.S. inland waterway system and its tributaries for the lower Mississippi river region as they relate to the inland marine industry and the movement of cargos. Lecture: 1 credit (15 contact hours).  Components: Lecture

MRN 2082(1)  Course ID:016410  Upper Mississippi River System  Explores the U.S. inland waterway system and its tributaries for the upper Mississippi river region as they relate to the inland marine industry and the movement of cargos. Pre-requisite: MRN 2081. Lecture 1 credit (15 contact hours).  Components: Lecture

MRN 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/Lab: 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/Lab: 1.67 (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 100(4)  Course ID:003986  Massage Therapy  Provides extensive knowledge of the skeletal system and major joint articulations and an introduction to themuscular system of the human body from beginning terminology through the study of muscle tissue and neuromuscular fundamentals. Pre-requisite Or Co-requisite: (CLA131 or OST103 or AHS115). Co-requisite: MSG 125. Lecture: 4 credits (60 contact hours).  Components: Lecture  Attributes: Other, University Course (University of Kentucky)

MSG 110(4)  Course ID:003987  Musculoskeletal Anatomy and Physiology II  Details muscular interactions at major joint articulations including biomechanical concepts and muscles, joints, and innervations of the upper and lower extremities. Pre-requisite: MSG 125. Pre-requisite Or Co-requisite: MSG135. Lecture: 4 credits (60 contact hours).  Components: Lecture  Attributes: Technical

MSG 117(4)  Course ID:016866  Musculoskeletal Anatomy & Physiology I  Introduces the skeletal system and major joint articulations. Integrates the skeletal system with the muscularsystem, beginning with basic terminology and advancing to the fundamental connection with muscle and neuromuscular tissue. Pre-requisite: AHS 115 or CLA 131 or MIT 103. Lecture/Lab: 4.0 credits (90 contact hours).  Components: Lecture  Attributes: Technical

MSG 119(4)  Course ID:016867  Musculoskeletal Anatomy & Physiology II  Details muscular interactions at major joint articulations including biomechanical concepts. Expands students' abilities to locate and affect muscles, joints, and innervations of the upper and lower extremities. Pre-requisite: MSG 125. Pre-requisite Or Co-requisite: MSG135. 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 systemic Swedish massage. Co-requisite: MSG 100. Lecture: 1.0 credit (15 contact hours), Lab: 2.0 credits (60 contact hours).  Components: Laboratory, Lecture  Attributes: Technical
MSG 132(3) Course ID:016868
Massage Techniques I
Introduces theory and technique of Swedish Massage, including the history and benefits of massage, scope of practice, and performance of a one-hour full body systemic Swedish massage. Co-requisite: MSG 117. Lecture/Lab: 3.0 credits (105 contact hours).
Components: Lecture
Attributes: Technical
MSG 134(3) Course ID:016869
Massage Techniques II
Extends students’ knowledge of the skeletal system and major joint articulations. Introduces the muscles and their systems of the body, beginning with basic terminology and advancing through the fundamentals of musculneuromuscular tissue and joint mechanics. Enhances the students’ skills for delivering an improved one-hour full body therapeutic massage. Pre-requisite: MSG 132. Lecture/Lab: 3.0 credits (105 contact hours).
Components: Lecture
Attributes: Technical
MSG 135(3) Course ID:003991
Massage Techniques III
Provides extensive knowledge of the skeletal system and major joint articulations and an introduction to the musculoskeletal system of the human body from beginning terminology through the study of muscle tissue and neuromuscular fundamentals. Pre-requisite: MSG 100 and MSG 125. Lecture: 1.0 credit (15 contact); Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
MSG 205(3) Course ID:005521
Advanced Clinical Massage I
Prepares the student in the knowledge and skills of advanced massage techniques and integrating them in an applied clinical setting. Co-requisite: MSG110. Lecture: 1.0 credit (15 contact hours), Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
MSG 210(3) Course ID:005526
Advanced Clinical Massage II
Prepares students to integrate their massage practice into a clinical setting of rehabilitation of orthopedic conditions and injuries. Includes patient assessment, advanced orthopedic, and rehabilitative and preventative massage techniques. Pre-requisite: MSG205. Lecture: 1.0 credit (15 contact hours), Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
MSG 215(2) Course ID:003993
Massage Therapy Student Clinic
Applies principles and techniques by providing students with experience through a student massage clinic. Co-requisite: MSG 210. Lab: 2.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical
MSG 220(3) Course ID:005522
Massage Therapy Pathology
Prepares students to recognize and know common pathologies that they may encounter as a massage therapist. Covers pathologies directly linked to the biological systems of the body. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
MSG 232(3) Course ID:016870
Advanced Clinical Massage I
Prepares the student to integrate the knowledge and skills of advanced massage techniques into a clinical setting. Pre-requisite: MSG 134. Lecture/Lab: 3.0 credits (105 contact hours).
Components: Lecture
Attributes: Technical
MSG 234(3) Course ID:016873
Advanced Clinical Massage II
Prepares students to integrate their massage practice into a clinical setting, including the rehabilitation of orthopedic conditions and injuries. Expands the students’ involvement in patient assessment, advanced orthopedics, and the use of rehabilitative and preventative massage techniques. Pre-requisite or co-requisite: MSG 232. Lecture/Lab: 3.0 credits (105 contact hours).
Components: Lecture
Attributes: Technical
MSG 286(3) Course ID:016874
Massage Therapy Student Clinic
Enhances the student’s experiences in the operation of a Massage Therapy business by their active participation in all aspects of a student-run business, including marketing, managing schedules and resources, and performing Massage services. Pre-requisite: MSG 134. Lecture/Lab: 3.0 credits (135 contact hours).
Components: Lecture
Attributes: Technical
MSG 287(1 - 6)
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 concepts. Topics 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: 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 hydraulic or pneumatic components and the relationship of their operation in industrial systems. Provides an overview of digital and analog 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.
Components: Lecture
Attributes: Technical
MST 201(2) Course ID:001779
Advanced Hydraulic Systems Lab
The advanced hydraulic systems lab will cover design, repair, and troubleshooting of hydraulic systems. Pre-requisite: FPX 100, FPX 101.
Components: Laboratory
Attributes: Technical
MST 204(3) Course ID:001780
Advanced Pneumatic Systems
Design, repair, and troubleshooting of pneumatic systems will be covered in this course. Pre-requisite: FPX100, FPX 101.
Components: Lecture
Attributes: Technical
MST 205(2) Course ID:001781
Advanced Pneumatic Systems Lab
Component repair and system troubleshooting will be covered in this lab. Pre-requisite: FPX 100, FPX 101.
Components: Laboratory
Attributes: Technical
MSY 215(3) Course ID:001661
Masonry Lab
Provides for practice and application of principles, theories and skills taught in MSY 105, MSY 115, MSY 205. Pre-requisite: MSY 105 and MSY 115 and MSY 205 with a grade of “C” or higher or Consent of Instructor. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory.
Attributes: Technical

MSY 225(3) Course ID:001662
Brick Construction
Covers the application of laying brick to a line overhand, laying a rowlock course, and making weep holes. Emphasizes tying intersecting walls with masonry ties and construction cavity walls and planters. Pre-requisite: MSY 205 with a grade of “C” or higher or Consent of Instructor. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory.
Attributes: Technical

MSY 235(3) Course ID:001663
Special Techniques in Brick Construction
Provides practice in constructing a variety of walls including arches. Pre-requisite: MSY 205 with a grade of “C” or higher or Consent of Instructor. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory.
Attributes: Technical

MSY 245(3) Course ID:001664
Anchors and Reinforcement
Presents different types of reinforcement used in masonry units such as installing wall ties and reinforcing wire, tying intersecting walls with metal ties, installing masonry anchor bolts, setting and anchoring door and window frames, and setting steel lintels and bearing plates. Covers the installation of dovetail ties toconcrete, setting preformed masonry lintels, and laying of paving brick in a herringbone pattern. Pre-requisite: MSY 105 with a grade of “C” or higher or Consent of Instructor. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory.
Attributes: Technical

MSY 291(1 - 3) Course ID:001670
Masonry Applications
Provides students with additional opportunity to refine skills. Lab: 1.0 - 3.0 credits (45-135 contact hours).
Components: Laboratory.
Attributes: Technical

MSY 298(3) Course ID:001671
Instructor Consent Required
Practicum Practicum II
Provides additional supervised on-the-job work experience related to the student’s educational objectives. Students participating in the Practicum do not receive compensation. Pre-requisite: Consent of Instructor. Practicum: 3.0 credits (90 contact hours).
Components: Practicum.
Attributes: Technical

MSY 299(3) Course ID:001672
Instructor Consent Required
Cooperative Education II
Provides additional supervised on-the-job work experience related to the student’s educational objectives. Students participating in the Co-op Education program receive compensation for their work. Pre-requisite: Consent of Instructor. Co-op: 3.0 credits (90 contact hours).
Attributes: Technical

MTT Machine Tool Technology
MTT 216(8) Course ID:005456
Machining Techniques for Manufacturing
Provides skills and knowledge needed to progress through the Tool and Die program. Includes safety, bench workand machining operations performed on die and mold applications. Lecture: 1 credit (15 contact hours). Laboratory: 7 credits (210 contact hours).
Components: Laboratory.
Attributes: Technical

MU Music
MU 101(3) Course ID:000910
Folk and Traditional Music of the Western Continents
Designed for non-music majors. The primary purpose of the course is to survey the body of music called folk, or ‘traditional,’ as it is found in Europe, most of Africa, and the Americas, from a geographic approach. Lecture: 3 hours.
Components: Lecture.
Attributes: Cultural Studies, AH - Arts and Humanities

MUC Class Instruction in Music
MUC 175(1) Course ID:002238
Instructor Consent Required
Jazz Ensemble
The study of jazz performance technique and jazz literature through the participation in a jazz ensemble. Can be repeated for a total of 4 credits. Laboratory: 1 credit (3 contact hours). Pre-requisite: Consent of Instructor.
Components: Laboratory.
Attributes: Technical, University Course (University of Kentucky)

MUC 190(1) Course ID:005593
Instructor Consent Required
Marching Band
Preparation for and performance at university athletic functions, primarily football games. May be repeated to a maximum of four credits. Pre-requisite: Audition and permission of the instructor. Lab: 1 credit (45 contact hours).
Components: Laboratory.
Attributes: Other, University Course (University of Kentucky)

MUP Music Performance
MUP 101(1 - 3) Course ID:002242
Instructor Consent Required
Piano
Students enrolled in MUP courses for two or more credit hours may be required to attend performance classes as well as lessons. Pre-requisite: Satisfactory audition and/or approval of instructor.
Components: Laboratory.
Attributes: Other

MUP 102(1 - 3) Course ID:002243
Instructor Consent Required
Voice
Students enrolled in MUP courses for two or more credit hours may be required to attend performance classes as well as lessons. Pre-requisite: Satisfactory audition and/or approval of instructor.
Components: Laboratory.
Attributes: Other

MUP 111(1 - 3) Course ID:002245
Instructor Consent Required
Classical Guitar
Students enrolled in MUP courses for two or more credit hours may be required to attend performance classes as well as lessons. Pre-requisite: Satisfactory audition and/or approval of instructor.
Components: Laboratory.
Attributes: Other

MUP 123(1 - 3) Course ID:002246
Instructor Consent Required
Piano
Students enrolled in MUP courses for two or more credit hours may be required to attend performance classes as well as lessons. Pre-requisite: Satisfactory audition and/or approval of instructor.
Components: Laboratory.
Attributes: Other

MUP 124(1 - 3) Course ID:002247
Instructor Consent Required
Voice
Students enrolled in MUP courses for two or more credit hours may be required to attend performance classes as well as lessons. Pre-requisite: Satisfactory audition and/or approval of instructor.
Components: Laboratory.
Attributes: Other

MUP 201(1 - 3) Course ID:002248
Instructor Consent Required
Piano
Students enrolled in MUP courses for two or more credit hours may be required to attend performance classes as well as lessons. Pre-requisite: Satisfactory audition and/or approval of instructor.
Components: Laboratory.
Attributes: Other

MUP 214(1 - 3) Course ID:006460
Instructor Consent Required
Trombone II
Continues the systematic study of trombone performance through an individualized course of study. May be repeated for a total of 4 credits. Pre-requisite: Consent of Instructor. Laboratory: 1.0 - 3.0 credits (7.5 - 22.5 contact hours).
Components: Laboratory.
Attributes: Other

MUP 223(1 - 3) Course ID:003978
Instructor Consent Required
Classical Guitar (Second Level)
Students enrolled in MUP courses for two or more credit hours may be required to attend performance classes as well as lessons. Pre-requisite: Satisfactory audition and/or approval of instructor.
Components: Laboratory.
Attributes: Other
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course ID</th>
<th>Title</th>
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<tbody>
<tr>
<td>MUS 100(3)</td>
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<td>Introduction to Music</td>
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<td>MUS 104(3)</td>
<td>004548</td>
<td>Introduction to Jazz History</td>
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<td>MUS 106(3)</td>
<td>006188</td>
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<td>MUS 113(1)</td>
<td>008900</td>
<td>Class Instruction in Guitar I</td>
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<td>MUS 114(1)</td>
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<tr>
<td>MUS 120(3)</td>
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<td>MUS 121(3)</td>
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<td>MUS 150(1)</td>
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<td>Instructor Consent Required Voice Class for Non-Music Majors</td>
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<td>MUS 157(3)</td>
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<td>MUS 174(3)</td>
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<td>MUS 175(1)</td>
<td>006791</td>
<td>Instructor Consent Required Jazz Ensemble</td>
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<tr>
<td>MUS 187(1)</td>
<td>008239</td>
<td>Instructor Consent Required Concert Band</td>
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<td>MUS 192(1)</td>
<td>002237</td>
<td>Instructor Consent Required University Chorus</td>
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<tr>
<td>MUS 206(3)</td>
<td>000857</td>
<td>American Music History</td>
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<tr>
<td>MUS 207(3)</td>
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<td>MUS 222(3)</td>
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<tr>
<td>MUS 223(3)</td>
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<td>Music for Elementary Teachers</td>
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<tr>
<td>MUS 260(2)</td>
<td>000892</td>
<td>Teaching Music in the Elementary Grades I</td>
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<tr>
<td>MUS 261(2)</td>
<td>000899</td>
<td>Teaching Music in the Elementary Grades II</td>
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</tbody>
</table>
musical materials appropriate for elementary-aged children. Introduces methods of integrating music across the elementary curriculum. Should be taken immediately following completion of MUS 260. Pre-requisite: MUS 260. Lecture/Lab: 2.0 credits (45 contact hours). Components: Lecture Attributes: Other

MUS 298(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 tonalidiadic composers, music genres, defined eras, and applied skills. Topics may vary from semester to semester at the discretion of the instructor. Pre-requisite: MUS 100 or consent of the instructor. Lecture: 1-3 credits (15-45 contact hours).
Components: Lecture
Attributes: Other

NAA 100(1) Course ID:015802
Elements through Renaissance
Introduces the elements of music as they apply to the listening experience. Emphasizes the development of awareness and understanding of musical styles from the Middle Ages and Renaissance. Designed for thomus-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

NAA 102(3) Course ID:006887
Basic Health Unit Coordinating
Presents the duties and responsibilities of the health unit coordinator with an emphasis on communicationskills, 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 healthcare settings. Builds upon MNA 100/NAA 100 and prepares the student to perform advanced nursing assistant skills. Pre-requisite: (MNA 100 or MNA 101) with a grade of 'C' or above within one year or ActiveStatus 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: Other

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

NAA 1001(2) Course ID:006250
Long Term Care Nurse Aide
Provides knowledge and skills for nurse aides to assume the role and responsibility required in a long term care setting. Focuses on communication, infection control, safety, resident/patient rights, and basic nursingskills. Note: Faculty and clinical sites must comply with applicable Federal and Kentucky laws and regulations including but not limited to 42 USC 1396r and 907 KAR 1:450. Lecture/Lab: 6.0 credits (150 contact hours).
Components: Lecture
Attributes: Technical

NAA 1002(0.56) Course ID:006251
Nurse Aide Skills Laboratory
Includes the laboratory component for application of skills and concepts taught in the nurse aide program. Pre-requisite: NAA 1001. Lab: .56 credit (25.0 contact hours).
Components: Laboratory

NAA 1003(0.44) Course ID:006252
Nurse Aide Clinical Rotation
Includes the required supervised practical training component. Provides a working knowledge of theopharmacological, 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 1021(1) Course ID:016420
Health Unit Management
Presents health unit coordinator duties and responsibilities regarding confidentiality and legal and ethicalissues. 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 humans, growth, reproduction, lactation, wellness, and physicalactivity. Not open to NFS majors except hospitality management students.
Components: Lecture
Attributes: Other

NFS 125(1) Course ID:005024
Compliance With National Fuel Gas Code
A continuation of safety information unique to the 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

NGT Natural Gas Technology

NGT 100(1.25) Course ID:006446
Basic Procedures/Processes
Presents the major components of a natural gas system from well head to burner. Presents actions that each component has on the gas stream in the context of the total system. Reviews key terms and definitions applied to conditions common to the utilization of natural gas. Lecture: 0.25 credits (3.75 contact hours).
Components: Lecture

NGT 1002(0.25) Course ID:006447
Basic Properties of Fuel Gases
Presents advanced procedures for extracting natural gas from the earth and for transporting and regulating natural gas with an emphasis on the physical and chemical properties of natural fuel gases. Lecture: 0.25 credits (3.75 contact hours).
Components: Lecture

NGT 1003(0.75) Course ID:006448
Adjusting Gas Burners
Presents the science of gas burner design, factors affecting the proper combustion of fuel gas, and techniques to measure gas input rates, gas flow, and pressure. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 1004(0.75) Course ID:006449
Regulating Natural Gas
Presented factors related to measurement of natural gas in a distribution system, pressure regulation, accurate measurement of natural gas, and irregularities in meter installations. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 1005(0.5) Course ID:006450
Gas Distribution Calculations
Presents methods for calculating area and volume
measurements, gas flow rate measurements and heating values, venting and ventilation requirements for proper burning of natural gas, and comparing fuel costs.

Components: Lecture

NGT 1006(0.5) Course ID:006451

Records & Compliance Reports

Focuses on U.S. Department of Transportation reporting requirements, reading maps of 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 fires, and ways to extinguish natural gas fires. Lecture: 0.25 credits (3.75 contact hours); Lab: 1.0 credits (30 Contact hours).

Components: Laboratory, Lecture

NGT 1102(0.75) Course ID:006461

Safe Working Environment

Emphasizes work safety practices, proper use of equipment, hazards of escaping gas, and drug testing and rehabilitation programs. Lecture: 0.25 credits (3.75 contact hours), Laboratory: 0.5 credits (15 contact hours).

Components: Laboratory, Lecture

NGT 1103(0.5) Course ID:006462

Preventing Accidental Ignition

Identifies 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 repair, and proper installation and operation. 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 hazardous information from labels and material safety data sheets and methods used to work safely with toxic chemicals and hazardous materials. Lecture: 25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).

Components: Laboratory, Lecture

NGT 1501(0.5) Course ID:006453

Gas-in-Air Mixture

Focuses on detecting the presence of and measuring the percent of gas in a gas-in-air mixture. Lecture: 0.5 credits (7.5 contact hours).

Components: Lecture

NGT 1502(0.5) Course ID:006454

Gas Leaks/Odors

Presents basic facts about natural gas and natural gas leaks with emphasis on responding to gas leak and odors 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

Pilot/ 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 investigating carbon monoxide. Lecture: 0.25 credits (3.75 contact hours).

Components: Lecture

NGT 1601(0.75) Course ID:006469

Establishing a Gas Service

Presents methods used when establishing a gas service with emphasis piping from the main to customer’s piping, piping inside buildings, and gas-operated equipment in service. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).

Components: Laboratory, Lecture

NGT 1602(0.75) Course ID:006470

Odorant Levels

Presents federal and Kentucky standards for proper odorant levels with emphasis on monitoring odorant levels. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).

Components: Laboratory, Lecture

NGT 1603(0.75) Course ID:006471

Installing Domestic Service

Presents US Department of Transportation and industry-recognized procedures for installing domestic gas service. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).

Components: Laboratory, Lecture

NGT 1604(0.75) Course ID:006472

Purging Techniques

Presents the theory and techniques common to purging natural gas lines, including safe practices and isolation of equipment during purging. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).

Components: Laboratory, Lecture

NGT 1701(0.5) Course ID:006473

Gas-Operated Appliances

Presents procedures for checking natural gas appliance systems to ensure proper installation and safe operation. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).

Components: Laboratory, Lecture

NGT 1702(0.5) Course ID:006474

Servicing Gas Equipment

Presents factors related to the ventilation process, standards to ensure proper combustion and ventilation for gas-operated equipment, and ventilation inspection of gas-operated equipment. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).

Components: Laboratory, Lecture
NGT 1903(0.5)  Course ID:006485
Abandon/Deactivate Facilities
Presents processes and procedures for deactivating/abandoning gas facilities. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1904(0.5)  Course ID:006486
Cast Iron Pipe
Presents details and procedures for repairing cast iron pipe, emphasizes protection of cast iron pipe while excavating. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1905(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), Lab: 0.5 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 2001(0.75)  Course ID:006488
Tapping/Stopping Pipelines
Presents techniques used to safely tap and stop pipelines under pressure. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 2002(0.75)  Course ID:006489
Pipeline Pigging
Presents techniques basic to pigging pipelines. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 2003(0.75)  Course ID:006490
Purging Techniques
Presents factors affecting the mechanical nature of displacing one gas with another gas by purging. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 2004(0.75)  Course ID:006491
Tie-In/Bypass Operations
Presents procedures for installing tie-in/bypass operations. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 2051(0.5)  Course ID:006492
Corrosion Control
Presents the characteristics of corrosion, conditions causing corrosion in buried metal piping, and processes and procedures basic to corrosion control. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2052(0.5)  Course ID:006493
Installing Cathodic Systems
Presents procedures for installing cathodic protection systems. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2053(0.5)  Course ID:006494
Testing Corrosion Systems
Presents methods for monitoring and testing corrosion control systems. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2054(0.5)  Course ID:006495
Monitoring Corrosion Control
Presents information and techniques for monitoring corrosion control methods on buried metal pipelines. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2101(1)  Course ID:006496
Principles of Electricity
Presents the basics of both D.C. and A.C. electrical theory with an emphasis on current flow designs. Lecture: 1 credit (15 contact hours).
Components: Lecture

NGT 2102(1)  Course ID:006497
Rectifier Components
Presents the theory and practice of identifying and testing typical rectifier components with emphasis on the identification of rectifying circuits, rectifier selection methods, and specialized types of rectifiers. Lecture: 0.50 credits (7.5 contact hours), Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 2103(1)  Course ID:006498
Rectifiers
Presents information and techniques for putting cathodic protection rectifier systems into service. Lecture: 0.5 credits (7.5 contact hours), Lab: 0.5 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 2201(0.5)  Course ID:006499
Gas Measurement
Presents concepts and principles basic to gas measurement; demonstrates the effects of gas pressure and temperature on gas measurement using mathematical calculations; reviews the operating principles of diaphragm, rotary and turbine meters used to measure gas. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NGT 2202(1)  Course ID:006500
Maintaining Line Valves
Presents the basic operating principles and maintenance schedules of gas flow control valves; demonstrates proper use and care of high-pressure grease guns. Lecture: 0.5 credits (7.5 contact hours), Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 2203(0.5)  Course ID:006501
Pipeline Heaters
Presents the operation procedures and maintenance of catalytic and water bath indirect pipeline heaters. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NGT 2204(0.5)  Course ID:006502
Proper Odorant Levels
Presents the industry standards and devices used to introduce odorants into a natural gas system; emphasizes testing for odorant levels and the proper handling of odorants. Lecture: 0.25 credits (7.5 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2205(0.5)  Course ID:006503
Dew Point of a Gas
Covers theory and practice used to test the dew point of a gas; explains methods used to test moisture in gas. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2301(0.5)  Course ID:006504
Orifice Meters
Presents operating principles of orifice meters; emphasizes the identification of the meter components and their functions in the measurement process. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NGT 2302(0.5)  Course ID:006505
Turbine Meters
Presents operating principles of turbine type meters; emphasizes the identification of the meter components and their functions in the measurement process. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NGT 2303(0.5)  Course ID:006506
Diaphragm Meters
Presents operating principles of diaphragm-type meters; emphasizes the identification of the meter components and their functions in the measurement process. Lecture: 0.5 credits (7.5 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: 0.5 credits (7.5 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2305(0.5)  Course ID:006508
Pressure Relief Valves
Presents purpose and operating characteristics of pressure relief valves; emphasizes inspecting, testing and maintenance of relief valves. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2308(0.5)  Course ID:006509
Recording Charts
Presents basic technology used to transfer information to a recording chart; emphasizes how to change, interpret, and send charts. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2401(0.5)  Course ID:006510
Self-Operating Regulators
Presents information and procedures basic to performing maintenance operations on self-operating pressure regulators. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2402(0.5)  Course ID:006511
Pilot Loaded Regulators
Presents concepts and principles basic to the operation and selection of pressure regulators and the control of gas pressure. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2403(0.5)  Course ID:006512
Test Pressure Limits
Presents the concepts and principles basic to test relief valves and pressure limiting and regulating stations. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2404(0.5)  Course ID:006513
Differential Pressure Recorder
Presents information and procedures for maintaining and calibrating differential pressure recorders. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NGT 2405(0.5)  Course ID:006514
Mercury Instruments
Presents the fundamental operating and maintenance procedures for Mercury instruments, gauges and indexes. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NGT 2406(0.5)  Course ID:006515
Multiple Range Pressure Chart
Presents concepts and principles basic to reading multiple range pressure recording charts. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NIP Nursing Integrated Program
NIP 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. Incorporates the integrating 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 BIO105, PSY110, ENG101, and CIT105 or EST 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 103(2) Course ID:016949
Introduction to Pharmacology
Introduces dosage calculations and medication administration, specifically used medications. Includes an overview of common drug classifications and their effects. Emphasizes nursing responsibility, accountability and application of nursing process to drug therapy across the lifespan. Pre-requisite: Admission to the Integrated Nursing program and proof of active status on the Kentucky Nurse Aide Registry. Completion, with a grade of "C" or better, of BIO105, PSY110, ENG 101. Students must have Basic Life Support certification, current liability insurance coverage and current immunizations for the duration of the course. Pre-requisite or Co-requisite: NIP 116. Lecture: 2.0 credits (30 contact hours)

Components: Lecture
Attributes: Technical
NIP 116(10) Course ID:006838
Fundamentals of Nursing
Focuses on basic nursing concepts that the beginning nurse will need to provide care to diverse clients utilizing the six integrated concepts of nursing practice: context and environment, knowledge and science, personal/professional development, quality and safety, relationship-centered care, and teamwork. 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, integrity, ethics, holism, and patient-centeredness. Focuses on the integration of knowledge, skills, acquisition, and critical thinking in the provision of prudent health care delivery. Examines client's needs, health promotion, basic human needs, prevention of complication as related to mechanisms of self-defense including immunity, inflammation, infection, and the surgical patient. Examines client's needs, health promotion, therapeutic communication, treatment modalities, concepts of mental health and assessment.

Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical
NIP 120(3) Course ID:005381
Maternal Child Nursing Care
Focuses on health promotion in the context of the family experiencing reproductive issues including pregnancy, labor and delivery, post-partum, and the newborn. Focuses on management of care for patients with perinatal complications and high-risk newborns. Integrates concepts of the NLN 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.

Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical
NIP 128(10) Course ID:008842
Medical Surgical Alteration
Focuses on care of clients with stressors to normal lines of defense in hematology, immunology, integumentary fluid and electrolyte/acid-base imbalance, respiratory, musculoskeletal, cardiovascular/gastrointestinal/hematopoietic, renal/urinary, endocrine, reproductive, and neurological/sensory. Integrates the concepts of nursing practice: context and environment, knowledge and science, personal/professional development, quality and safety, relationship-centered care, and teamwork. Uses the Neuman Systems Model to provide care for clients by incorporating the core values of caring, diversity, excellence, integrity, ethics, holism, and patient-centeredness. Through clinical experience and theory application, examines the 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 129(11) Course ID:016950
Nursing Care Across the Life Span
Focuses on care of patients across the lifespan with stressors to normal lines of defense in hematology, immune, integumentary, fluid and electrolyte/acid-base imbalance, respiratory, musculoskeletal, cardiovascular, gastrointestinal/hematopoietic, renal/urinary, neurological/sensory and endocrine and reproductive health. Includes nursing care throughout pregnancy and the postpartum period, as well as nursing care of the newborn and the childbearing family. Integrates the concepts of nursing practice: context and environment, knowledge and science, personal/professional development, quality and safety, relationship-centered care, and teamwork. Uses the Neuman Systems Model to provide care for patients by incorporating the core values of caring, diversity, excellence, integrity, ethics, holism, and patient-centeredness. Examines the patient's needs, health promotion, various treatment modalities, and nursing interventions, through clinical experience and theory application. Pre-requisite: Completion with a Components: Clinical, Laboratory, Lecture
Attributes: Technical
NIP 140(6) Course ID:005435
Practical Nursing Role Transition
Prepares students to assume the role of graduate practical nurse. Promotes clinical judgment, delegation and collaboration in the provision of safe, ethical, holistic patient centered care. Explores healthcare management systems and employment seeking skills as students begin to develop a professional identity. Includes a clinical practicum in a health care facility utilizing the nursing process and evidence-based information in delivering clinically competent care. Pre-requisite: Completion with a grade of "C" or better in NIP210, NIP128. Students must have Basic Life Support certification, current liability insurance coverage and current immunizations for the duration of the course or Co-requisite: CIT 105 or EST 105 Lecture: 2.0 credits (30 contact hours). Clinical: 9.0 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. Utilizes the nursing process in care management of clients with complex health care needs. Emphasizes the self-defense/protection: skin, hair, nails, cancer, hematological, 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 129 or successful completion of the Practical Nursing Program curriculum and proof of active unencumbered Kentucky or National Practitioner Nurse Licensure. Students must have Basic Life Support certification, current liability insurance coverage

Components: Clinical, Lecture
Attributes: Technical
NIP 215(7) Course ID:005438
Leadership and Specialty Practice
Prepares students for the Associate Degree Nursing Program to assume the role of a graduate nurse in the synthesis and application of the nursing process for the holistic care of the patient with complex, multidimensional needs. Emphasizes leadership and management of care, continued skill development and professionalism: to include ethics, integrity, excellence diversity and caring. Introduces the nursing student to the dynamics and issues of teams, organizations and the health care system that requires effective leadership interventions and proactive leadership strategies. Emphasizes self-development of leadership attributes, such that every student will be able to recognize effective leadership strategies and will be able to implement these strategies at the appropriate time and place. Integrates theories and concepts from all nursing courses and provides for practice in predominantly distributive health care settings. Emphasizes the utilization of the nursing process, prevention of illness, maintenance of health, and the leadership role of the nurse.

Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical
NIP 220(2) Course ID:016105
Advanced Cardiac & Emergent Care
Focuses on administration of care for acute cardiovascular emergencies including cardiac arrest, acute myocardial infarction, and stroke. Prepares students to participate in emergency care of patients highlighting the importance of teamwork and communication. Integrates the concepts of care and immediate post-cardiac-arrest care. Educates students on airway management and related pharmacology. Students demonstrating essential knowledge and skills, obtaining 85% or greater on the written exam, and successfully completing the megacode will receive an American Heart Association ACLS provider card. Pre-requisite: Completion with a grade of "C" or better in NIP 211 and MAT 150. Students must have Basic Life Support certification. Co-requisite: NIP 215 Lecture: 0.5 credits (7.5 contact hours). Lab: 1.5 credits (67.5 contact hours)

Components: Laboratory, Lecture
Attributes: Technical
NMI Nuclear Medicine and Molecular Imaging Technology
NMI 140(2) Course ID:005714
Clinical Procedures I
Covers radiouclide skeletal system imaging techniques to demonstrate vascular, soft tissue and skeletal distribution. Includes radionuclide cardiac imaging procedures for myocardial perfusion and viability, functional evaluation (equilibrium and first-pass methods) and deep vein thrombosis detection. Prerequisite: Admission to the NMI program. Computer Literacy. (MAT 150) and (BIO 137 and BIO 139) or consent of instructor. Co-requisite: CHE 140 and (PHY 171 or PHY 172) and NMI 141 and NMI 142 and NMI 150. Lecture: 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical
NMI 141(2) Course ID:005715
Physics and Instrumentation I
Introduces concepts and physical principles that govern radioactivity and the interactions of radiation with matter, the principles, operation and quality control for non-imaging, gas-filled detectors and non-imaging scintillation detectors; also the principles and applications of statistics as they relate to radiation detection and counting. Pre-requisite: Admission to the NMI program. Computer Literacy. (MAT 150) and (BIO 137 and BIO 139) or consent of instructor. Co-requisite: NMI 140 and NMI 142 and NMI 150. Pre-requisite or Co-requisite: CHE 140 and either PHY 171 or PHY 172. Laboratory: 2.0 credits (45 contact hours).

Components: Laboratory, Lecture
Attributes: Technical
NMI 142(1) Course ID:005716
Radiation Biology and Protection
Covers interactions of ionizing radiation with human tissues, its potential effects, dosimetry and...
to exposure. Covers radiation protection principles, applications and NRC regulations. Pre-requisite: Admission to the NMMI program. Computer Literacy; [MAT 150] and (BIO 137 and BIO 139) or consent of instructor. Co-requisite: (NMI 140 and NMI 141 and NMI 142) or consent of instructor. Pre-requisite or Co-requisite: CHE 140 and either PHY 171 or PHY 172. Lecture: 1.0 credits (15 contact hours).

Components: Lecture Attributes: Technical NMI 150(2) Course ID:005717 Clinical I Introduces concepts of clinical practice with application of knowledge and principles from previous general education course work and/or concurrent NMI courses. Will include actual clinical experience in an affiliated nuclear medicine clinical setting. Pre-requisite: Admission to the NMMI program. Computer Literacy; [MAT 150] and (BIO 137 and BIO 139) or consent of instructor. Co-requisite: (NMI 140 and NMI 141 and NMI 142) or consent of instructor. Pre-requisite or Co-requisite: CHE 140 and either PHY 171 or PHY 172. Lecture: 1.0 credits (15 contact hours).

Components: Lecture 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. Pre-requisite: [(NMI 140 and NMI 141 and NMI 142 and NMI 150) with a grade of C or greater] or consent of instructor. Co-requisite: NMI 161 and NMI 170. Pre-requisite or Co-requisite: CHE 150. Lecture: 2.0 credits (30 contact hours).

Components: Lecture Attributes: Technical NMI 161(2) Course ID:005719 Clinical Procedures III Covers imaging procedures of the urinary system, central nervous system and endocrine systems including appropriate interventional and challenge procedures. Pre-requisite: [(NMI 220 and NMI 230) with a grade of C or greater] or consent of instructor. Co-requisite: NMI 260 or consent of instructor. Lecture: 4.0 credits (60 contact hours).

Components: Lecture Attributes: Technical NMI 220(4) Course ID:005723 Clinical Procedures IV Covers oncologic imaging procedures, inflammatory/ infectious process imaging procedures, radionuclide therapy procedures, non-imaging procedures related to hematology and vitamin B-12 absorption, excretion and metabolism, and radionuclide procedures. Pre-requisite: [(NMI 240 and NMI 260) with a grade of C or greater] or consent of instructor. Co-requisite: NMI 270 or consent of instructor. Lecture: 4.0 (60 contact hours).

Components: Lecture Attributes: Technical NMI 250(4) Course ID:005724 Clinic IV Continuation of NMI 220 Clinic III; Covers application of knowledge and principles from previous general education course work and/or previous/concurrent NMI courses. Will include actual clinical experience in affiliated nuclear medicine clinical setting. Pre-requisite: [(NMI 220 and NMI 230) with a grade of C or greater] or consent of instructor. Co-requisite: NMI 240 or consent of instructor. Clinical: 4.0 credits (360 contact hours).

Components: Clinical Attributes: Technical NMI 260(4) Course ID:005725 Clinic V Continuation of NMI 260 Clinic IV; Covers application of knowledge and principles from previous general education course work and/or previous/concurrent NMI courses. Includes actual clinical experience in an approved nuclear medicine clinical setting. Pre-requisite: [(NMI 240 and NMI 260) with a grade of C or greater] or consent of instructor. Co-requisite: NMI 270 or Co-requisite: CHE 150. Clinical: 2.0 credits (180 contact hours).

Components: Clinical Attributes: Technical NMI 270(4) Course ID:005726 Clinic VI Provides a historical overview of current health care system and roles and responsibilities of members of the healthcare team. Emphasizes practical nursing and the nursing process in the context of Functional Health Patterns and Maslow’s hierarchy of needs as related to client daily living across the lifespan. Covers fundamental nursing skills including therapeutic communication techniques; nursing assessment; nursing process and care planning; charting; legal and ethical parameters of health care; rest and sleep; and body mechanics. Pre-requisite: Admission to Practical Nursing program and CPR for Health Care Providers certification to be maintained throughout enrollment in the program AND [NAA 100 or equivalent] within the past three years OR Active status on the Medicaid Nurse Aide Registry AND Computer Literacy as defined by KCTCS. Pre-requisite or Co-requisite: [BIO 135 or BIO 139] and (AHS 120 or CLA 131 or AHS 120 or OST 103) and (AHS 100 or PSY 223) with a minimum grade of C in each course. Lecture: 3.0 credits (35 contact hours).

Components: Clinical, Laboratory, Lecture Attributes: Course Also Offered in Modules, Technical NPN 105(6) Course ID:004022 Development of Care Giver Role Introduces nursing and the nursing process as related to client activities of daily living across the lifespan. Provides an opportunity to develop and practice psychomotor skills related to health assessment, promotion, maintenance, and illness prevention. Pre-requisite: Admission to Practical Nursing program AND CPR for Health Care Providers certification to be maintained throughout enrollment in the program AND [NAA 100 or equivalent] within the past three years OR active status on the Medicaid Nurse Aide Registry] AND Digital Literacy as defined by KCTCS. Pre-requisite or Co-requisite: [BIO 135 or BIO 139] and (AHS 100 or PSY 223) with a minimum grade of C in each course] OR Consent of PN Coordinator. Lecture: 3.0 credits (45 contact hours); Lab/ Clinical: 3.0 credits (45 x ratio 135 contact hours).

Components: Clinical, Laboratory, Lecture Attributes: Technical NPN 106(6) Course ID:005627 Fundamentals of Nursing Care Provides a historical overview of health care system and roles and responsibilities of members of the healthcare team. Emphasizes practical nursing and the nursing process in the context of Functional Health Patterns and Maslow’s hierarchy of needs as related to client daily living across the lifespan. Covers fundamental nursing skills including therapeutic communication techniques; nursing assessment; nursing process and care planning; charting; legal and ethical parameters of health care; rest and sleep; and body mechanics and introductory content on the surgical experience. Pre-requisite: Admission to Practical Nursing program AND CPR for Health Care Providers certification to be maintained throughout enrollment in the program AND [NAA 100 or equivalent] within the past three years OR Active status on the Medicaid Nurse Aide Registry] AND Computer Literacy as defined by KCTCS. [ENG 101 and MT 110 and (AHS 1 15 or CLA 131) with a minimum C grade. Pre-requisite or Co-requisite: (BIO 139 and PSY 223). Minimum C grade. Lecture: 4 credits (60 contact hours). Lab: 2 credits (30 contact hours).

Components: Clinical, Laboratory, Lecture Attributes: Course Also Offered in Modules, Technical NPN 108(3) Course ID:005628 Pharmacology in Nursing Introduces dosage calculations and medication administration of commonly used medications. Includes an overview of common drugs, drug classifications, and effects administered in the following modes: oral, sublingual, rectal, topical, intradermal, intramuscular, subcutaneous, intravenous including IV fluid administration skills. Emphasizes nursing responsibility, accountability, and application of nursing process to drug therapy. Pre-
**NPN 110(2)** Course ID:004023

**Pharmacology I**

Introduces techniques used to administer medications. Includes dosage, diagnostic studies, related medical therapies, and legal responsibilities. Pre-requisite: Admission to Practical Nursing program AND CPR for Health Care Providers certification to be maintained throughout enrollment in the program AND (NAA 100 or equivalent) within the past three years OR active status on the Medicaid Nurse Aide Registry AND Digital Literacy as defined by KYCTCS. Pre-requisite or Co-requisite: (BIO 135 or BIO 139) and (AHS 100 or PSY 223) (with a minimum grade of C in each course) OR Consent of PN Coordinator. Minimum C grade. Lecture: 1.0 credit (15 contact hours); Lab/Clinical: 1.0 credit (45 contact hours).

**Components:** Laboratory, Lecture

**Attributes:** Course Also Offered in Modules, 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. Pre-requisite: Admission to Practical Nursing program AND CPR for Health Care Providers certification to be maintained throughout enrollment in the program AND (NAA 100 or equivalent) within the past three years OR active status on the Medicaid Nurse Aide Registry AND Digital Literacy as defined by KYCTCS. Pre-requisite or Co-requisite: (NPN 106 and NPN 110 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223) (with a minimum grade of C in each course) OR Consent of PN Coordinator. Minimum C grade. Lecture: 1.5 credit (30 contact hours); Lab/Clinical: 1.0 credit (45:1 ratio/45 contact hours).

**Components:** Laboratory, Lecture

**Attributes:** 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 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. Pre-requisites: Admission to Practicum Nursing Program AND (NAA 115 or equivalent) AND (BIO 135 or BIO 139) AND (ENG 101 or COM 181 or COM 252 or TEC 200) AND (CLA 131 or AHS 120 or OST 103) AND Digital Literacy with a minimum grade of C in each prerequisite course. Pre-requisite or Co-requisite: (AHS 100 or PSY 223) with a minimum grade of C. Lecture: 3.0 credits (45 contact hours). Laboratory: 3.0 credits (135 contact hours).

**Components:** Laboratory, Lecture

**Attributes:** Course Also Offered in Modules, Technical

**NPN 125(3)** Course ID:004025

**Mental Health**

Applies nursing process to clients experiencing common mental health problems with emphasis on assisting clients to cope with psychological problems throughout the life span - i.e., chemical dependency, violence and other issues and developmental problems related to mental health. Pre-requisite: Pathway 1: (NPN 100 and NPN 105 and NPN 110) and (BIO 135 or BIO 139) and (AHS 100 or PSY 223) or Consent of PN Coordinator. Minimum C grade. Pre-requisite or Co-requisite: Pathway 2: (NPN 101 and NPN 111 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223) and (AHS 120 or AHS 135 or OST 131)). Minimum C grade. Lecture: 3.0 credits (45 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. Pre-requisite: (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 client/adult clients experiencing common health deviations interfering with activities of daily living. Emphasis in on the nurse as the provider of care. Pre-requisite: Pathway 1: (NPN 100 and NPN 105 and NPN 110 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223) or Consent of PN Coordinator). Minimum C grade. Lecture: 3.0 credits (45 contact hours); Lab/Clinical: 3.0 credit (45:1 ratio/135 contact hours).

**Components:** Clinical, Laboratory, Lecture

**Attributes:** Course Also Offered in Modules, Technical

**NPN 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. Pre-requisite: (NPN 125 and NPN 130 and NPN 135 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223) or Consent of PN Coordinator). Minimum C grade. Lecture: 3 credits (45 contact hours); Lab/Clinical: 2 credits (90 contact hours).

**Components:** Clinical, Laboratory, Lecture

**Attributes:** Technical

**NPN 201(3)** Course ID:004024

**Child Bearing Family**

Applies nursing process to childbearing families with focus on health promotion and common health alterations in the reproductive process. Pre-requisite: Pathway 1: (NPN 100 and NPN 105 and NPN 110 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223)) or Consent of PN Coordinator. Minimum C grade. Lecture: 3 credits (45 contact hours); Lab/Clinical: 2 credits (90 contact hours).

**Components:** Clinical, Laboratory, Lecture

**Attributes:** Technical

**NPN 202(6)** Course ID:005729

**Med-Surg I Alterations**

Applies nursing process to selected child/adult clients experiencing common health deviations related to toxic/metallic dysfunctions, fluid and electrolyte imbalances, cardiovascular dysfunctions, and cellular deviations that interfere with activities of daily living on the nurse as the provider of care. Pre-requisite: (NPN 101 and NPN 111) and (BIO 135 or BIO 139) and (AHS 115 or AHS 120 or CLA 131 or OST 131). Minimum C grade. Pre-requisite or Co-requisite: Pathway 1: NPN 135. Minimum C grade. Laboratory, Lecture: 6 credits (150 contact hours).

**Components:** Clinical, Laboratory, Lecture

**Attributes:** Course Also Offered in Modules, Technical

**NPN 205(5)** Course ID:004029

**Med Surg II**

Applies the nursing process to child/adult clients experiencing complex health alterations. The focus is on multi-system failure, fluid and electrolytes, neurological problems, and cellular deviation. Pre-requisite: NPN 200. All courses must be achieved with a grade of C or greater. Laboratory, Lecture: 3 credits (90 contact hours/15 contact hours).

**Components:** Clinical, Laboratory, Lecture

**Attributes:** Technical

**NPN 210(4)** Course ID:004030

**Clinical Practicum**

Integrates the theoretical concepts learned throughout the program in application of knowledge during the direct care of clients. Prepares critical thinking and problem solving skills during the nursing role and promotes the professional nurse's role, and member within the discipline. Pre-requisite: Pathway 1: NPN 205. Minimum C grade. Pathway 2: NPN 206. Minimum C grade. Pre-requisite or Co-requisite: Pathway 3: (NPN 208 and NPN 210) or Consent of PN Coordinator. Minimum C grade. Lecture: 1.0 credit (15 contact hours); Practicum: 3.0 credits (45:1 ratio/135 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 1011(0.5)** Course ID:006270

**Roles & Professionalism**

Provides a historical overview of the health care system and roles and responsibilities of members of the healthcare team. Covers fundamental nursing skills including therapeutic communication techniques, legal and ethical parameters of health care, cultural aspects of care, and professionalism. Pre-requisite: Admission into the KYCTCS Online Practical Nursing Program requires minimum grade of C in (BIO137 & BIO139) and (AHS115 or CLA 131 or AHS 120 or OST 103) and (PSY100 or PV110 and PSY 223) and ENG101 and CIS100 or equivalency. Current CPR card for Health Care Providers;
NPN 1063(1.5) Course ID:005701

Nursing Process
Presents the process and the development of the patient plan of care. Pre-requisite: NPN 1061, Minimum C grade. Pre-requisite or Co-requisite: (BIO 139 and PSY 223) Minimum C grade. Lecture: 1 credit (15 contact hours). Lab: 0.5 credits (22.5 contact hours).

Components: Laboratory, Lecture
mental health. Pre-requisite: NPN 1255 Completion with a C or better. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

NPN 1257(1) Mental Health: Lab and Clinical Experience Applies the nursing process to clients experiencing common mental health problems with emphasis on assisting clients to cope with psychological problems throughout the nursing process within laboratory and clinical settings. Pre-requisite: NPN 1256 Completion with a C or better. Lecture: 1.0 credit (45 contact hours).

Components: Clinical, Laboratory

NPN 1351(0.75) Perioperative Care Includes the nursing process for selected child/adult clients experiencing common health deviations interfering with activities of daily living. Emphasizes the nurse as the provider of care for those patients experiencing alterations in the perioperative period. Pre-requisite: Pathway 1: ((NPN 100 and NPN 105 and NPN 110 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223)) within the “C” in each course) OR Consent of Prin Coordinator. Pathway 2: (NPN 1016 and 1113 and (BIO 135 or BIO 139) and (AHS 115 or AHS 120 or CLA 131 or OST 103)) with a minimum grade of “C” in each course. Lecture: 0.75 credit (11.25 contact hours).

Components: Lecture

NPN 1352(1.25) Perioperative Care II Provides for application of the nursing process for selected child/adult clients experiencing common health deviations interfering with activities of daily living. Emphasizes the nurse as the provider of care for those patients experiencing alterations in oxygenation focusing on respiratory function. Pre-requisite: NPN 1351 within 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) Clinical I 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 the provider of care for those patients experiencing alterations in oxygenation focusing on respiratory function. Pre-requisite: NPN 1351 with a C or better. Pre-requisite or Co-requisite: NPN 1352 (Pre-requisites require a C or better), Clinical 1 credit (45 contact hours).

Components: Clinical

NPN 1354(1.25) Perioperative Care III Provides for application of the nursing process for selected child/adult clients experiencing common health deviations interfering with activities of daily living. Emphasizes the nurse as the provider of care for those patients experiencing alterations in oxygenation focusing on respiratory function. Pre-requisite: (NPN 1351 and NPN 1352 and NPN 1353) with a grade of “C” and C or better in each course. Lecture: 0.75 credits (11.25 contact hours). Lab: 0.5 credit (22.5 contact hours).

Components: Laboratory, Lecture

NPN 1355(0.75) Threats to Defenses Includes the nursing process for selected child/adult clients experiencing common mental health deviations interfering with activities of daily living. Emphasizes the nurse as the provider of care for those patients experiencing threats to body defenses. Pre-requisite: NPN 1354 Completion with a C or better. Lecture: 0.5 credit (11.25 contact hours).

Components: Lecture

NPN 1356(1) Clinical II Introduces application of the nursing process for selected child/adult clients experiencing common health deviations with activities of daily living. Emphasizes the nurse as a provider of care for those patients experiencing alterations in body defenses and alterations in oxygenation. Pre-requisite: NPN 1353 or NPN 1355 (Pre-requisites require a C or better). Clinical: 1.0 credit (45 contact hours).

Components: Clinical

NPN 1401(0.75) Fluid/Electrolyte Balance Care Pre-requisite: NPN 106 and NPN 108 and BIO 139 and PSY 223 with a minimum grade of “C” in each course. Pre-requisite: NPN 1356 (Pre-requisites require a C or better). Clinical: 1.0 credit (45 contact hours).

Components: Clinical, Laboratory

NPN 1402(0.75) Cardiovascular and Respiratory Function Care Pre-requisite: NPN 106. Pre-requisite or Co-requisite: NPN 107 and NPN 125 Minimum C grade. Lecture: 0.5 credits (7.5 contact hours). Laboratory: 0.125 credits (5.625 contact hours). Clinical 0.125 credits (5.625 contact hours).

Components: Clinical, Laboratory, Lecture

NPN 1403(0.75) Nutrition and Activity/Exercise Functions Across the Life Span Pre-requisite: NPN 108 and NPN 110 and (BIO 135 or BIO 139) and (AHS 100 or PSY 223). Pre-requisite: NPN 106 and NPN 108 and BIO 139 and PSY 223 with a minimum grade of “C” in each course. Lecture: 0.75 credits (11.25 contact hours). Laboratory: 0.125 credits (5.625 contact hours). Clinical 0.125 credits (5.625 contact hours).

Components: Laboratory, Lecture

NPN 1404(0.75) Surgical Intervention Care Pre-requisite: NPN 1356. Pre-requisite or Co-requisite: NPN 201 and NPN 125 Minimum C grade. Lecture: 0.5 credits (7.5 contact hours). Laboratory: 0.125 credits (5.625 contact hours). Clinical 0.125 credits (5.625 contact hours).

Components: Clinical, Laboratory, Lecture

NPN 2021(1) Metabolism Clinical Practice Pre-requisite: NPN 2012 with minimum C grade. Lecture: 1 credit (15 contact hours).

Components: Lecture

NPN 2022(1) Course ID:006284 Fluid and Electrolytes Pre-requisite: NPN 1354 Completion with a C or better. Laboratory: 1 credit (15 contact hours).

Components: Lecture

NPN 2023(1) Metabolism Clinical Practice Pre-requisite: NPN 2012 with minimum C grade. Lecture: 1 credit (15 contact hours).

Components: Lecture

NPN 2024(1) Cellular Proliferation Pre-requisite: NPN 2012 with minimum C grade. Lecture: 1 credit (15 contact hours).

Components: Lecture

NPN 2025(1) Alterations in Perfusion Pre-requisite: NPN 2012 with minimum C grade. Lecture: 1 credit (15 contact hours).

Components: Lecture

NPN 2026(1) Post-Maternal: Maternal Phase Care Pre-requisite: NPN 2012 with minimum C grade. Lecture: 1 credit (15 contact hours).

Components: Lecture
NPN 2026(1) Course ID:006298
Perfusion & Cell Deviation Clinicals
Demonstrates the knowledge gained in NPN 2024 and NPN 2025 in providing care for clients with alterations in metabolism, fluid and electrolyte imbalances. Pre-requisite: NPN 2025 Completion with a C or better. Laboratory or Clinical: 1.0 credit (45 contact hours).

NPN 2061(1) Course ID:006299
Alterations in Coordination
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. Pre-requisite: NPN 2060 Completion with a C or better. Lecture: 1.0 credit (15 contact hours).

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. Pre-requisite: NPN 2062 Completion with a "C" or better. Laboratory: 1.0 credit (45 contact hours).

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. Pre-requisite: NPN 2083 with a grade of C or greater. Co-requisite: NPN 210 and NPN 215. Lecture: 1.2 credits (18 contact hours). Clinical: 0.8 credits (36 contact hours).

NPN 2085(2) Course ID:005769
Cell Function/Multi-System Failure Care
Presents content on alterations in cellular deviation and multi-system organ failure, and the role of the practical nurse in planning appropriate interventions. Pre-requisite: NPN 2084 with a grade of C or greater. Co-requisite: NPN 210 and NPN 215. Lecture: 1.2 credits (18 contact hours). Clinical: 0.8 credits (36 contact hours).

NPN 2064(1) Course ID:006302
Elimination Alterations
Applies nursing process to selected child/adult clients experiencing common health deviations related to toilemination dysfunction that interfere with activities of daily living with emphasis on the role of the practical nurse as the provider of care. Pre-requisite: NPN 2064 Completion with a C or better. Lecture: 1.0 credit (15 contact hours).

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 nurses the provider of care. Pre-requisite: NPN 2064 Completion with a C or better. Lecture: 0.5 credit (7.5 contact hours).

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. Pre-requisite: NPN 2065. Completion with a "C" or better. Clinical: 1.0 credit (45 contact hours).

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. Pre-requisite: (NPN 125 and NPN 140 and NPN 201). Minimum C grade. Co-requisite: 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) Course ID:005766
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. Pre-requisite: NPN 2081 with a grade of C or greater. Co-requisite: NPN 210 and NPN 215. Lecture: 1.2 credits (18 contact hours). Clinical: 0.8 credits (36 contact hours).

Components: Clinical, Lecture

NPN 2083(2) Course ID:005767
Cardiovascular Function Care
Presents content on the patient with alterations in cardiovascular function and the role of the practical nurse in planning appropriate interventions. Pre-requisite: NPN 2082 with a grade of C or greater. Co-requisite: 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. Pre-requisite: NPN 2083 with a grade of C or greater. Co-requisite: 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 deviation and multi-system organ failure, and the role of the practical nurse in planning appropriate interventions. Pre-requisite: NPN 2084 with a grade of C or greater. Co-requisite: NPN 210 and NPN 215. Lecture: 1.2 credits (18 contact hours). Clinical: 0.8 credits (36 contact hours).

Components: Clinical, Lecture

NPN 2101(1) Course ID:005774
Theoretical Concepts of Clinical Practice
Presents concepts of legal nursing practice that will be implemented in the NPN 2102 practical experience. Pre-requisite: Pathway 1: NPN 205. Minimum "C" grade Pathway 2: NPN 206. Minimum "C" grade. Pre-requisite or co-requisite: 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. Pre-requisite: All Pathways: NPN 2101 with grade of "C" or greater. Pre-requisite or Co-requisite: 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 (135 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. Pre-requisite: 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 125 and NPN 201 and NPN 206) 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 for transition to a career in practical nursing. Pre-requisite: NPN 2151. Pre-requisite or Co-requisite: 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 210) with a minimum grade of "C" in each course. Lecture: 0.5 credits (7.5 contact hours).

Components: Lecture

Course Descriptions

NRS Nursing

NRS 106(2) Course ID:006616
Enhancing Nursing Student Success
Enhances the probability of students being successful in a nursing program by fostering critical thinking skills and practice taking NCLEX-style examinations. Focuses on understanding the role of a nursing student. Addresses stress and time management as contributors to nursing student success. Pre-requisite: Active status on Kentucky Medicaid Nurse Aide Registry or its equivalent. Lecture: 2.0 credits (30 contact hours).

Components: Lecture

Attributes: Technical

NRS 101(9) Course ID:004332
Nursing Care I
Establishes the foundation for competency based nursing practice by introducing beginning concepts and skills that are built upon the nursing curriculum. Introduces the four roles of nursing practice including human nourishing, 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 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 into the Nursing Program; Proof of active status on Kentucky Medicaid Nurse Aide Registry or its equivalent, and computer literacy; (BIO 137 and MAT 150 or higher with a grade of "C" or better); PSY 110. Pre-requisite Or Co-requisite: (BIO 139 with a grade of "C" or better) and PSY 223. Lecture: 9.0 credits (255 contact hours).

Components: Clinical, Lecture

Attributes: Technical

NRS 102(10) Course ID:004333
Nursing Care II
Includes the application of problem-solving and critical thinking skills in the care of clients across the lifespan and of diverse cultures with actual or the potential for alterations in health due to common acute and chronic health problems. Provides care of clients during the childbearing cycle focusing on common healthalterations in the reproductive process. Strengthens the four roles of nursing practice including human nourishing, 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

Attributes: Technical

NRS 200(3) Course ID:004334
LPN-ADN Transition
Facilitates the transition of licensed practical nurses into the nursing mobility program by building upon prerequisite knowledge, attitudes, and cognitive and psychomotor skills using strategies of adult learning. Orient 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. Pre-requisite: Admission to nursing program; BIO
137, BIO139, and MAT 150 or higher with a grade of "C" or better; ENG 101, computer literacy, oral Communications; (PSY110 or PSY 100) and PSY 223. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

NSG 203(9)  Course ID:004335
Nursing Care III
Applies problem-solving and critical thinking skills in the care of diverse clients/families across the lifespan with actual or the potential for alterations in health due to complex acute and chronic health problems. Emphasizes leadership, management concepts, critical decision-making, knowledge, judgment, skills and professional values within an ethical framework. Introduces the RN responsibilities in relation to the roles of the nursing practice including human flourishing, human judgment, professional identity, and spiritual inquiry. Pre-requisite: NSG 102 with a grade of "C" or better. Pre-requisite Or Co-requisite: BIO 225 or BIO227 with a grade of "C" or better; ENG 102. Lecture: 9.0 credits (225 clinical hours).

Components: Clinical, Lecture
Attributes: Technical

NSG 204(10)  Course ID:004343
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 spiritual inquiry with an emphasis on leadership, management concepts, critical decision-making, collaboration, knowledge, judgment, skills and professional values within an 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 practice 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: NSG 203 and (BIO 227 or BIO 225) with a grade of "C" or better. Pre-requisite Or Co-requisite: Prior to or concurrent Heritage/Humanities. Lecture: 10.0 credits (270 clinical hours).

Components: Clinical, Lecture
Attributes: Technical

NSG 100(3)  Course ID:005269
Preparation for Nursing
Explores careers in the nursing profession. Includes career options and educational pathways, goal setting, and self-awareness, tools/strategies for success in nursing programs, and trends impacting nursing’s future. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

NSG 101(9)  Course ID:000568
Nursing Practice I
Covers nursing practice using functional health patterns within the context of the contemporary healthcare system. Emphasizes foundation knowledge of nursing practice, skills acquisition, and care of clients with risk for or actual chronic common health pattern dysfunctions. Pre-requisite: Admission to Associate Degree Nursing Program; BIO 137 (within ten years) with a grade of "C" or better, and PSY 110. Pre-requisite Or Co-requisite: BIO 137 with a grade of "C" or better (within 10 years) and ENG 101 Lecture: 5.0 credits (75 contact hours). Clinical: 4.0 credits (200 contact hours).

Components: Clinical, Laboratory, Lecture
Attributes: Technical

NSG 106(9)  Course ID:006179
Nursing One
Introduces and applies Gordon's Functional Health Patterns (FHP) within the context of the contemporary healthcare system. Emphasizes foundation knowledge of nursing practice, skills acquisition, and care of clients with risk for or actual chronic common health pattern dysfunctions. Pre-requisite: Admission to Associate Degree Nursing Program; BIO 137 (within ten years) with a grade of "C" or better, MA 150 with a grade of "C" or better, and PSY 110. Pre-requisite Or Co-requisite: BIO 137 with a grade of "C" or better (within 10 years) and ENG 101 Lecture: 5.0 credits (75 contact hours). Clinical: 4.0 credits (200 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 (45 contact 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 practice. Focuses on the nursing care of 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 in application of the core components of nursing practice to patient’s experience. Pre-requisite: Admission to Associate Degree Nursing Program; BIO 137 (within ten years) with a grade of "C" or better. MAT 150 with a grade of "C" or better, PSY 110, and ENG 101. Co-requisite: NSG 216.Pre-requisite Or Co-requisite: PSY 223 and Oral Communications Course. Clinical: 1.0 credit (45 contact hours).

Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

NSG 197(3)  Course ID:005907
Transition to ADN
Builds upon the basic nursing skills and concepts learned in the LVN/LPN experience. Assists the Practical Nurse to make the beginning transition to the RN role. Includes the role of the Associate Degree Nurse and application of the course components of nursing practice to patients experiencing the dysfunctional health patterns of nutritional-metabolic and elimination. Upon successful completion of all components of the course, the student will be admitted to NSG 220 and will have earned by advanced standing, 15 credits in nursing Pre-requisite: Admission to Associate Degree Nursing Program and (BIO 137, BIO 139, and MAT 150 or higher with a grade of "C" or better), PSY 110, PSY 223, ENG 101, Oral Communications and Digital Literacy. Pre-requisite Or Co-requisite: NSG 215 and NSG 212 with a grade of "C" or better. Lecture: 2.5 credits (37.5 contact hours). Laboratory: 0.5 credits (22.5 contact hours).

Components: Clinical, Lecture, Attributes: Technical

NSG 199(2)  Course ID:005905
Accelerated Transition: PN-A.D.N Bridge
Admission to the Associate Degree Nursing Program and (BIO 137, BIO 139, and MAT 150 or higher with a grade of "C" or better), PSY 110, 75 hour nursing assistant course or its equivalent, and Computer Literacy. Pre-requisite Or Co-requisite: BIO 136 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

NLN 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, real-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. Pre-requisite: BIO 137, BIO 139, MAT150 or higher with a grade of "C" or better, PSY 110, ENG 101, and Computer Literacy.

Components: Laboratory, Lecture
Attributes: Technical

NSG 206(9)  Course ID:006181
Nursing Two
Includes the application of core components of nursing to clients experiencing alterations in health. Focusses nursing care for the client with mental health dysfunctions and the client experiencing acute and/or chronic health pattern dysfunctions. Pre-requisite: NSG 106 with a grade of "C" or better. Co-requisite: NSG 216 OR HST 121. Pre-requisite Or Co-requisite: PSY 223 and Oral Communications Course. Lecture: 5.0 credits (75 contact hours). Laboratory/Clinical: 4.0 credits (180 contact hours) 4:1 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 functional health pattern dysfunctions. Emphasizes the care of patients with nutritional-metabolic and elimination patterns. Pre-requisite: (NSG 101 and BIO 139) with a grade of "C" or better and PSY 223. Pre-requisite Or Co-requisite: (NSG 212 and NSG 215) with a grade of "C" or better, ENG 101 and Oral Communications. Clinical: 4.5 credits (67.5 contact hours). Laboratory: 3.0 credits (45 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. Pre-requisite: (NSG 210, NSG 212 and NSG 215), with a grade of "C" or higher, ENG 101 and Oral Communications. Pre-requisite Or Co-requisite: NSG 220 with a grade of "C" or higher, ENG 102, and BIO 225. Lecture: 2.0 credits (30 contact hours). Laboratory: 1.0 credit (45 contact hours). Clinical: 3.0 credits (45 contact hours).

Components: Clinical, Laboratory, Lecture
Attributes: Technical

NSG 212(3)  Course ID:005909
Behavioral Health Nursing
Focuses on the application of the nursing care to patients experiencing a dysfunctional health pattern. Emphasizes the care of patients with Coping-Stress-Tolerance and Altered Role-Relationship health patterns. Pre-requisite: (NSG 101 and BIO 139) with a grade of "C" or higher and PSY 223. Pre-requisite Or Co-requisite: (NSG 210 and NSG 215) with a grade of "C" or higher, 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 20:320). Pre-requisite: (NSG 220 and NSG 211 and BIO 223) with a grade of "C" or better, ENG 102. Co-requisite: NSG 220 or consent of instructor. Pre-requisite Or Co-requisite: NSG 225 with a grade of "C" or better, and Heritage/Humanities.
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 healthpatterns.
Emphasizes nursing responsibility, accountability, and application of the nursing process regarding drug therapy.
Pre-requisite: (NSG 101 and BIO 139) with a grade of "C" or higher and PSY 223 Pre-requisite or Co-requisite: (NSG 210 and 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 theuse 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: Course: 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 dysfunctional health patterns (cardiac, respiratory, and musculoskeletal). Pre-requisite: (NSG 210, NSG 215 and NSG 212) with a grade of "C" or higher and high school science, and basic computing. Teaches basic competencies in searching, locating, and evaluating information on the Internet, as well as how to keep up with emerging technologies and use computer skills to enhance quality of life and employability. Pre-requisite: RDG 020 or consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

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 NSG230; 201 KAR 20:320). Pre-requisite: (NSG 220 and NSG 211 and BIO 225) with a grade of "C" or higher) and ENG 102. Co-requisite: NSG 230 or consent of instructor. Pre-requisite or Co-requisite: Heritage/Humanities/Foreign Language and NSG 213, Lecture: 1.0 credit (15 contact hours).
Components: Lecture Attributes: Technical

NSG 226(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, and management of patients with dysfunctional health patterns: neurological, eyes/ears, immune/cancer, multiple systems organ failure, and disaster planning. Role transition is addressed and emphasizes leadership, management of care, skill development and professionalism. NSG 230 is the capstone course and must be successfully completed in the final semester of the associate degree nursing program enrollment. (201 KAR 20:320). Pre-requisite: (NSG 220 and NSG 211 and BIO 225) with a grade of "C" or higher and ENG 102. Pre-requisite or Co-requisite: NSG 213, NSG 225, Heritage/Humanities/Foreign Language. Lecture: 3.0 credits (45 contact hours) Laboratory: 3.0 credits (135 contact hours).
Components: Clinical, Laboratory, Lecture Attributes: Technical

NSG 236(9) Course ID:006184
Nursing Three
Includes application of the core components of nursing to the care of child-bearing and child-rearing families experiencing functional and dysfunctional health patterns. Pre-requisite: (NSG 206 and NSG 216 with a grade of "C" or better OR completion of HST 121 OR completion of the NSG 196 with a grade of "C" or better)Co-requisite: BIO 225 (within 10 years) with a grade of "C" or better OR HST 122 with a grade of "C" or better and ENG 102. Nursing Pharmacology II (NSG 226) or completion of HST 121. Lecture: 5.0 credits (75 contact hours) Laboratory: Clinical: 4.0 credits (180 contact hours).
Components: Clinical, Laboratory, Lecture Attributes: Course Also Offered in Modules, Technical

NSG 246(8) Course ID:006185
Nursing Four
Emphasizes the development of the nurse as a provider of care, manager of care, and member of the nursing profession. Provides for the application of critical thinking skills in the care of diverse patients/families across the lifespan with actual or potential alteration in health due to complex acute and chronic health problems. Includes an integrated practicum with an emphasis on leadership, management, clinical judgment, collaboration, knowledge, skills, and professional values within the legal/ ethical framework to facilitate the transition of the student to Registered Nurse practice. Pre-requisite: (NSG 236 and NSG 226) with a grade of "C" or better. Pre-requisite or Co-requisite: Heritage/Humanities/Foreign Language. Lecture: 5.0 credits (75 contact hours) Laboratory: Clinical: 4.0 credits (180 contact hours, 45:1 ratio).
Components: Clinical, Laboratory, Lecture Attributes: Course Also Offered in Modules, Technical

NSG 270(3) Course ID:004293
Genetic Disorders
Introduction to various genetic disorders which health care workers are likely to see during their careers. Specific areas of study include basic genetic concepts, inheritance modalities, genetic disorders, and the 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 289(5) Course ID:005782
Healthcare Cultural Immersion Experience
Introduces health care providers to cultural values, beliefs, practices, and community cultural/cultural immersion experience. Focuses on basic cultural vocabulary and on behaviors, beliefs, and nursing and health care practices of the chosen population. May be conducted in a country native to the chosen cultural group. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

NSG 298(3) Course ID:004434
Alternative and Complementary Therapies
This is an elective course that focuses on the impact of alternative and complementary therapies in nursing practice. Holistic nursing is emphasized, as well as the nurse's role in enhancing healing of the whole person from birth to death. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

NSG 299(1 - 4) Course ID:000531
Instructor Consent Required/Selected Topics in Nursing: (Topic)
Various nursing topics, issues, and trends will be addressed. Topics may vary from semester to semester at the discretion of the 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 Attributes: Technical

OST Office Systems Technology

OST 100(1) Course ID:003768
Keyboarding
Develops skill operating a keyboard by touch. Lab: 1.0 credit (45 contact hours).
Components: Laboratory Attributes: Technical

OST 101(3) Course ID:004926
Keyboarding & Intro to Document Formatting
Develops skill in operating a keyboard by touch and to develop an introductory level of skill producing standard business documents using a word processing program with speed and accuracy. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

OST 105(3) Course ID:003769
Introduction to Information Systems
Introduces students to computer concepts and terminology related to operating systems, file management and computing. Teaches basic competencies in searching, locating, and evaluating information on the Internet, using email and other online tools, and demonstrating responsible and ethical online and offline behavior. Teaches beginning skills in word processing electronic spreadsheets, presentations, databases and integration as well as how to keep up with emerging technologies and use computer skills to enhance quality of life and employability. Pre-requisite: RDG 020 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Digital Literacy, Course Also Offered in Modules

OST 108(3) Course ID:004521
Editing Skills for Office Professionals
A hands-on approach to editing business documents. Applies proper placement and structure of business documents. Reviews principles of grammar, punctuation, spelling, word and number usage, and proofreading rules. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

OST 109(3) Course ID:004520
Legal Terminology
Introduces the judicial system (discovery, trial, and appellate processes), civil law, criminal law, legal terminology and legal citations commonly used in the legal field. Includes communication patterns of attorneys, judges, and how to use them in legal context. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

OST 110(3) Course ID:003770
Instructor Consent Required/Document Formatting and Introduction to Word Processing
Provides experience in word processing including the mastery of touch typing with speed and accuracy using industry standard software. Pre-requisite: RDG 020 and Consent of Instructor (Or HST 121 (equivalent skills)). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules, Technical

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Components: Lecture

 OST 112(3) Course ID:004428
 Financial Management
 Designed to teach students fundamental principles and concepts including: financial markets, futures, bonds, commodities, interest rates, and taxes. The primary emphasis is short and long term financial planning along with interpretation of financial information. Careers in the financial industry discussed. Lecture: 3 credits (45 contact hours).
 Components: Lecture

 OST 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, type 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 compositional skills. Studies grids, file management and other options such as design standards with business publications. Lecture: 3 credits (45 contact hours).
 Components: Lecture
 Attributes: Technical

 OST 150(3) Course ID:003771
 Transcription and Office Technology
 Produce usable business documents from machine dictation using word processing software, with emphasis on spelling, punctuation, and grammar. Proofreading and editing applications stress the importance of accuracy and quality of document creation and production. Demonstration of office machines will be incorporated. Lecture: 3 hrs; 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 credits (45 contact hours).
 Components: Lecture
 Attributes: Technical

 OST 210(3) Course ID:003773
 Advanced Word Processing Applications
 Uses advanced features of current word processing software to format and produce documents utilized 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, mark-up/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
 Studies the practices and procedures of current office concepts with emphasis given to the electronic office including: job application procedures, human relations in the office, business ethics, decision-making skills, travel and meeting arrangements, time and stress management, incoming/outgoing mail processes, and telephone procedures. Pre-requisite Or Co-requisite: OST 110. Lecture: 3 credits (45 contact hours).
 Components: Lecture
 Attributes: Technical

 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 procedures 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 223(1 - 3) Course ID:016304
 Instructor Consent Required
 Provides experience in word processing for keying and electronic. Pre-requisite: RDG 020 or Consent of Instructor (OST 108) or Consent of instructor. Lecture: 1 credit (15 contact hours).
 Components: Lecture

 OST 224(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 105 or OST 105. Lecture: 3.0 credits (45 contact hours).
 Components: Lecture
 Attributes: Technical

 OST 225(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 225(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 using 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 227(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 information systems and the role of managerial personnel. Lecture: 3 credits. Laboratory: 0 credits.
 Components: Lecture
 Attributes: Course Also Offered in Modules, Technical

 OST 295(1 - 3) Course ID:003780
 Instructor Consent Required
 Provides the opportunity to apply acquired occupational skills in a realistic setting, enhancing the transition from school to work. Requires approval of OST advisor. Pre-requisite: OST 210, OST 215, and OST 240, or consent of instructor. Lecture: 1.0 - 3.0 credits (45-135 contact hours).
 Components: Laboratory
 Attributes: Technical

 OST 296(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 (135contact hours).
 Components: Practicum
 Attributes: Technical

 OST 108(1) Course ID:016303
 Word Processing Functions
 Provides basics of word processing including the information processing cycle, using spell check, proofreading and keypad accuracy using industry standard software. Pre-requisite: RDG 020 or Consent of Instructor (OST 108) or Consent of instructor. Lecture: 1 credit (15 contact hours).
 Components: Lecture

 OST 110(1) Course ID:016304
 Document Letters Memoranda
 Provides experience in word processing for keying letters and memoranda using industry standard software. Pre-requisite: OST 1101 or Consent of Instructor. Lecture: 1 credit (15 contact hours).
 Components: Lecture

 OST 110(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).
 Components: Lecture

 OST 160(1) Course ID:016814
 Into to Records Management
 Describe and demonstrate the importance and specifics of record management requirements as well as specific career information. Pre-requisite OR Co-requisite: OST 105. Lecture: 1.0 credits (15 contact hours).
 Components: Lecture

 OST 160(1) Course ID:016815
 Into to Database Management
 Identify ways to file and retrieve documents and compare automated and manual ways to store records. Pre-requisite OR Co-requisite: OST 105. Lecture: 1.0 credits (15 contact hours).
 Components: Lecture
Course Descriptions

OST 1603(1) Course ID:016816
Records and Database Mgmt Tech
Analyze automated techniques and describe the life cycles of stored records. Demonstrate skills related to all aspects of database filing. Pre-requisite OR Co-requisite: OST 105. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

OST 2101(1) Course ID:016306
Advanced Formatting and Tools
Uses advanced formatting features and Word Processing Tools of a current word processing software. Pre-requisite: OST 110. Lecture: 1 credit (15 contact hours).
Components: Lecture

OST 2102(1) Course ID:016307
Print and File Management
Uses advanced features of a current word processing software to manage file management, printing, and editing. Pre-requisite: OST 2101 or Consent of Instructor. Lecture 1 credit (15 contact hours).
Components: Lecture

OST 2103(1) Course ID:016308
Advanced Word Processing Tools
Uses advanced features of a current word processing software to format tables, insert graphics and clipart, and forms. Pre-requisite: OST 2102 or Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

OST 2151(1) Course ID:016851
Career Planning
Studies the practice and procedures of current office concepts including job application procedures, goal-setting, and professionalism. Pre-requisite OR Co-requisite: OST 110. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

OST 2152(1) Course ID:016821
Key Office Procedure Skills
Emphasizes specific techniques and skills needed for an office setting including mail procedures, communication and public relations, business ethics and etiquette. Pre-requisite: OST 2151. Pre-requisite OR Co-requisite: OST 110. Lecture: 1 credit (15 contact hours).
Components: Lecture

OST 2153(1) Course ID:016822
Decision Making Methods
Studies the practice and procedures of current office concepts including decision-making skills, problem-solving techniques, travel and meeting arrangements, and time and stress management. Pre-requisite: OST 2152. Pre-requisite OR Co-requisite: OST 110. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

OST 2251(1) Course ID:016309
Desktop Publishing Software
Uses desktop publishing software to design and produce high resolution publications such as flyers, brochures, business forms, and newsletters. Introduces basic design techniques, type and graphics layout, and related terminology. Pre-requisite: OST 105 and OST 110 or Consent of Instructor. Lecture: 1 credit (15 contact hours)
Components: Lecture

OST 2252(1) Course ID:016310
Desktop Publishing Design and Features
Uses desktop publishing software to design and produce high resolution publications such as flyers, brochures, business forms, and newsletters. Introduces basic design techniques, type and graphics layout, and related terminology. Pre-requisite: OST 2251 or Consent of Instructor. Lecture: 1 credit (15 contact hours)
Components: Lecture

OST 2253(1) Course ID:016311
Desktop Publishing Applications
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: 1.0 credits (15 contact hours)
Components: Lecture

OST 2501(1) Course ID:016823
Intro to Adv Desktop Publishing
Demonstrate methods of creating quality publications using desktop publishing software. Pre-requisite OR Co-requisite: OST 225. Lecture: 1.0 credits (15 contact hours)
Components: Lecture

OST 2502(1) Course ID:016824
Using Graphics for Publication
Create and design desktop publishing documents using a variety of graphics, Pre-requisite: OST 2501. Pre-requisite OR Co-requisite: OST 225. Lecture: 1.0 credits (15 contact hours)
Components: Lecture

OST 2503(1) Course ID:016825
Creating Superior Publications
Design and create superior publications using desktop publishing software. Pre-requisite: OST 2502 Pre-requisite OR Co-requisite: OST 225. Lecture: 1.0 credits (15 contact hours)
Components: Lecture

OST 2751(0.5) Course ID:005806
Office Management Principles
Includes introductory management principles and techniques for the modern business office. Lecture: 0.5 credits (7.5 contact hours)
Components: Lecture

OST 2752(1) Course ID:005807
Managing Human Resources in the Office
Includes management principles and techniques and their application to the management of human resources in the modern business office. Pre-requisite: OST 2751. Lecture: 1 credit (15 contact hours)
Components: Lecture

OST 2753(0.5) Course ID:005808
Managing Office Administrative Services
Management principles and techniques for the modern business office as they apply to the development of an information system and the management of physical resources are included. Pre-requisite: OST 2751. Lecture: 0.5 credit. (7.5 contact hours)
Components: Lecture

OST 2754(1) Course ID:005809
Managing Office Administrative Systems
Includes quality management principles and techniques for the administrative systems in a modern business office. Pre-requisite: OST 2751. Lecture: 1 credit. (15 contact hours)
Components: Lecture

OTA 101(3) Course ID:006668
Introduction to Occupational Therapy
Introduces the profession of occupational therapy by examination of history, philosophy, and theoretical foundations. Examines roles of Occupational Therapist (OT) and Occupational Therapy Assistant (OTA) with respect to education, credential, employment settings, and ethics. Outlines usage of Occupational Therapy Practice Framework, medical terminology, group dynamics, and communication skills. Pre-requisite: Admission to OTA program or permission of instructor. Lecture/Lab: 3.0 credits (90 contact hours)
Components: Lecture
 Attributes: Technical

OTA 113(2) Course ID:006669
Applied Anatomy and Kinesiology
Studies the musculoskeletal and nervous systems of the human body in relationship to movement and function. Emphasizes the upper extremity and shoulder girdle. Focuses on innervation of muscles, muscle grouping, forfuction, and common problems seen when these systems are affected by disease/injury. Introduces the analysis/sort movement in specific life tasks. Uses the goniometer for joint measurement, manual muscle testing for strength, and promotes familiarity with the terms and techniques used in assessing motor function. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (60 contact hours)
Components: Lecture
 Attributes: Technical

OTA 115(2) Course ID:006881
Skills and Interventions I
Develops the basic foundational principles/applications of occupational therapy, such as the concept of baseline, therapeutic interventions, techniques, analysis, selection, safety, and adaptive skill development as the basis of an individual’s occupational performance. Provides explanation and introductory lab practice of occupational therapy assistant elements. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (60 contact hours)
Components: Lecture
 Attributes: Technical

OTA 116(2) Course ID:006882
Media Principles and Procedures I
Develops skills in planning, implementing and evaluating occupational therapy for individuals experiencing deficits in occupational performance through the analysis of human occupation and subsequent methods of remediation, compensating, grading, and/or modifying activities and environments for optimal occupational performance. Develops communication skills necessary for documentation and patient interaction. Focuses on appropriate treatment and need for awareness of ethical, cultural, and socio-economic factors that impact individuals. Provides opportunities for students to develop skills in activity analysis, functional mobility, therapeutic crafts, and modalities. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (60 contact hours)
Components: Lecture
 Attributes: Technical

OTA 125(2) Course ID:006883
Assistive Technology and Documentation
Presents various methods of documentation used in occupational therapy settings for evaluation, intervention, justification of payment for equipment, discharge, and other client records, and requirements of third party payers. Explores assistive technology to facilitate knowledge in a broad range of devices, services, strategies, and practices conceived and applied to decrease the problems faced by individuals. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (60 contact hours)
Components: Lecture
 Attributes: Technical

OTA 126(1) Course ID:006870
Level IA Fieldwork
Provides the opportunity to observe and participate in various settings appropriate to occupational therapist 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 communications 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 treatment, and application of treatment. Introduces practice models to guide treatment applications, including procedures for multiple conditions in physical dysfunction. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 4.0 credits (120 contact hours)
Components: Lecture
 Attributes: Technical
OTA 146(3) Course ID:006872
Occupational Therapy in Mental Health
Presents typical and dysfunctional behavior using the occupational therapy approach as it pertains to mental health practice settings. Explores alternative methods and settings for mental health practice. Co-requisite: Admission to OTA program and permission of instructor. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

OTA 206(2) Course ID:006873
Community Practice
Explores the current and emerging practice areas of occupational therapy in the immediate and future needs. Focuses on occupation-based practice, holistic, wellness, and prevention models applied throughout the lifespan. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

OTA 216(2) Course ID:006884
Media Principles and Procedures II
Provides the student the opportunity to apply skills in evaluating and planning occupational therapy for individuals experiencing deficits in occupational performance in a safe and efficient manner. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

OTA 225(2) Course ID:006885
Skills and Interventions II
Incorporates analysis, instruction and implementation of occupational therapy treatment techniques. Provides opportunities to apply theoretical concepts in practice situations, involving higher-level activities of daily living, comprehensive analysis, purposeful activity, modalities and neuro-educational re-education. Applies implementation skills necessary for entry-level IIB fieldwork and to work as an entry-level occupational therapy assistant. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

OTA 226(1) Course ID:006874
Level IIB Fieldwork
Provides the opportunity to observe and participate in various settings appropriate to occupational therapy service but not necessarily within a therapy department or under an occupational therapy professional. Provides opportunities to develop intermediate skills in the occupational therapy process. Provides opportunities for students to advance therapeutic skills and to generalize skills and knowledge from the classroom to the practice setting. Emphasizes application of information learned to other situations. Prepares students for National Board for Certification in Occupational Therapy (NBCOT) certification examinations. Pre-requisite: Admission to OTA program and permission of instructor. Clinical: 1.0 credit (60 contact hours).
Components: Clinical
Attributes: Technical

OTA 236(2) Course ID:006875
Professional Transitions and Management
Explores professional issues related to the transition from student to practitioner. The relationship of the occupational therapy assistant (OTA) has with other health care professionals, identification of licensure and certification requirements, professional memberships, job search strategies, methods of reimbursement, and development of professional resources to become a successful entry level therapist. Pre-requisite: Admission to OTA program and permission of instructor. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

OTA 246(3) Course ID:006876
Pediatric Issues in Occupational Therapy
Examines occupational therapy in the pediatric population. Investigates how physical, emotional, and cognitive processes begin, change, and develop from birth through adolescence. Addresses concepts of occupation and pediatrics. Encourages students to view treatments holistically while learning normal developmental milestones and various disabilities. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 3.0 credits (75 contact hours).
Components: Lecture
Attributes: Technical

OTA 256(2) Course ID:006877
Elder Issues in Occupational Therapy
Explores the concerns for occupational therapy in the aging population. Examines how physical, emotional, and cognitive processes change through adulthood. Discusses the concepts of occupational therapy throughout the life span employing a holistic approach to intervention. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

OTA 276(5) Course ID:006879
Level II B 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 practice through the first of two successive fieldwork rotations in unique healthcare settings/institutions. Pre-requisite: Admission to OTA program and permission of instructor. Practicum: 5.0 credits (300 contact hours).
Components: Practicum
Attributes: Technical

OTA 277(5) Course ID:007411
Level II A 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 practice through the first of two successive fieldwork rotations in unique healthcare settings/institutions. Pre-requisite: Admission to OTA program and permission of instructor. Practicum: 5.0 credits (300 contact hours).
Components: Practicum
Attributes: Technical

OTA 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. Pre-requisite: OTA 206 OR OTA 276. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

PGL 111(3) Course ID:007051
Legal Systems and Terminology
Provides an overview of major principles and functions of the state and federal legal systems, introductory legal fields for professionals, presents legal vocabulary, gives an overview of different areas of law, and presents ethics. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading and writing OR completion of Transitional reading and writing courses. Co-requisite: PGL 112. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

PGL 112(3) Course ID:007052
Legal Research
Introduces the basics of 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 113(3) Course ID:007053
Law Office Management
Provides practical application of daily legal office skills needed in the legal field, professional environments, and with the public. Emphasizes ethics. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading and writing OR completion of Transitional reading and writing courses. Co-requisite: PGL 111. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

PGL 211(3) Course ID:007054
Family Law
Examines the areas of law pertaining to domestic relations, emphasizing ethics. Pre-requisite: PGL 111 and PGL 112. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

PGL 212(3) Course ID:007055
Legal Writing
Includes composition of legal communications, briefs, memoranda, and other legal documents, with an emphasis on ethical considerations. Pre-requisite: PGL 111 and PGL 112. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

PGL 213(3) Course ID:007056
Civil Litigation I
Presents the litigation process and emphasizes the structure of the court system. Includes gathering information and evidence, summarization of records, and preparing a case. Pre-requisite: PGL 111.
and PGL 112. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

PGL 21(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 22(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 23(3) Course ID: 007061
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 under 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

PHA Pharmacy

PHA 104(2) Course ID: 004160
Parenterals
A basic understanding of working with admixtures. Focuses on aseptic technique and basic sterile compounding. Lecture: 1 credit (15 contact hours); Laboratory: 1 credit (45 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

PHA 110(6) Course ID: 004159
Pharmacy Procedures and Skills
Introduces the field of pharmacy. Includes pharmacy technician responsibilities, legal requirements, safety issues, and basic skills of a pharmacy technician. Lecture: 4.0 credits (60 contact hours); Lab: 2.0 credits (90 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

PHA 125(2) Course ID: 004161
Pharmaceutical Calculations
Covers basic math review, percentage strengths, ratio and proportion, conversion between the apothecary and metric systems, and intravenous calculations. Focus is on equivalencies and calculation of drug dosages. Pre-requisite: MAT 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 any adverse reactions that might occur. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

PHA 145(3) Course ID: 001968
Pharmaceutical Calculations
Covers basic math review, percentage strengths, ratio and proportion, conversion between the apothecary and metric systems, and intravenous calculations. Focuses on equivalencies and calculation of drug dosages presented through lecture and student participation in lab activities. Pre-requisite: MAT 065 or equivalent. Lecture: 2.0 credits (30 contact hours); Lab: 1.0 credit (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: PGL 111 and PGL 112. Co-requisite: PHA 205. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

PHA 205(1) Course ID: 001932
Admixture Preparations
Provides the opportunity to become proficient in the techniques of IV admixing and in the use of related equipment associated with sterile product preparation. Pre-requisite: (PHA 110 and 136) with a grade of C or greater). Co-requisite: PHA 200 or Consent of Instructor. Lab: 1.0 credit (45 contact hours).

Components: Laboratory
Attributes: Technical

PHA 210(6) Course ID: 001934
Drug Classifications
Provides a study of therapeutic principles and classifications, drug nomenclature, and dosage forms related to the tinctures of the body. Pre-requisite: (PHA 110 and 136 with a grade of C or greater). Co-requisite: PHA 205 or Consent of Instructor. Lecture: 6.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

PHA 250(1 - 8) Course ID: 001936
Instructor Consent Required
Pharmacy Experience
Provides work experience in the pharmacy setting to enhance skills required to reach occupational goals for the pharmacy technician. Pre-requisite: Consent of Instructor. Clinical: 1.0 - 8.0 credits (60-480 contact hours).

Components: Clinical
Attributes: Technical

PHB Phlebotomy

PHB 100(6) Course ID: 001938
Phlebotomy
Prepares the student as an integral member of the healthcare team to collect blood from patients/donors in hospitals, blood banks or clinics for analysis or other medical purposes. Includes standard precautions, record keeping, and therapeutic communication skills. Lecture/Lab: 6.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

PHB 120(6) Course ID: 003809
Fundamentals of Clinical Laboratory Phlebotomy
Fundamental techniques of areas of the clinical laboratory appropriate to the phlebotomy technician. Includes a study of medical ethics, medical terminology, anatomy and physiology of the circulatory system, professional organizations, communication, record keeping, specimen collection, chain of custody, laboratory safety, and quality control. Lecture: 3 hrs; Laboratory: 9 hrs. Pre-requisite: CPR Certification, MalpractiCensure, Hepatitis, Varicella, PPD, Rubella, and Rubella blood work results.

Components: Laboratory, Lecture
Attributes: Technical

PHB 151(1) Course ID: 004072
Instructor Consent Required
Phlebotomy for the Health Care Worker
Prepares the student as an integral member of the health-care team to collect blood from patients/donors in hospitals, blood banks or clinics for analysis or other medical purposes. Practices standard precautions, record keeping, vital signs and therapeutic communication skills. Pre-requisite: PHB 151.

Components: Lecture
Attributes: Technical

PHB 152(1) Course ID: 004175
Phlebotomy Clinical Experience
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.

Components: Lecture
Attributes: Technical

PHB 153(4) Course ID: 004479
Advanced Topics in Phlebotomy
Prepares the student to become 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 phlebotomy technician. Pre-requisite: PHB 151 Phlebotomy for the Healthcare Professional, PHB 100

Components: Lecture
Attributes: Technical

PGY Physiology

PGY 206(3) Course ID: 000848
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)
PHI 100(3)  
**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)  
**Medical Ethics**  
Introduces examination and application of major ethical theories to specific moral questions related to healthcare. Lecture: 3 credits (45 contact hours).

**Components:** Lecture  
**Attributes:** AH - Arts and Humanities

PHI 120(3)  
**Introductory Logic**  
Covers argumentation, syllogistic and sentential logic. Focuses on the use of formal methods in the construction and criticism of actual arguments, the aim being to inculcate standards of good reasoning, e.g., clarity, consistency, and validity. Lecture: 3.0 credits (45 contact hours).

**Components:** Lecture  
**Attributes:** AH - Arts and Humanities

PHI 130(3)  
**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)  
**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)  
**Business Ethics**  
 Presents ethical theories and techniques of moral reasoning used to analyze moral issues in business. Applieasethics and reasoning to current issues of management, employees, government, public safety, and the environment. Lecture: 3 credits (45 contact hours).

**Components:** Lecture  
**Attributes:** AH - Arts and Humanities

PHI 160(3)  
**Philosophy Through Pop Culture**  
Surveys major philosophical themes, such as value, morality, evil, friendship, beauty, God, reality, and the meaning of life, and applies these themes to an examination of how they are represented in several sources of popular culture, including literature, film, art, music, media, and stage. Pre-requisite: ENG 101. Lecture: 3.0 credits (45 contact hours).

**Components:** Lecture  
**Attributes:** AH - Arts and Humanities

PHI 170(3)  
**Philosophy of Religion**  
Introduces students to issues in philosophy of religion, including defining the concept of God, arguments for and against the existence of God, the relation between faith and reason, the nature of religious experience, the problem of evil, and immortality. Pre-requisite: ENG 101. Lecture: 3.0 credits (45 contact hours).

**Components:** Lecture  
**Course Equivalents:** REL 170

PHI 200(3)  
**Professional Responsibility**  
Assess the proper role of ethics within different professional settings, examining different professional codes of ethics and approaches to leadership and professionalism. Examines the nature of the professional-client relationship, recurring moral dilemmas, and the role of professionals in society. Develop a professional portfolio and practical professional skills. Lecture: 3 credits (45 contact hours).

**Components:** Lecture  
**Attributes:** AH - Arts and Humanities, Other

PHI 250(3)  
**Symbolic Logic**  
Introduces students to the methods of formal deductive logic with emphasis upon applications to mathematics, computer science, and philosophical reasoning. Covers the language and rules of formal logic as well as techniques of formal proof. Pre-requisite: MAT 107. Lecture: 3 credits (45 contact hours).

**Components:** Lecture  
**Attributes:** QR - Quantitative Reasoning

PHI 260(3)  
**History of Philosophy I: From Greek Beginnings to the Middle Ages**  
Provides an introductory study of the development of Western philosophy from ancient through late medieval times, including the development of fields such as logic, metaphysics, epistemology, and ethics. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).

**Components:** Lecture  
**Attributes:** AH - Arts and Humanities

PHI 270(3)  
**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)  
**Special Topics in Philosophy: Topic**  
Examines special topics in philosophy. Includes, but not limited to, individual philosophers, movements, writings, traditions, and selected eras. Lecture: 3.0 credits (45 contact hours).

**Components:** Lecture  
**Attributes:** Other

PHI 300(3)  
**Philosophy of Science**  
Presents ethical theories and techniques of ethical reasoning used to analyze moral issues in business. Lecture: 1.0 credits (15 contact hours).

**Components:** Lecture  
**Attributes:** Other

PHI 1503(1)  
**Defending Business Ethics**  
Evaluates current theories of corporate responsibility. Pre-requisite: PHI 1502. Lecture: 1.0 credits (15 contact hours).

**Components:** Lecture  
**Attributes:** Other

PHX 150(3)  
**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 translational and rotational mechanics, fluid, electric and thermal energy systems. Problem solving techniques and scientific method are stressed throughout this course. Pre-requisite: MAT 116 or MAT 126. Lecture: 3 credits (45 contact hours).

**Components:** Lecture  
**Attributes:** Other

PHY 151(3)  
**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 PHYS 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)  
**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)  
**Physics and Astronomy for Elementary Teachers**  
Addresses basic concepts of astronomy and physics appropriate for elementary teachers and is taught with an emphasis on inquiry-based, laboratory activities. Topics include the basics of the motion of objects, astronomy by sight, electrical circuits, magnetism and the behavior of light. Companion course to GLY 160. Pre-requisite: GLY 160. Lecture: 1 credit hour (15 contact hours). Lab: 2 credit hours (75 contact hours).

**Components:** Laboratory, Lecture  
**Attributes:** SL - Science Laboratory, SN - Science
PHY 162(1) Course ID:000475
Attributes: SL - Science Laboratory
Components: Laboratory
Physics for Health Sciences
Surveys selected topics in electricity, magnetism, and optics. Pre-requisite: (MA 108 or (MT 115 or greater) or Equivalent math placement score) or consent of instructor. Lecture/Lab: 0.5 credit (9.37 contact hours).
Components: Lecture
 PHY 1710(1) 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

PLB Plumbing
PLB 100(3) Course ID:004325
Basics 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 code appropriate for each installation will also be studied. Laboratory: 3 credits (135 contact hours).

Components: Laboratory
Attributes: Technical

PLB 150(3) Course ID: 001945

Plumbing, Introduction to the Trade
Introduces the origin and basic principles of the plumbing industry. Includes the orientation of methods associated with the plumbing industry. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

PLB 151(3) Course ID: 001946

Basic Plumbing Skills
This course introduces the student to basic pipe joining techniques. Co-requisite: PLB 150. Laboratory: 3 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

PLB 163(2) Course ID: 001949

Plumbing Fixtures
Develops the skills necessary to rough-in and install a kitchen group and laundry fixtures for residential and commercial applications. Pre-requisite: PLB 150. Co-requisite: PLB 250. Laboratory: 2 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

PLB 250(3) Course ID: 001950

Plumbing Appliances & Fixtures
Presents the installation practices of residential water heaters (electrical and gas); and the installation of commercial water heating systems with pumps, controls, and valve systems. Study will also include sitework layout and testing. Pre-requisite: PLB 150. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

PLB 251(2) Course ID: 001951

Pumps and Water Heaters
Develops skills in the installation of plumbing appliances (water heater), and appurtenances. Pre-requisite: PLB 150. Co-requisite: PLB 250. Laboratory: 2 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

PLB 260(2) Course ID: 001953

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).

Components: Lecture
Attributes: Technical

Laboratory: 1 credit (45 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

PLB 298(4) Course ID: 004251

Instructor Consent Required
Practicum/Repairs & Maintenance
Designed to provide the student with experience in the plumbing industry. This will be a non-paid evaluation of a student’s developed skills. Pre-requisite: Consent of instructor. Practicum: 4 credits (180 contact hours).

Components: Practicum
Attributes: Technical

PLB 299(4) Course ID: 001958

Instructor Consent Required
Cooperative Education
Provides students with experience in the plumbing industry. This will be a paid evaluation of a student’s developed skills. Pre-requisite: Consent of Instructor. Co-op: 4 credits (300 contact hours).

Components: Co-op
Attributes: Technical

PLS 190(3) Course ID: 015757

Introduction to Paralegal Studies
Introduces state and federal judicial systems and paralegal roles and careers. Emphasizes legal terms of professional conduct, legal ethics and unauthorized practice of law by non-lawyers. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: University Course (Western Kentucky University)

PLS 200(3) Course ID: 016621

Legal Ethics
Study, analysis and application of codes of professional responsibility and standards of conduct governing the practice of law in state and federal courts. Semester Hours: 3.0 Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: University Course (Western Kentucky University)

PLS 250(3) Course ID: 016631

Legal Research and Writing
The purpose of this course is to provide students with an understanding of the legal research process and an introduction to research in general. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: University Course (Western Kentucky University)

PLW 100(4) Course ID: 006695

Introduction to Engineering Design
Provides an introduction to the engineering profession, engineering disciplines, and technology. Emphasizes an “problem-solving” approach, engineering design process, and team projects. Lecture/Lab: 4.0 credits (150 contact hours).

Components: Lecture
Attributes: Technical

PLW 125(4) Course ID: 006696

Principles of Engineering
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 fermetailing, and kinematics. Pre-requisite: PLW 100. Lecture/Lab: 4.0 credits (150 contact hours).

Components: Lecture
Attributes: Technical

PLW 130(4) Course ID: 007197

Principles of Biomedical Sciences
Engages students in the study of human medicine, research processes and an introduction to biotechnologies. Introduces 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, and relationships that define function and defend against disease. Outlines all the courses in the Biomedical Sciences’ program and lays 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 133(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
Attributes: Technical

PLW 140(4) Course ID: 015805

Medical Interventions
Focuses on exploring a variety of interventions involved in the prevention, diagnosis and treatment of disease. Uses a How-To manual to introduce prevention of and fighting of infection; how to screen and evaluate the codein 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 importance of scientific thinking and engineering design play in the development of interventions of the future examined. Pre-requisite: PLW 135. Lecture: 4.0 credits (150 contact hours).

Components: Lecture
Attributes: Technical

PLW 143(4) Course ID: 016544

Biomedical Innovation
Leads students to apply their knowledge and skills to answer questions or solve problems related to the biomedical sciences in a capstone course. Facilitates student design of innovative solutions for the health challenges of the 21st century in areas such as clinical medicine, physiology, biomedical engineering, and public health. Provides the opportunity to work on an independent project with a mentor, or advisor from an university, hospital, physician’s office, or health industry provider. Students present their work to an audience including representatives from the local business and healthcare community. Pre-requisite: PLW 600. Lecture/Lab: 4 credits (150 contact hours).

Components: Lecture
Attributes: Technical

PLW 150(4) Course ID: 006697

Digital Electronics
This course uses computer simulations and hands on laboratory to teach students about the logic of electronics they design, test, and construct electronic circuits and devices. Lecture: 1 credit (15 contact hours). Lab: 3 credits (45 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

PLW 200(4) Course ID: 006698

Aerospace Engineering
The major focus of the Aerospace Engineering (AE) course is to expose students to the world of aeronautics, flight, and engineering. They will employ engineering and scientific concepts in the solution of aerospace problems. Pre-requisite: PLW-100, PLW-125,
and PLW-150. Lecture/Lab: 4.0 credits (150 contact hours).

Components: Lecture

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: 4.0 credits (150 contact hours).

Components: Lecture

Attributes: Technical

PLW 250(4) Course ID:006700
Computer Integrated Manufacturing
The purpose of the Computer Integrated Manufacturing course is to expose students to the fundamentals of computerized manufacturing technology. The course includes: Computer Modeling; CNC Equipment; CAD Software; Robotics; and Flexible Manufacturing Systems. Pre-requisite: PLW-100, PLW-125, and PLW-150. Lecture/Lab: 4.0 credits (150 contact hours).

Components: Lecture

PLW 295(4) Course ID:006701
Engineering Design and Development
Engineering student teams research, design, and construct a solution to open-ended engineering problem using product development lifecycle and the design process; presentation to defend solutions to a panel of outsiders. Pre-requisite: PLW 150 AND one of the following: PLW 200, OR PLW 225, OR PLW 250, OR Consent of the APC and/or Instructor. Lecture/Lab: 4.0 credits (150 contact hours).

Components: Lecture

PMX Power Mechanics/Measurement

PMX 100(3) Course ID:001962
Precision Measurement
This class introduces the student to the basic fundamentals of precision measurement and its application in the industrial setting. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: Technical

PLS Political Science

POL 101(3) Course ID:000912
American Government
Examines national government and the political process in the United States, with emphasis on the Constitution, the President, Congress, and the judicial system. Focuses on the nature of American democracy, political challenges, and opportunities. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: -

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: -

PSC Professional Studio Artist

PSC 112(3) Course ID:006850
Ceramics I
Introduces traditional clay forming skills, their development and use in the 21st century. Investigates handbuilding, wheelthrowing, and decorative techniques. Lab: 3.0 credits (90 contact hours).

Components: Laboratory

PSC 115(3) Course ID:006851
Ceramics II
Investigates and improves ceramic techniques in wheel throwing, basic glaze applications, surface decoration, and traditional firings. Develops and advances individual techniques and skills. Pre-requisite: PSC 112. Lab: 3.0 credits (90 contact hours).

Components: Laboratory

PSC 117(3) Course ID:006852
Glaze Calculations
Examines glaze calculation, technology and the raw ceramic materials used to create glazes for ceramics art and production. Lab: 3.0 credits (90 contact hours).

Components: Laboratory

PSC 210(3) Course ID:006853
Ceramics III
Investigates Ceramics construction techniques, glazing, surface decoration and firing. Continues to develop techniques and execution of individual's aesthetic and functional creativities. Lab: 3.0 credits (90 contact hours).

Components: Laboratory

PSC 211(3) Course ID:006854
Kiln Operation and Design
Introduces various types of kilns and firing operations. Investigates Raku, pit and downdraft gas kiln designs. Lab: 3.0 credits (90 contact hours).

Components: Laboratory

PSC 212(3) Course ID:006855
Ceramic Production Techniques
Examines properties and characteristics of slip casting and mold-making techniques. 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 213(3) Course ID:006856
Ceramics IV
Investigates 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: Laboratory

PSG Polysomnography

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 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: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Technical

PSG 111(1) Course ID:005277
Polysomnography Lab I
Provides practical experience on the equipment used during a standard sleep study. The set-up, calibration, attachment, artifact recognition and troubleshooting of electroencephalographic (EEG), electro-oculographic (EOG), electromyographic (EMG), pulse oximetry (SpO2), body position, airflow, chest and abdominal movement/position 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. Lecture: 2.0 credit (30 contact hours).

Components: Laboratory

Attributes: Technical

PSG 115(3) Course ID:005278
Polysomnography Practice I
Provides clinical experience and training in the basic skills required of an entry-level polysomnographic technologist. Includes instrumentation set-up and calibration, recording and monitoring technologyniques, documentation, professional issues and patient-technologist interactions related to polysomnographic technology. Clinical: 3 credits (180 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: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Technical
PSI 110(3) Course ID:005067
Jewelry/Metals I
Introduces the tools, techniques, and materials of the professional jeweler/metalsmith with an emphasis on the design and completion 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

PSI 115(3) Course ID:005068
Jewelry/Metals II
Continues PSI 110 and a further introduction to the tools, techniques, and materials of the professional jeweler/metalsmith. Emphasizes working more 3-dimensionally and with greater complexity through the design and completion of jewelry projects. Pre-requisite: PSI 110 or Consent of Instructor. Lab: 3.0 credits (90 contact hours).
Components: Laboratory Attributes: Technical
PSM 115(2) Course ID:005555
Bluegrass & Traditional Band/Ensemble
Pairs two or more instrumentalists in a group/ensemble setting, in order to explore the components and structure of a ‘band’ under the guidance of a professional band leader. May be repeated with different subject for a maximum of 8 credits. Lab: 2.0 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

PSM 116(2) Course ID:005558
Bluegrass & Traditional Harmony/Part Singing
Introduces basic bluegrass and traditional harmony/part singing and theory using ear training, number notation and basic chords. Pre-requisite: MUS 174 or Consent of Instructor. Lab: 2.0 credits (60 contact hours).
Components: Laboratory

PSM 117(1) Course ID:007261
Songwriting II
Provides guidance through the process of creating and refining original melodies and lyrics under the direction of a professional songwriter, emphasizing different techniques while overcoming barriers. Pre-requisite: PSM 107 or Consent of Instructor. Lab: 1.0 credit (30 contact hours).
Components: Laboratory

PSM 118(2) Course ID:007262
Bluegrass & Traditional Harmony/Part Singing
Introduces basic bluegrass and traditional harmony/part singing and theory using ear training, number notation and basic chords. Pre-requisite: MUS 174 or Consent of Instructor. Lab: 2.0 credits (60 contact hours).
Components: Laboratory

PSM 121(3) Course ID:005557
Bluegrass & Traditional Music History II: Evolution of Old Time, Folk and Early Bluegrass
Provides an in-depth study of old time, folk and early bluegrass music genres and their components, exploring connections between radio, labor conflict, war and early professional musicians. Pre-requisite: PSM 101 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Components: Lecture

PSM 125(1) Course ID:005558
Recording II
Provides practical studio and set-up training for recording sessions utilizing software and computers. Pre-requisite: PSM 105 or Consent of Instructor. Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Technical

PSM 128(1) Course ID:005559
Songwriting II
Provides guidance through the process of creating and refining original melodies and lyrics under the direction of a professional songwriter, emphasizing different techniques while overcoming barriers. Pre-requisite: PSM 108 or Consent of Instructor. Lab: 1.0 credit (30 contact hours).
Components: Laboratory

PSM 217(2) Course ID:007263
Songwriting III
Provides guidance through the process of creating and refining original melodies, lyrics and music under the direction of a professional songwriter, emphasizing writing for specific media and multi-writer collaboration. Pre-requisite: PSM 117 or Consent of Instructor. Lab: 2.0 credits (60 contact hours).
Components: Laboratory

PSM 227(2) Course ID:007264
Songwriting IV
Provides guidance through the process of creating an effective demo and marketing original songs under the direction of a professional songwriter, emphasizing the completed demo project. Pre-requisite: PSM 217 or Consent of Instructor. Lab: 2.0 credits (60 contact hours).
Components: Laboratory

PSM 231(3) Course ID:005560
Bluegrass & Traditional Music History III: Early Stringband & Country Music
Provides an in-depth study of early stringband, country music and promotion pioneers, focusing on the role of early radio and barn dances. Pre-requisite: PSM 121 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

PSM 235(2) Course ID:005561
Recording III
Provides an in-depth study of computer and Pro Tools software, recording techniques and applications. Pre-requisite: PSM 125 or Consent of Instructor. Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

PSM 238(2) Course ID:005562
Songwriting III
Provides guidance through the process of creating and refining original melodies, lyrics and music under the direction of a professional songwriter, emphasizing writing for specific media and multi-writer collaboration. Pre-requisite: PSM 128 or Consent of Instructor. Lab: 2.0 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

PSM 241(3) Course ID:005563
Bluegrass & Traditional Music History IV: The Masters & Their Music
Provides a comprehensive study of the music and careers of the iconic figures in bluegrass & traditional music from 1936 to present. Requires listening to recordings, reading the primary text, and reading suggested articles from industry periodicals. Pre-requisite: PSM 231. Lecture: 3.0 credits (45 contact hours). Components: Lecture

PSM 245(2) Course ID:005564
Recording IV
Provides an advanced and complex study of recording, mixing and editing software session data to finished products. Pre-requisite: PSM 235 or Consent of Instructor. Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory

PSM 248(2) Course ID:005565
Songwriting IV
Provides guidance through the process of creating an effective demo and marketing original songs under the direction of a professional songwriter, emphasizing 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 PSM 240). Pre-requisite: Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

PSM 111(3) Course ID:005056
Introduction to Furniture Making
Introduces tools, techniques, and materials of the professional woodworker, 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
PSY Psychology

PSY 110(3) Course ID: 000563
General Psychology
Introduces the history, methods and content of modern psychology. Covers the history and systems of psychology, psychological research, physiological psychology, psychological processes, developmental psychology, personality, abnormal behavior and social psychology. Pre-requisite: ACT, COMPASS, or ASSET score(s) 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 tutorial techniques, and leadership skills. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading OR completion of Transitional reading and writing 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 188(1) Course ID: 000604
Directed Undergraduate Reading in Psychology
Explores in-depth a specific topic related to the student’s personal or career interests in psychology under the direction of a faculty member. Reading proposal must be approved by instructor. Pre-requisite: PSY 110 and consent of instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Other

PSY 189(1 - 2) Course ID: 000606
Directed Undergraduate Research in Psychology
Requires students to design and conduct an elementary research project relevant to the student’s personal or career interests in psychology under the direction of a faculty member. Requires development of a psychology literature review. Research proposal must be approved by instructor. Pre-requisite: PSY 213 and consent of instructor (If PSY 215 is changed to PSY 213 Research Methods Laboratory: 1.0 - 2.0 credits (30-60 contact hours).
Components: Laboratory
Attributes: Other

PSY 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(4) Course ID: 002255
Research Methods
Applies scientific methods to psychological research. Provides practical experience in designing and executing research projects involving observational, survey, and/or true experimental design methodologies. Requires application of descriptive and inferential statistics and written report of research project results. Pre-requisite: PSY 110. Lecture: Lab: 4.0 credits (75 contact hours).
Components: Lecture
Attributes: Other

PSY 223(3) Course ID: 000488
Developmental Psychology
Examines physical, cognitive, emotional, and social development throughout the lifespan from conception to death. Reviews concepts, principles, and theories of developmental psychology. Explores influences upon psychological development such as heredity, culture, ethnic, socioeconomic status, and gender. Pre-requisite: PSY 100 or PSY 110. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other

PSY 230(3) Course ID: 000387
Psychosocial Aspects of Death and Dying
Examines the biopsychological, psychological, sociological, and cultural aspects of death and dying in the evolving global world. Explores variations in the beliefs and attitudes associated with death, dying, bereavement, with particular attention to the contexts (e.g., cultural, familial, historical, lifespan development) in which these variations occur. Pre-requisite: PSY 110 or SOC 101, or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

PSY 239(3) Course ID: 004818
Psychology of Aging
Examines the biological, social, and psychological impact of aging, longevity work, retirement, death and bereavement. Pre-requisites: PSY 110 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other

PSY 288(3) Course ID: 004819
Essentials of Abnormal Psychology
Provides an overview of the theories, diagnoses, and treatments of psychological disorders. Covers the biological, psychological, and social factors that influence the etiology, understanding, and management of psychopathology within society. Pre-requisite: PSY 110 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other

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 1100(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 1102(0.6) Course ID: 006216
Senses, Perception and Emotion
Addresses the history, methods, and content of modern psychology to include physiological psychology and psychological processes. 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 processes. Pre-requisite: PSY 1102. Lecture: 0.6 credit (9 contact hours).
Components: Lecture

PSY 1104(0.6) Course ID: 006218
Personality & Social Aspects
Addresses the history, methods, and content of modern psychology to include psychological processes. Pre-requisite: PSY 1103. Lecture: 0.6 credit (9 contact hours).
Components: Lecture

PSY 1801(1) Course ID: 016655
Concepts in Human Relations
Explores basic concepts related to the sociological and psychological forces that affect interpersonal relationships as individuals work and live together. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

PSY 1802(1) Course ID: 016656
Communication and Diversity
Explore communications and diversity related to the sociological and psychological forces that affect interpersonal relationships as individuals work and live together. Pre-requisite: PSY 1801. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

PSY 1803(1) Course ID: 016657
Human Relations and Stress
Explore human relations and health to include the impact of stress and emotions and how they relate to the sociological and psychological forces that affect interpersonal relationships as individuals work and live together. Pre-requisite: PSY 1802. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

PSY 2231(0.6) Course ID: 006379
Foundations of Development
Introduces the principles of developmental psychology with emphasis on theory and data relating to the physical, cognitive, and psycho-social developmental aspects. Explores prenatal development through the birth process. 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. Emphases issues related to death and bereavement. Pre-requisite: PSY 2234. Lecture: 0.6 credit (9 contact hours).

Components: Lecture

PTA Physical Therapist Assistant

PTA 101(5) Course ID:01610201-AUG-2017
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 introduction to patient-care skills such as communication, aseptic techniques, body mechanics, safety procedures, wheelchair management, patient transfer, patient positioning and draping, vitalsigns, identification andfitting of ambulation aids, basic gait training, patient and consumer education. Pre-requisite: Admission to the PTA Program and completion of BIO 137 with a grade of "C" or better. Co-requisite: PTA 125. Lecture: 2 credits (30 contact hours). Lab: 3 credits (30 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 introduction to patient-care skills such as aseptic technique; body mechanics; safety procedures; wheelchair management; patient transfer; positioning and draping; gait training; passive, active, and active-assisted exercise and stretching. Pre-requisite: Admission to the PTA Program; Completion of BIO 137 & BIO 139 with a grade of "C" or better. Co-requisite: PTA 1501, 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 transfer; positioning and draping; gait training; pain assessment/passive, active, and active-assisted exercise; stretching and documentation. Lab experiences will reflect concepts taught in the paired lecture course. Pre-requisite: Admission to the PTA Program; Completion of BIO 137 & BIO 139 with a grade of "C" or better. Co-requisite: PTA 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 functional anatomy of the central and peripheral nervous systems and applies these concepts to comneuroanatomical pathologies found in rehabilitation. Pre-requisite: Admission to the PTA Program and completion of BIO 137 with a grade of "C" or better. Co-requisite: PTA 101. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

PTA 150(6) Course ID:004174
Functional Anatomy and Kinesiology
Emphasizes the structure and function of the musculoskeletal system, the relationship with biomechanical principles, basic physical principles, and the mechanical aspects of human motion. Includes muscle testing, flexibility testing, goniometry, and aspects of normal gait and posture. Pre-requisite: [Pathway 1: Admission to the PTA Program and completion of BIO 137, BIO 139, PTA 101 & PTA 125 with a grade of "C" or better] OR [Pathway 2: Admission to the PTA Program and completion of BIO 137, & BIO 139 with a grade of "C" or better]. Co-requisite: [Pathway 1: PTA 160 and PTA 170] OR [Pathway 2: PTA 120, PTA 121 and PTA 170]. Lecture: 3.0 credits (45 contact hours). Lab: 3.0 credits (90 contact hours).

Components: Laboratory, Lecture

Attributes: Course Also Offered in Modules, Technical

PTA 160(3) Course ID:004173
Medical and Surgical Conditions in Physical Therapy
Includes the study of health and disease of all age groups with an emphasis on the etiology, pathology, prevention, data collection, and physical therapy interventions in selected medical and surgical conditions encountered in physical therapy. Pre-requisite: Admission to the PTA Program and completion of BIO 137, BIO 139, PTA 101 and PTA 125 with a C or better. Co-requisite: PTA 150 and PTA 170. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: Technical

PTA 170(1) Course ID:004013
Clinical Practicum 1
Includes clinical observation and practice of selected physical therapy interventions and data collection with the application of knowledge from previous/concurrent PTA courses and general education coursework. Pre-requisite: [Pathway 1: Admission to the PTA Program and completion of BIO 137, BIO 139, PTA 101 & PTA 125 with a C or better] OR [Pathway 2: Admission to the PTA Program and completion of BIO 137 & BIO 139 with a C or better]. Co-requisite: [Pathway 1: PTA 150 and PTA 160] OR [Pathway 2: PTA 120, PTA 121, PTA 1501, and PTA 1502]. Clinical: 1 credit (60 contact hours).

Components: Clinical

Attributes: Technical

PTA 200(5) Course ID:004017
Modalities & Procedures in Physical Therapy
Includes the basic physical science principles of selected physical therapy interventions, data collection, and selected physical therapy interventions for management of patients of the following problems: musculoskeletal conditions, pathological gait, arthritides, and amputations. Includes the study of wellness and women's issues, therapeutic exercise, orthotics and prosthetics. Pre-requisite: Admission to the PTA Program; Completion of PTA 1501, PTA 1502, PTA 120, and PTA 121 with a grade of "C" or better. Completion of PTA 170 with a grade of P. Co-requisite: PTA 222, PTA 232, PTA 233, PTA 202, PTA 203, and PTA 240. Students cannot progress to PTA 240 without a grade of C or better in all other co-requisite courses. Lecture: 2 credits (30 contact hours).

Components: Lecture

Attributes: Technical

PTA 212(2) Course ID:006728
Pathology & Rehabilitation of Orthopedic Conditions Lab
Develops skills in selected physical therapy interventions and data collection for management of patients with the following problems: musculoskeletal conditions, pathological gait, arthritides, and amputations. Includes therapeutic exercise, orthotics, prosthetics, and supportive devices. Pre-requisite: Completion of PTA 1501, PTA 1502, PTA 120, and PTA 121 with a grade of "C" or better. Completion of PTA 170 with a grade of P. Co-requisite: PTA 222, PTA 232, PTA 233, PTA 240, 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

PTA 232(3) Course ID:006729
Pathology & Rehabilitation of Neurological & Pediatric Conditions
Focuses on etiology, pathology, progression, prevention, data collection, and selected physical therapy interventions for management of patients of all age groups with disabilities resulting from the following brain injury, spinal cord injury, and genetic/developmental disorders. Includes balance disorders, normal growth and development, and the rationale and techniques of neuromuscular re-education. Pre-requisite: Admission to the PTA Program; Completion of PTA 1501, PTA 1502, PTA 120, and PTA 121 with a C or better. Completion of PTA170 with a grade of P. Co-requisite: PTA 222, PTA 223, 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 233(2) Course ID:006730
Pathology & Rehabilitation of Neurologic & Pediatric Conditions Lab
Develops skills in the application of selected physical therapy interventions for patients of all age groups with disabilities resulting from the following: brain injury, spinal cord injury, genetic/developmental, and balance disorders. Includes techniques of neuromuscular re-education. Pre-requisite: Admission to the PTA Program; Completion of PTA 1501, PTA 1502, PTA 120, and PTA 121 with a grade of "C" or better. Completion of PTA 170 with a grade of "P". Co-requisite: PTA 222, PTA 223, PTA 202, and PTA 203, and PTA 240. Students cannot progress to PTA 240 without a grade of "C" or better in all other co-requisite courses. Lab: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

PTA 234(2) Course ID:016878
Pathology & Rehabilitation of Neurologic & Pediatric Conditions
Focuses on etiology, pathology, prevention, progression, data collection, and selected physical therapy interventions for management of patients of all age groups with disabilities resulting from the following: brain injury, spinal cord injury, and genetic/congenital disorders. Includes balance disorders, normal growth/development, and the rationale for the techniques of neuromuscular re-education. Pre-requisite: Admission to the PTA Program; Completion of PTA 1501, PTA 1502, PTA 120, and PTA 121 with a grade of "C" or better. Completion of PTA 170 with a grade of "P". Co-requisite: PTA 222, PTA 223, PTA 233, PTA 202, and PTA 203 and PTA 240. Students cannot progress to PTA 240 without a grade of "C" or better in all other co-requisite courses. Lab: 2 credits (30 contact hours).
Components: Lecture

PTA 240(2) Course ID:004018
Clinical Practicum II
Includes clinical observation and practice of selected physical therapy interventions and data collection with the application of knowledge from previous concurrent PTA courses and general education coursework. This course entails 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: [Pathway 1: Admission to the PTA Program and completion of: PTA 150 and 160 with a grade of "C" or better; PTA 170 with a grade of "P"; all general education courses required for completion of the Physical Therapy Assistant Program with a grade of "C" or better.] OR [Pathway 2: Admission to the PTA Program and completion of: PTA 120, PTA 121, PTA 1501, and PTA 1502 with a grade of "C" or better; PTA 170 with a grade of "P"; Co-requisite: PTA 202, PTA 203, PTA 222, PTA 223, PTA 233, PTA 234, and PTA 240. Students cannot progress to PTA 240 without a grade of "C" or better in all co-requisite courses. Lab: 2 credits (30 contact hours).
Components: Practicum
Attributes: Technical

PTA 250(C) Course ID:004019
Neurological Rehabilitation in Physical Therapy
Focuses on rehabilitation procedures, including assistive devices, for patients of all age groups with disabilities resulting from brain injury, spinal cord injury, genetic/developmental disorders, and other neuromusclulare disorders. Includes normal growth and development and the rationale and techniques of neuromuscular re-education. Pre-requisite: Admission to the PTA Program and completion of: PTA 200 and 220 with a grade of "C" or better and PTA 240 with a grade of "C" or better. Pre-requisite or Co-requisite: PTA 260. Pre-requisite or Co-requisite: PTA 280. If taken as a Pre-requisite to PTA 260, must earn a grade of "C" or better for PTA 250. Lecture: 3 credits (45 contact hours). Laboratory: 2 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

PTA 254(1) Course ID:006731
Pathology & Rehabilitation of Special Populations & Conditions
Emphasizes the etiology, pathology, prevention, data collection, and selected physical therapy intervention for management of patients with the following conditions: respiratory system, cardiovascular system, metabolic, and rheumatologic pathologies; psychiatric pathologies; infectious diseases; oncologic; 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 grade of "C" or better. Completion of PTA 240 with a grade of "C" or better. P. Co-requisite: PTA 255, PTA 260, and PTA 280. Students cannot progress to PTA 280 without a grade of "C" or better in all other co-requisite courses. Lab: 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical

PTA 255(1) Course ID:006732
Pathology & Rehabilitation of Special Populations & Conditions Lab
Develops skills in the application of selected physical therapy interventions for patients with the following problems: respiratory system, cardiovascular system, metabolic, and rheumatologic pathologies; psychiatric pathologies; infectious diseases; oncologic; thermal injuries; integumentary disorders, and wounds. Includes therapeutic exercise and wound care. Pre-requisite: PTA 222, PTA 223, PTA 232, PTA 233, PTA 202, and PTA 203, and PTA 240. Students cannot progress to PTA 240 without a grade of "C" or better in all other co-requisite courses. Lab: 2 credits (30 contact hours).

Components: Laboratory
Attributes: Technical

PTA 256(2) Course ID:016884
Pathology & Rehabilitation of Special Populations & Conditions
Emphasizes the etiology, pathology, prevention, data collection, and selected physical therapy intervention for management of patients with the following conditions: respiratory system, cardiovascular system, metabolic, and rheumatologic pathologies; psychiatric pathologies; infectious diseases; oncologic; thermal injuries; integumentary disorders, and wounds. Includes therapeutic exercise and wound care. Lecture: 2 credits (30 contact hours).

Components: Lecture

QMS Quality Management Systems

QMS 101(3) Course ID:004464
Introduction to Quality Systems
Students are introduced to fundamental concepts, principles, and practices used to improve quality 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-assessment, personal mission statements, time management, communication and listening techniques, coaching, mentoring, group problem solving, and decision making techniques. Lecture: 3 credits (40 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 maximizing performance and quality. Data are used to measure and evaluate effectiveness of performance. Organizational and individual behavior will be studied in the context of increasing performance and quality. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
and optimum process factor settings. Computer software manufacturing illustrate how to reduce product variability.

Analysis of means, analysis of variance, and contrast testing are developed. Gauging Studies and decision making techniques are introduced. Pre-requisite: QMS 242 or Consent of Instructor.

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 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 and improve quality of products and service. Investigates sampling principles. Uses computer-generated analyses. Pre-requisite: MA 109 or MT 150. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

Statistics for Quality II

Builds upon the foundation of QMS 240 techniques of inferential statistics. Confidence interval estimation, hypothesis testing, regression analysis, ANOVA, and non-parametric tests are developed. Gauging Studies and SPC techniques for short production runs are included. Lecture: 3 credits (45 contact hours). Pre-requisite: QMS 240.

Components: Lecture
Attributes: Technical

QMS 251(3) Course ID:000668 Strategic Quality Planning

Introduces strategic concepts of planning as a proactive catalyst for organizational and quality improvement. Examines the process of envisioning, environmental scanning, mission formulation, and benchmarking. Promotes action planning and leadership for its implementation. Pre-requisite: QMS 101 or Consent of Instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

QMS 262(4) Course ID:000694 Design of Experiments

Basic statistical methods are reviewed. Statistical techniques which parallel methods of SPC are introduced. Analysis of means, analysis of variance, and contrast comparisons are studied to facilitate the understanding of the different experimental design methods. Examples from manufacturing illustrate how to reduce productivity variability and optimum process factor settings. Computer software is utilized throughout the course. Lecture: 3 credits (45 contact hours). Laboratory: 1 credit (30 contact hours). Pre-requisite: QMS 242 or Consent of Instructor.

Components: Laboratory, Lecture

QMS 299(1 - 6) Instructor Consent Required

Selected Topics in Quality Management Systems:
- (Topic)
  - Quality issues selected are considered in this course.

Topics vary from semester to semester. This course may be repeated with different topics for a maximum of 6 credits. Lecture: 1-3 credits (15-90 contact hours). Pre-requisite: Consent of Instructor.

Components: Lecture
Attributes: Technical

QMS 101(0.6) 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) 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) 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) 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) 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 2011(1) Course ID:006199 Personal Effectiveness for Quality Customer Service

Provides for development of cognitive processes and behavioral skills needed to improve personal and workgroup effectiveness. Includes self-evaluation, personal mission statements, time management, communication and decision making techniques, coaching, mentoring, group problem solving, and decision making techniques. Pre-requisite: QMS 101 or consent of Instructor. Lecture: 1 credit (15 contact hours).

Components: Lecture

QMS 2012(1) Course ID:006200 Understanding the Customer

Includes techniques for assessing internal and external customer needs and developing plans for delivery of quality customer service. Includes customer’s point of view, benchmarking quality customer service processes, and developing partnerships with customers. Pre-requisite: QMS 2011 or consent of Instructor. Lecture: 1 credit (15 contact hours).

Components: Lecture

QMS 2013(1) Course ID:006201 Analyzing the Health of the Customer Service Relationship

Includes how to measure customer satisfaction, using decision making techniques. Pre-requisite: QMS 2012 or Consent of Instructor. Lecture: 1 credit (15 contact hours).

Components: Lecture

QMS 2021(0.6) Course ID:005170 Introduction to Performance Management

Emphasis on performance management and the ABC 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 reinforcing and techniques in delivering reinforcers. Pre-requisite: QMS 2021 or consent of 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 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 120(3) Course ID:005363 Introduction to Chinese Culture

Examines economic, political, cultural, and social realities that offer more opportunities and engagement at every level for non-native Chinese people. Includes some basic vocabulary. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

RAE 140(4) Course ID:004228 Elementary Modern Standard Arabic

Introduces students to the standard written language of the Arab world. Provides initial emphasis upon the phonology and script, followed by gradual coverage of the grammar, with exercises in reading, writing, pronunciation, and vocabulary building. Lecture: 4 credits (60 contact hours).

Components: Lecture
Attributes: Other

RAE 150(4) Course ID:004057 Elementary Chinese I

Introduces basic modes of communication in Chinese. Stresses speaking, listening, reading and writing as target skills. Emphasizes everyday language which the students will learn by applying essential grammatical structures to vocabulary. Presents an overview of the cultures of China. Lecture: 4.0 credits (60 contact hours).

Components: Lecture
Attributes: Foreign Language, Cultural Studies

RAE 151(4) Course ID:004058 Elementary Chinese II

Continues the study of basic Chinese through grammar, reading, and oral practice. Stresses speaking and listening as the target skills, and 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
Cardiopulmonary Anatomy and Physiology
Provides an in-depth analysis of the respiratory and circulatory systems with emphasis on the interaction of systems in gas exchange and acid-base balance as well as the structure and function of the chest cage, mechanics of breathing and control of respiration. Lecture: 3 credits (45 contact hours). Pre-requisite: BIO137 with a grade of C or better. Co-requisite: BIO 137.
Components: Lecture
Attributes: Technical

RCP 110(3) Course ID:003786
Cardiopulmonary Anatomy and Physiology
Provides an in-depth analysis of the respiratory and circulatory systems with emphasis on the interaction of systems in gas exchange and acid-base balance as well as the structure and function of the chest cage, mechanics of breathing and control of respiration. Lecture: 3 credits (45 contact hours). Pre-requisite: BIO137 with a grade of C or better. Co-requisite: BIO 137.
Components: Lecture
Attributes: Technical

RCP 120(4) Course ID:003877
Theory and Principles of Respiratory Care
Presents the principles and techniques of therapeutic procedures used in respiratory care, including an emphasis on medical asepsis, safe handling and administration of medical gases, uses of humidity, aerosol therapy, lung inflation techniques, bronchial hygiene therapy and airway care. Pre-requisite or Co-requisite: (BIO 137 and [MAT 110 or MAT 146 or MAT 150 or equivalent]) with a grade of C or better if taken as Pre-requisite). Lecture: 3 credits (45 contact hours). Lab: 1 credit (60 contact hours).
Components: Laboratory, Lecture
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, lung inflation techniques, bronchial hygiene therapy, airway management, medical asepsis and development of the respiratory care plan. Pre-requisite: ([MAT 110 or MAT 146 or MAT 150] and [BIO 137] and [BIO 139]) with a grade of C or better or consent of instructor. Lecture: 3 credits (45 contact hours). Lab: 1 credit (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

RCP 125(4) Course ID:003788
Cardiopulmonary Evaluation
Examines cardiopulmonary assessment with in-depth coverage of invasive and non-invasive arterial blood gas interpretation, electrocardiography and assessment of chest and neck imaging. Pre-requisite: (RCP 110 and BIO137 and [MT 110 or MT 145 or MT 150 or equivalent]) with a grade of C or better. Pre-requisite or Co-requisite: RCP 122 with a grade of C or better; Valid Health Care Provider CPR card. Clinical: 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 BIO137) and [MT 110 or MT 145 or MT 150] with a grade of C or better; Co-requisite: RCP 110 and [MT 110 or MT 145 or MT 150].
Components: Lecture
Attributes: Technical

RCP 140(2) Course ID:004835
Cardiopulmonary Assessment
Emphasizes blood gas analysis, pulmonary function studies, electrocardiography and chest radiography. Pre-requisite: ([RCP 110 and RCP 122] and RCP 130) with a grade of C or better) or consent of instructor. Lecture: 1.5 credits (22.50 contact hours). Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

RCP 150(2) Course ID:003790
Clinical Practice I
Provides an opportunity for observation and/or performance of techniques for chest physical assessment, medical gas administration, humidity and aerosol therapy and bronchial hygiene in the assigned setting. Pre-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 157(3) Course ID:003791
Clinical Practice II
Provides an opportunity to participate in the health care team while practicing techniques of respiratory care including airway management and bronchial hygiene in the assigned setting. Pre-requisite: RCP 150 with a grade of C or better; Clinical: 3 credits (180 contact hours).
Components: Clinical
Attributes: Technical

RCP 167(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 or Co-requisite: RCP 122 with a grade of C or better; Valid Health Care Provider CPR Card. 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 RCP150 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; Consent of instructor. Lecture: 1.5 credits (22.50 contact hours). Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

RCP 190(2) Course ID:003793
Advanced Ventilatory Support
Addresses advanced concepts in ventilatory support, including physiologic effects, indications, monitoring and management of the patient-ventilator system. Pre-requisite: RCP 180 with a grade of C or better. Lecture: 1 credits (15 contact hours); Laboratory: 0.5 credits (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

RCP 195(4) Course ID:004838
Patient-Ventilator System Management
Addresses advanced concepts in ventilatory support including monitoring and management of the patient-ventilator system. Pre-requisite: ([RCP 185 and RCP 201]) with a grade of C or better) or consent of instructor. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

RCP 200(3) Course ID:003794
Clinical Practice III
Provides practice in adult mechanical ventilation procedures and airway management in the critical care setting and in the assigned setting. Pre-requisite: (RCP 176 and RCP 185) with a grade of C or better; Consent of instructor. Clinical: 2 credits (120 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 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: BIO113 with a grade of C or better. Lecture: 2.5 credits (37.50 contact hours). Laboratory: 0.5 credits (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

RCP 229(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 228(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(2) 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: [RCP195 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: .25 credit (15 contact hours).
Components: Laboratory, Lecture Attributes: Technical

RCP 245(2) Course ID:004845
Advanced Cardiac Life Support
Focuses on managing acute cardiovascular emergencies including cardiac arrest, acute myocardial infarction and stroke. Students demonstrating essential knowledge and skills and obtaining 85% or greater on the written exam will receive an American Heart Association ACLS provider card. Lecture: 1.5 credits (22.50 contact hours). Laboratory: 0.5 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

RCP 250(3) Course ID:003801
Clinical Practice V
Prepares students to participate in effective and efficient planning, managing and delivering respiratory care to diverse client populations in various settings. Pre-requisite: RCP 225 with a grade of C or better. Clinical: 3 credits (180 contact hours).
Components: Clinical Attributes: Technical

RCP 251(4) Course ID:004843
Respiratory Care Practice V
Prepares students to plan, manage, and deliver respiratory care to diverse client populations in various settings. Enables students to practice mechanical ventilation techniques and observe/practice techniques of advanced life support. Pre-requisite: [RCP 195 and RCP 210 and RCP 212 and RCP 226] with a grade of C or better] or Consent of Instructor. Clinical: 4 credits (240 contact hours).
Components: Clinical Attributes: Technical

RCP 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 RCP210 and RCP 212 and RCP 225] with a grade of C or better] or Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture Attributes: Technical

RDG 203(0.5) Course ID:002286
Improved College Reading
Improves proficiency in reading comprehension, vocabulary, and critical thinking skills, and prepares studentsfor college and career reading through individualized and/or group instruction and practice. Pre-requisite: As determined by KCTCS Placement Policy. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Remedial - Reading, Course Also Offered in Modules

RDG 203(1) Course ID:002287
Reading for the College Classroom
Improves critical reading skills by developing vocabulary techniques, active reading strategies, comprehension accuracy, and interpretation of visual elements in text. Applies theories and strategies taught in the course to college and career reading materials. Pre-requisite: As determined by KCTCS Placement Policy, or successful completion of RDG 020. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Remedial - Reading, Course Also Offered in Modules

RDG 41(1) Course ID:006805
Reading Laboratory
Designed to improve reading comprehension, vocabulary, and critical thinking skills. Strategies taught in this course will be applied to college level materials. Pre-requisite: Compass score 81-83. Lab: 1.0 credit (15 contact hours).
Components: Laboratory Attributes: Remedial - Reading

RDG 96(4) Course ID:016767
Introduction to College Reading
Improves proficiency in reading comprehension, critical thinking skills, and critical reading skills by developing vocabulary techniques, active reading strategies, comprehension accuracy, and interpretation of visual elements in text. Pre-requisite: Current KCTCS placement policy. Lecture: 4.0 credits (60 contact hours).
Components: Lecture

RDG 110(3) Course ID:015658
Reading Workshop
Improves reading comprehension and vocabulary of expository materials by improving student's comprehension processes and reading-related study skills. Applies strategies and skills taught in the course to applied college level materials. Pre-requisite: KCTCS Placement Policy. Lecture: 1.0-3.0 credits (15-45 contact hours).
Components: Lecture

RDG 185(3) Course ID:000301
College Reading
Designed to improve critical reading, thinking, and writing at the college level by identifying the components of expository, persuasive, argumentative, and research text, including the author's use of tone, purpose, biased language and writing patterns. Apply strategies to college level text. Pre-requisite: KCTCS Placement Policy. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

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 KCTCSPayment Policy. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture Attributes: Remedial - Reading

RDG 202(0.75) Course ID:006738
Transitions, Thought Patterns
Construct meaning from texts through analyzing transitions and patterns of organization to improve comprehension and critical thinking skills. Pre-requisite: As determined by KCTCS Placement Policy. Lecture:.75 credits (11.25 contact hours).
Components: Lecture Attributes: Remedial - Reading

RDG 185(0.75) Course ID:006934
Valid Supports
Identify patterns of writing and discern facts from opinions to determine valid supports. Use patterns and valid supports to organize ideas for a summary or concept map. Pre-requisite: RDG 1852. Lecture:.75 (11.25 contact hours).
Components: Lecture

RDG 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 wordcombinations. Constructs meaning from visual elements to improve comprehension of text. Pre-requisite: As determined by KCTCS Placement Policy. Lecture: .75 credits (11.25 contact hours).
Components: Lecture Attributes: Remedial - Reading

RDG 301(0.75) Course ID:006741
Critical Reading
Uses active learning, prior knowledge, and metacognitive strategies to quickly enhance comprehension. Uses active learning, prior knowledge, and self-assessment strategies to quickly enhance comprehension of text. Pre-requisite: As determined by KCTCS Placement Policy, or successful completion of RDG 202. 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 202. 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 202. Lecture: .75 credits (11.25 contact hours).
Components: Lecture Attributes: Remedial - Reading

RDG 304(0.75) Course ID:006744
Words and Visual Elements
Construct meaning from word parts, context clues, connotation, and denotation for accurate comprehension often. 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 202. Lecture: .75 credits (11.25 contact hours).
Components: Lecture Attributes: Remedial - Reading

RDG 185(1.0) Course ID:006993
Critical Reading
Apply Active Reading. Metacognitive processes and analyze common text structures and supporting details to improve basic critical reading skills. Pre-requisite: current KCTCS placement policy. Lecture: .75 (11.25 contact hours).
Components: Lecture

RDG 185(0.75) Course ID:006994
Valid Supports
Identify patterns of writing and discern facts from opinions to determine valid supports. Use patterns and valid supports to organize ideas for a summary or concept map. Pre-requisite: RDG 1852. Lecture:.75 (11.25 contact hours).
Components: Lecture
Introduces real estate as a business and as a profession, designed to acquaint the student with the wide range of subjects necessary to the practice of real estate. Includes license law, ethics, purchase and lisitng arrangements, brokerage, deeds, financing, appraisals, mortgages, and real estate property management. 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 the concepts and procedures necessary in the appraisal of real estate. Includes license law and real estate practice; brokerage concepts; employment agreements; license regulation and enforcement; sales control; and financial control. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
 Attributes: Technical

REA 201(3) Course ID:000815
Property Management
Examines the basics of managing income-producing real estate. Includes management plans, tenant selection, marketing and advertising, accounting methods, net operating income statements, maintenance, and the landlord-tenant relationship. Pre-requisite: 100. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

REA 202(3) Course ID:000875
Real Estate Investments I
Introduces various types of real estate investments. Includes 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) Commercial and Industrial Property
Course ID:000527
Commercial and Industrial Property
Covers classifications of commercial and industrial properties. Includes investment, environment, financing, taxes, depreciation, ownership, cash flow projection, and discount analysis. Integrates computer applications. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

REA 204(3) Land Planning and Development
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) Farm Brokerage
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) Real Estate Investments II
Course ID:000194
Real Estate Investments II
Includes an analysis of operations and cash flow with detailed instruction on the use and calculation of a financial statement. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

REA 220(3) Real Estate Brokerage Management
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) Basic Income Approach to Property Valuation
Course ID:004772
Basic Income Approach to Property Valuation
Provides students with a foundation in the basic concepts and procedures necessary in the appraisal of real estate. Includes license law and real estate practice; brokerage concepts; employment agreements; license regulation and enforcement; sales control; and financial control. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
 Attributes: Technical

REA 222(1) Uniform Standards of Professional Appraisal
Course ID:004773
Uniform Standards of Professional Appraisal
Provides an understanding and appreciation of the Uniform Standards of Professional Appraisal (USPAP) and how these standards set the minimum foundation on which both the development of an appraisal and theproper interpretation 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: 212 or 212prerequisite license. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

REA 225(3) Real Estate Finance
Course ID:000432
Real Estate Finance
Examines all aspects of real estate finance including financial instruments, financial institutions, buy/sell arrangements, 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

REL 101(3) Introduction to Religious Studies
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, cultural, and political institutions within this timeframe. Lecture: 3 credits (45 contact hours).

Components: Lecture
 Attributes: AH - Arts and Humanities, SB - Social Behavior Science

REL 120(3) Introduction to the Old Testament
Course ID:005282
Introduction to the Old Testament
Introduces books of the Hebrew Bible (Old Testament) using knowledge of literary forms as well as historical and cultural backgrounds to aid in the interpretation of the religious and philosophical meanings of the text. Lecture: 3 credits (45 contact hours).

Components: Lecture
 Attributes: AH - Arts and Humanities

REL 121(3) Introduction to the New Testament
Course ID:005283
Introduction to the New Testament
Introduces New Testament writings 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) Introduction to Comparative Religion
Course ID:000360
Introduction to Comparative Religion
Introduces students to a comparative analysis of world religions, emphasizing beliefs, rituals, expressions, and cultural and social organization. Includes both Eastern and Western religions. (Same as ANT130). Lecture: 3 credits (45 contact hours).

Components: Lecture
 Attributes: A - Arts

REL 150(3) Christianity in Cultural Context
Course ID:007063
Christianity in Cultural Context
Surveys the historical and theological movements in Christianity from the 1st century to the mid-16th century. Emphasis will be placed on the interaction of Christian institutions and religious movements with other prevailing social, cultural, and political institutions within this timeframe. Lecture: 3 credits (45 contact hours).

Components: Lecture

REL 153(3) Comparative Ethics of Major World Religions
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. Lecture: 3 credits (45 contact hours).

Components: Lecture
 Attributes: Technical
traditions from both Eastern and Western Religions. Considers the lives, sacred stories, dogma and texts of central religious figures as part of the context for moral thinking in a global setting. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

REL 170(3) Course ID:005523
Philosophy of Religion
Introduces students to issues in philosophy of religion including defining the concept of God, arguments for and against the existence of God, the relation between faith and reason, the nature of religious experience, the problem of evil, and immortality. Lecture: 3 credits (45 contact hours).

Components: Lecture Course Equivalents: PHI 170 Attributes: AH - Arts and Humanities, Other

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:008946
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
Attributes: Other

REL 299(3) Course ID:006868
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 301(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 302(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 301. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
REL 303(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 301. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

RES Respiratory Care

RES 299(1 - 4) Course ID:002271
Selected Topics in Respiratory Care: Topic
A special project or experience in Respiratory Care will be selected to enhance core material in the Respiratory Care Program. It provides the student and opportunity for independent study and specialized instruction as approved by the instructor. This course may be repeated to a maximum of 6 hours.

Components: Lecture
Attributes: Technical

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. Mathematical 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: SW - Science

SDC Student Development

SDC 100(1) Course ID:004847
College Survival Seminar
This course is designed to introduce new students to college in order to facilitate their first experience. Students will discover campus resources and support services available to them. Students will be introduced to career and life planning, study strategies, coping skills (i.e., stress management, interpersonal relationships), team projects, activities aimed at self discovery, and issues that impact college campuses and our global society that are important to the development of the modern college student. Lecture: 1 credit (15 contact hours).

Components: Lecture Attributes: Other

SDC 102(1) Course ID:004848
Stress Management
Students will review various physiological and psychological approaches to stress with an emphasis on creating an awareness of how to manage and deal with stressful situations. Options and appropriate exercises for coping with anxiety will be presented. Topics will include time management, cognitive restructuring, health, wellness and relaxation training. Lecture: 1 credit (15 contact hours).

Components: Lecture Attributes: Other

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:000923
Sign Language I
Includes a functional-rotational approach to a beginning competency in Sign Language. Incorporates grammar, sign language, and cultural information. (After an 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 102(3) Course ID:000804
Sign Language II
Includes a functional-rotational approach designed to follow SET 101 that will enhance student’s knowledge of Sign Language and expand their understanding and appreciation of the people who use it. Pre-requisite: SET 101. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Foreign Language, Cultural Studies

SET 203(3) Course ID:000530
Sign Language III
Emphasizes the practical application of signing, skills, development of cross-cultural communication abilities and vocabulary expansion. Reviews linguistic information and introduces additional language materials. Prerequisite: SET 102. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Foreign Language, Cultural Studies

SET 204(3) Course ID:000833
Sign Language IV
Continues the expansion of sign vocabulary, sharpening of conversational skills including fingerspelling and numbers, semantics, morphology, syntax and other sign language features applied to conversational settings. Pre-requisite: SET 203. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Foreign Language, Cultural Studies

SET 110(3) Course ID:002003
Basic Small Engine Theory
This course introduces the student to the principles of construction and operation of internal combustion engines including the definitions of the following terms: valve overlap, reed valve, 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, 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 ignitionsystems. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

SET 119(1) Course ID:002008
Powerhead Overhaul Lab
This course presents hands-on experience in overhauling two-cycle motors, turning-up motors and repairing/ 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).

Components: Lecture
Attributes: Technical

SET 121(2) Course ID:002010
Mid-Section, Lower Unit and Trim/Tilt Lab
This course presents hands-on instruction in the theory necessary to repair and/or replace parts in the mid-section, lower units, and trim/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 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 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 an alternator/ generator 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 fuel filters, and the types of fuel pumps and air filters. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

SET 221(1) Course ID:002018
Fuel Systems Lab
This course provides hands-on experience with fuel systems. The student will diagnose carburetor problems, rebuild diaphragm-type and float type carburetors, test carburetors and make needed adjustments, and adjust the governor according to manufacturers' specifications on two-cycle and four-cycle engines. Co-requisite: SET 220. Laboratory: 1 credit (45 contact hours).

Components: Laboratory
Attributes: Technical

SET 231(3) Course ID:002019
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 finaldrives 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 (150 contact hours).

Components: Laboratory
Attributes: Technical

SET 232(2) Course ID:002020
Carburetors and Fuel Systems
The student will be able to identify parts of a motorcycle carburetor and discuss the components and operations of various carburetor circuits. The student will also be able to remove, clean, and install 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
Chassis 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/clearence and valve train components. The student will use special tools including cylinder hone, valve guide reamer, valve seat cutter, and valve grinder and demonstrate safety practices while using this equipment. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

SET 241(1) Course ID:002026
Four Stroke Cycle Engine Lab
In this course, students repair and overhaul four-cycle engines, inspect engines for problems, follow servicemanuals specifications needed for measuring cylinder bore, piston fit, ring clearance, rod clearance, crankshaft/clearance and valve train components. Students use the following special tools: cylinder hone, valveguide reamer, valve seat cutter, and valve grinder. Safety practices will be observed while using 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 train 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, piston fit, 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 deckassemblies. The student will also learn how to perform preventative maintenance, adjust wheel bearings, checksteering alignment and remove and replace
tires. This course will introduce the student to special tools, tires 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 perform basic welding operations. Laboratory: 1 credit (45 contact hours).

Components: Laboratory
Attributes: Technical

**SET 259(2)**  
Course ID:002031  
Portable Two Cycle Equipment Lab  
This class will enable the student to identify the external parts of the equipment, operate equipment, handle and mix fuel, and transport and handle trimmers and saws. Instruction will be given to identify and diagnose related problems in chain saws, trimmers and other two-stroke cycle equipment. Laboratory: 2 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

**SFA Safety and First Aid**  
**SFA 100(1)**  
Course ID:002034  
Safety and First Aid  
Safety and First Aid is a course designed to teach current strategies relative to designated emergencies situations as put forth by the National Safety Council or American Red Cross. The National Safety Council or American Red Cross standardized course qualifies a student for certification in safety and first aid. Lecture: 1 credit (15 contact hours).

Components: Lecture
Attributes: Technical

**SFA 101(3)**  
Course ID:004735  
OSHA, Health, & Environmental Safety  
The basics of OSHA compliance in addition to covering the principles of industrial health and safety, environmental regulations, and industrial requirements with a focus on personal safety and health. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

**SMT Surveying**  
**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, stake plane coordinates, control surveys, and public land surveys. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

**SMT 130(3)**  
Course ID:006733  
Land Surveying Graphics  
Covers graphical communication in surveying and mapping, fundamentals of projection, map projection theory, 3D viewing, spatial relationships and viewpoints, plots, profiles, cross-sections, sketches for field notes and presentations in technical reports, map accuracy standards, plotting data from field notes and datacollection, 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 error, 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, 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  
Examines 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 drillholes, bench surveys, layout of blasting patterns, haul road layout, transfer of control from surface 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 230, 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  
Examines 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
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)**  
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 151(3)**  
Course ID:000844  
Social Interaction  
Examines the fundamental sociological and social psychological processes underlying human interaction. Focuses on the dynamics of symbolic exchange, the social context and processes shaping it, and examines its effects on the formation and maintenance of social and personality systems. Pre-requisite: SOC 101 or PSY 110 or Consent of Instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SB - Social Behavior Science

**SOC 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  
Examines 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  
Media, Society, and Culture  
Examines the interplay between media, culture, and society. Pre-requisite: SOC 101 or permission of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: SB - Social Behavior Science
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

SP 293(3) Course ID:000260
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 family, and rural sociology. Pre-requisite: SOC 101 or RSO 182. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: University Course (Western Kentucky University)

SPA 101(4) Course ID:000922
Elementary Spanish I (spoken approach)
Introduces basic modes of communication in Spanish. Stressing 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-corrective exercises that will be practised 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. Stressing speaking, listening, reading and writing as target skills. Emphasizes everyday language which the students will learn by applying essential grammatical structures to vocabulary. Provides an overview of the culture of various Spanish-speaking countries. Pre-requisite: SPA 101, or consent of the department and placement test. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Foreign Language, Cultural Studies, Course Also Offered in Modules

SPA 110(3) Course ID:003884
Basic Conversational Spanish
Introduces pronunciation, practical structures, and basic vocabulary designed to enable students to communicate using simple Spanish in everyday situations in Spanish-speaking countries and areas of the United States. Cannot be used for major or minor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other

SPA 115(3) Course ID:000261
Hispanic Culture: (Country or Region)
Introduces the basic cultural patterns of a Spanish-speaking country or region through in-class experience/ or travel. May be taken up to two times with focus on different country or region. Lecture: 3.0 credits (45 contact hours).

SPA 118(3) Course ID:000924
Spanish for School Life
Introduces basic modes of communication to discuss school life and everyday activities; focuses on asking questions and describing people and things; introduces the present tense of estar (to be) and expressions of time. Pre-requisite: SPA 101. Lecture: 3 credits (45 contact hours).
Components: Lecture

SPA 120(3) Course ID:000925
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 200. Pre-requisite must be satisfied by consent of the department. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

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 160(3) Course ID:000926
Spanish for Travel
Presents conversations to discuss and plan a vacation; expands communication to talk about feelings; introduces the present progressive tense and the verbs "ser" and "estar" to express descriptions, conditions and emotions; explores the geography, culture, history, and political issues of Spanish-speaking countries. Pre-requisite: SPA 101. Lecture: 0.8 credit (12 contact hours).
Components: Lecture

SPA 170(3) Course ID:000927
Spanish for Shopping
Highlights conversations and vocabulary in the shopping setting; introduces verbs for to know and practice answering questions of to whom or for whom a product is done; presents prefix to express past tense; explores the geography, culture, history, and political issues of Spanish-speaking countries with focus on Peru. Pre-requisite: SPA 101. Lecture: 0.8 credit (12 contact hours).
Components: Lecture

SPA 190(3) Course ID:000928
Spanish for Celebrations
Highlights conversations and vocabulary in the celebration setting; explores the geography, culture and history of Spanish-speaking countries with focus on Ecuador. Pre-requisite: SPA 101. Lecture: 0.8 credit (12 contact hours).
Components: Lecture

SPA 200(3) Course ID:000929
Intermediate Spanish I
Focuses on intermediate level speaking, listening, reading, and writing skills with an emphasis on more advanced grammatical structures; emphasizes the language to expand vocabulary; examines current issues, cultural nuances, and dominant Hispanic themes. Pre-requisite: SPA 102, or consent of department and placement test. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Foreign Language, Cultural Studies

SPA 211(3) Course ID:004678
Spanish Conversation
Focuses on intermediate level speaking, listening, reading, and writing skills with an emphasis on more advanced grammatical structures; focuses on the present tense of -er and -ir verbs, uses the verbs tener and venir to express needs and state of mind; explores the imperfect and preterit past tense; explores the geography, culture, history, and political issues of Spanish-speaking countries with focus on Cuba. Pre-requisite: SPA 201. Lecture: 3 credits (45 contact hours).
Components: Lecture
 Attributes: Foreign Language, Cultural Studies

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. Applies mathematical models and ranking methods to 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).
Statistics: A Force in Human Judgment

Introduction to Statistical Reasoning

The goal of this course is to help students develop or refine their statistical literacy skills. Both their formal activity of human inference arising from statistical constructs, as well as the more formal perspectives on statistical inference found in confidence intervals and hypothesis tests are studied. Throughout, the emphasis is on understanding what distinguishes good and bad inferential reasoning in the real world of us. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

STA 210(3) Course ID:005196

Making Sense of Uncertainty: An Introduction to Statistical Reasoning

Examines the interaction of the science and art of statistics in everyday life emphasizing examples from theoretical 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:009938

Introduction to Statistical Reasoning

Introduction to descriptive statistics, normal distributions, linear correlation and regression, sampling, experiments, chance phenomena, one- and two-sample estimation and hypothesis testing, chi-square tests, and use of statistical software. Pre-requisites: Completion of all developmental requirements (reading, writing, and mathematics). Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: QR - Quantitative Reasoning, Course Also Offered in Modular

STA 291(3) Course ID:008641

Statistical Method

Introduction to principles of statistics. Statistical description of sample data including frequency distributions, measures of central tendency, and measures of dispersion. Theoretical distributions, statistical estimation, and hypothesis testing. Introduces simple linear regression and correlation. Pre-requisite: MAT 150 or equivalent. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: QR - Quantitative Reasoning, Course Also Offered in Modular

STA 296(3) Course ID:016128

Statistical Methods and Motivations

Introduction to principles of statistics with emphasis on conceptual understanding. Students will articulate results of statistical description of sample data (including bivariate), application of probability distributions, confidence interval estimation and hypothesis testing to demonstrate properly contextualized analysis of real-world data. Pre-requisite: MA 113, MA 123, MA 137, or equivalent. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

STA 220(3) Course ID:006640

Descriptive Statistics

Examines description of sample data including frequency distributions, measures of central tendency, and measures of dispersion. Pre-requisite: MAT 150 or equivalent. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

STA 220(1) Course ID:007407

Probability Distributions

Examines the distribution and statistical estimation. Pre-requisite: STA 2201. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

STA 220(3) Course ID:007408

Statistical Inference

Examines hypothesis testing and introduces simple linear regression and correlation. Pre-requisite: STA 2202. Lecture: 1.0 credit (15 contact hours).

Components: Laboratory

SUR 100(12) Course ID:002046

Surgical Technology Fundamentals Theory

Provides an overview of the history of surgery and the role of the surgical technicians, 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 technician 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(1) Course ID:002047

Surgical Technology Fundamentals Lab

Provides opportunity for demonstration of skills required to prepare the patient, operating room, basic equipment, and supplies; and to function as a member of an operating room team. Incorporates OSHA safety standards, aseptic technique, and duties of both the scrubbed and circulating technician 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 (AHS 130 or BIO 225 or BIO 227 or BIO 118). Current CPR certification for Healthcare Professionals. All prerequisites must be achieved with a grade of C or greater. Co-requisite: SUR 100. Pre-requisite Or Co-requisite: SUR 101. Lab: 1.0 credit (45 contact hours).

Components: Laboratory
Attributes: Technical

SUR 109(3) Course ID:005375

Introduction to Surgical Technology

Provides a brief overview of the history of surgery and an in-depth introduction of the role and responsibilities of the surgical technicians, an integral health care professional in the delivery of preoperative patient care and surgical services; including professional responsibilities, developing a professional resume, legal and ethical considerations, interpersonal relationships and communication skills. Introduces the basics of biomedical science and identifying information resources. Introduces all-hazard preparedness for the surgical technician, 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 operating setting. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

SUR 110(12) Course ID:005470

Surgical Technology Fundamentals

Incorporates safety, aseptic technique and duties of the scrubbed and the circulating surgical technician during a surgical procedure. Provides indepth information for the successful preparation, performance, and completion of basic surgical procedures; Addresses specialty areas of general surgery, ob/gyn with attendantspecialty 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


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 pharmacology, a thorough knowledge of the systems of measurement, and conversion and application of skills to perform dosage calculations. Present 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 101 - SUR 101 Pre-requisite Or Co-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).
Surgical Technology Skills Practicum II
Provides opportunity for application of techniques learned in SUR 200 in a healthcare setting performing the duties of a scrubbed and/or circulating technologist during an assigned surgical procedure with an emphasis on OSHA standards. Pre-requisite: Minimum grade of "C" in [SUR 100 or (SUR 109 and 110)] and SUR 125 and SUR 130. Co-requisite: SUR 200. Clinical: 6.0 - 7.0 credits (360-420 contact hours).

Components: Clinical
Attributes: Course Also Offered in Modules, Technical

SUR 275(2) Course ID:002053
Surgical Technology Advanced Practicum
Provides an advanced experience in a healthcare setting performing the duties of a scrubbed and/or circulating technologist during an assigned surgical procedure with limited supervision. Pre-requisite OR Co-requisite: Minimum grade of "C" in SUR 200 and SUR 201. Practicum: 2.0 credits (120 contact hours).

Components: Practicum
Attributes: Technical

SUR 282(3) Course ID:004247
Perioperative Bioscience
Promotes an understanding of microbial physiology which precedes the understanding of disease transmission/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 human patient; Introduces the student to the following: diagnostic testing such as radiology, laboratory, cardiography, wound healing, nutrition pertioperatively, fluid and electrolyte balance, and techniques in maintaining homeostasis. Pre-requisite: Program admission and student must be certified SurgicalTechnologist 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: 5.0 credits (75 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 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 camps 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. Emphasizes surgical anatomy, along with critical thinking skills, in every surgical procedure under the supervision of a surgeon who is responsible for overseeing the clinical educational experience of the student. Pre-requisite: SUR 280, SUR 284 and SUR 295. Co-requisite: SUR 282. Practicum: 3.0 credits (270 contact hours).

Components: *Practicum
Attributes: Technical

SUS 201(2) Course ID:016845
Surgical Skills I
Provides opportunity for application of techniques in a healthcare setting performing the duties of a scrubbed and/or circulating technologist during an assigned surgical procedure with an emphasis on OSHA standards. Includes aseptic techniques, plastic and reconstructive, and oral and maxillofacial surgical procedures. Practicum: 2.0 credits (120 contact hours).

Components: Practicum

SUS 202(4 - 5) Course ID:016846
Surgical Skills II
Provides opportunity for application of techniques in a healthcare setting performing the duties of a scrubbed and/or circulating technologist during an assigned surgical procedure with an emphasis on OSHA standards. Includes genitourinary, orthopedic, neurosurgery, cardiovascular, peripheral vascular, and endovascular surgical procedures. Pre-requisite: SUR 201. Co-requisite: SUR 200. Practicum: 4.0-5.0 credits (240-300 contact hours).

Components: Practicum

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: SB - Social Behavior Science, 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: SB - Social Behavior Science, Other

SUS 203(3) Course ID:016181
Sustainable Societies
Examines sustainable 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 sociological implications of resource allocations as they pertain to equity and social justice. Pre-requisite: Current KCTCS placement scores for College level reading and writing. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SB - Social Behavior Science, Other

SUS 202(3) Course ID:016182
Sustainable Urban Systems
Investigates the physical and social urban infrastructure networks as they relate to sustainability. Examines institutions, as well as the formal and informal rules, that use, manage, or govern urban physical and social infrastructures. Considers the role of private, non-profit, and other organizations and networks and systems of support that exists for environmental and sustainability-oriented activity. Pre-requisite: SUS101 Intro. To Sustainability & SUS201 Sustainable Societies. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SB - Social Behavior Science, Other

SWK Social Work

SWK 124(3) Course ID:000564
Introduction to Social Services
Introduces social welfare concepts and philosophies. Examines the profession of social work and its philosophical 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:005587
Cultural Diversity in Human Services
Explores current and historical cultural diversity in human services as it applies to clients from various cultural groups. Focuses on cultural self awareness and cultural competence as it pertains to human services professionals and client helper relationships. Draws attention to dominant and minority cultural norms, attitudes and belief systems, including the culture of poverty. Lecture: 3 credits (45 contact hours).

Components: Lecture, Course Equivalents: HIS 220
Attributes: Technical
TEC 200(1) Course ID:0016244
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. Pre-requisites: Placement in college level writing or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Other

THA 101(3) Course ID:000925
Introduction to Theatre: Principles and Practice
Cultivates students judgment, perception, and creative response to theatre, emphasizing what and how theatre communicates through examining both processes and products of theatre.

Components: Lecture
Attributes: AH - Arts and Humanities

THA 126(3) Course ID:000774
Acting I: Fundamentals of Acting
Explores a broad spectrum of skills in the creative process of acting ensemble. Includes improvisation, movement disciplines (including theatre games, modern dance, and characterization), emotional and sensory awareness, and the process of integrating these into a clearly defined stage technique. Lecture: 3.0 contact hours; Laboratory: 2.0 contact hours.

Components: Laboratory, Lecture
Attributes: Other

THA 127(3) Course ID:002264
Acting Techniques
Uses movement exercises, sensory work, theatre games and basic stage combat exercises to heighten physical awareness, release personal blocks, and discover the experience of being truthful with fellow actors. Continues with students moving on to individual work to establish physical techniques they will use when working on a production. Provides an exploration of physical and emotional awareness and development of a more creative use of their imaginations. Lecture: 1.0 credit hour (15 contact hours) Lab: 2.0 credit hours (30contact hours).

Components: Laboratory, Lecture
Attributes: Other

THA 141(3) Course ID:006781
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 (45 contact hours).

Components: Laboratory, Lecture
Attributes: Other, Pilot Course

THA 150(3) Course ID:002265
Fundamentals of Production
Includes a comprehensive study of the basic organizational structure, processes and techniques involved in theatre design, technology and management. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

THA 190(1) Course ID:000031
Instructor Consent Required
Production Practicum
Provides study and practice of production techniques through rehearsal and performance. Practicum: 1.0 credit (45 contact hours).

Components: Practicum
Attributes: Technical

THA 191(1) Course ID:002266
Instructor Consent Required
Performance Practicum
Provides study and practice of acting and directing through rehearsal and performance. Practicum: 1.0 credit (45 contact hours).

Components: Practicum
Attributes: Other

THA 192(1) Course ID:015596
Production Practicum
Provides study and practice of acting and directing through rehearsal and performance. Practicum: 1.0 credit (45 contact hours).

Components: Practicum
Attributes: Other

THA 193(1) Course ID:015597
Performance Practicum
Provides study and practice of acting and directing through rehearsal and performance. Practicum: 1.0 credit (45 contact hours).

Components: Practicum
Attributes: Other

THA 196(3) Course ID:004032
Instructor Consent Required
Summer Theatre Workshop
Includes studies in the theory and application of acting, directing and production principles supplemented by written assignments to be determined by the college Theatre program. Admission by audition or selection by director/college staff. Open to apprentice students in a Summer Theatre program. Pre-requisite: Acceptance by audition or selection by director/college staff. Lab: 1.0 - 3.0 credit hours (45 - 125 contact hours).

Components: Laboratory
Attributes: Technical

THA 200(3) Course ID:003810
Introduction to Dramatic Literature
Provides a study of representative dramatic literature from Greek Antiquity to the present.

Components: Lecture
Attributes: AH - Arts and Humanities

THA 203(3) Course ID:004433
Acting for the Camera
Provides a fundamental approach to auditioning and acting for the camera. Pre-requisite: THA 126. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

THA 228(3) Course ID:000791
Acting II: Scene Study (Realism)
Concentrates on several components of the acting process: preliminary study in modern acting theories, Stanislavski to the present; textual analysis, character study and scene work; studio exercises aimed at developing realistic acting skills. Pre-requisite: THA 126 or Consent of Instructor. Lecture: 2.0 credits (30 contact hours). Laboratory: 1.0 credit (15 contact hours).

Components: Laboratory, Lecture
Attributes: Other

THA 227(3) Course ID:002267
Acting III: Scene Study (Styles)
Introduces the actor to a performance style other than realism while continuing to develop the actor’s skill in different styles and techniques. Pre-requisite: THA 226 or Consent of Instructor. Lecture: 2.0 credit hours (30contact hours).
UPH 101(0)  Course ID:002094
Introduction to Upholstery Lab
This course provides practical experience in the use of tools, equipment, and techniques of the upholstery industry. Laboratory: 1 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

UPH 111(1)  Course ID:002096
Upholstery Fabrics and Materials Lab
This course provides practical experience in the use of upholstery fabrics, materials, and equipment. Laboratory: 1 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

VCA 102(3)  Course ID:002108
Fundamentals of Drawing
Introduces basic drawing skills and concepts as it relates to graphic design. Emphasizes how to create form in space and to draw in proper perspective for reproduction purposes. Students must receive a letter grade of "C" or better. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

VCA 105(3)  Course ID:018768
Drawing Concepts
Develops drawing skills and illustration concepts as they apply to graphic design. Emphasizes how to create form in space and to draw in proper perspective for reproduction purposes. Students must receive a final grade of "C" or better to advance in all Visual Communication courses. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

VCA 108(3)  Course ID:002110
Digital Color Theory
Explores the visual dynamics of color as it relates to graphic design, including the basic characteristics of color: hue, value, and saturation. Explores color perception and psychology, color harmonies and schemes using color wheels; RGB, CMYK, Pantone and ICC Profiles; and color correction. Students must receive a letter grade of "C" or better. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

VCA 120(3)  Course ID:002116
Digital Photography I
Introduces the skills and techniques to capture and process digital photographs. Emphasizes basic digital camera operations and lighting techniques. Includes proper techniques to import and organize photographs. Introduces basic Photoshop skills to manipulate and enhance digital photographs. Includes discussions on appropriate resolutions and file formats. Students must receive a letter grade of "C" or better. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

VCA 131(3)  Course ID:018774
Digital Photography II
Explores advanced skills and techniques to capture digital photographs using various camera functions and lenses, includes proper scanning techniques and file formats. Explores advanced skills in Adobe Photoshop tonemapping photographs for interesting compositions. Introduces RAW shooting and Camera RAW in Photoshop. Explores proper presentation skills for professional photography displays. Students must receive a final grade of "C" or better to advance in all Visual Communication courses. Pre-requisite: VCA 120 and VCC 166. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical
Students must receive a letter grade of "C" or better. Lecture/Lab: 3.0 credits (60 contact hours).

**Course Descriptions**

**VCA 151(3) Course ID: 005382**

**Digital Filmmaking I**

Provides training in non-studio video production and editing. Includes applied aesthetics and production of dramatic, informational or experimental work on video. Pre-requisite: VCA 160 and VCC 166 with a grade of C or better. Lecture: 2.0 credits (30 contact hours). Laboratory: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

**VCA 152(3) Course ID: 005383**

**Digital Filmmaking II**

Provides training in computer based editing and pre-production planning. Includes applied aesthetics of videocasting production of dramatic, informational or experimental work on video. Pre-requisite Or Co-requisite: VCA 160 and VCC 166 with a grade of C or better. Lecture: 2.0 credits (30 contact hours). Laboratory: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

**VCA 160(3) Course ID: 000203**

**Commercial Photography I**

Teaches the use of 35 mm cameras, printers, enlargers, and laboratory equipment in relation to black and white photography. Includes basic photographic methods and skills in acquiring, developing, printing and presentation of photographs. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

**VCA 161(3) Course ID: 000207**

**Commercial Photography II**

Continues the study of the 35mm camera as it relates to commercial art primarily in a studio setting using digital photography. Includes problem solving through assigned projects. Pre-requisite: VCA 160 with a grade of C or better or consent of instructor. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical

**VCA 170(3) Course ID: 000212**

**Advertising Design I**

Introduces the principles and practices of graphic design. Includes terminology and procedures commonly used in graphic design, along with the Macintosh computer system and software used in illustration and graphic design for the print media and for the Internet, and navigation through and searching for information on the Internet using a web browser. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Computer Literacy, Technical

**VCA 171(3) Course ID: 005395**

**Advertising Design II**

Explores basic to intermediate skills in electronic publishing, design layout, type composition, and prepress for printing and publishing applications. Pre-requisite: VCA 170 with a grade of C or better or Consent of Instructor. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

**VCA 240(3) Course ID: 002123**

**Package Design**

Explores the development of brand identity as it relates to packaging. Introduces concepts, theories, terminology, design, and production of hard and soft wall three-dimensional packaging and product labels. Emphasizes creative problem solving and legal requirements for the packaging industry. Students must receive a letter grade of "C" or better. Pre-requisite: VCC 125 and VCC 110. Lecture: 3.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

**VCA 250(3) Course ID: 004553**

**Advertising Design**

Explores and reviews the role of advertising in the marketing mix, and the function of major media forms. Uses a creative brief process to research, create, and design promotional concepts that meet assignment specifications. Explores legal strategies involved in advertising. Students must receive a letter grade of "C" or better. Pre-requisite: VCC 125 and VCC 110. Lecture/Lab: 3.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

**VCA 251(3) Course ID: 005384**

**Digital Filmmaking III**

Provides training in single-person video production with an emphasis on Electronic News Gathering style video. Covers news, interviews, TV commercials, and documentaries. Pre-requisite: VCA 251 with a grade of C or better or Consent of Instructor. Lecture: 2 credits (30 contact hours). Laboratory: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

**VCA 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 credits (30 contact hours). Laboratory: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

**VCA 255(3) Course ID: 001220**

**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 created 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: 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 (60 contact hours). Laboratory: 2 credits (60 contact hours/30:1 ratio).

Components: Laboratory, Lecture
Attributes: Technical

**VCA 271(4) Course ID: 000215**

**Advertising Design IV**

Extends VCA 270 to include creation of a professional portfolio. Pre-requisite: VCA 270 with a grade of C or greater or Consent of Instructor. Lecture: 2 credits (30 contact hours). Laboratory: 2 credits (60 contact hours/30:1 ratio).

Components: Laboratory, Lecture
Attributes: Technical

**VCA 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(3) Course ID: 000205**

**Instructor Consent Required/Folio Seminar**

Prepares advanced design and photography students to complete a professional portfolio. Explores job interview techniques to help students understand their responsibilities in seeking positions. Lecture: 2 credits (30 contact hours). Lecture: 1 credit (30 contact hours). Pre-requisite: Consent of Instructor.

Components: Lecture
Attributes: Technical

**VCA 298(2 - 6) Course ID: 000210**

**Practicum**

Incorporates and applies skills and techniques previously learned in the classroom and commercial art laboratory. Provides practical experience in a variety of commercial art establishments in the community. Pre-requisite: VCA 280, VCA 261 or VCA 271 with a grade of C or greater or Consent of Instructor. Lecture: 0.2 credits (15 contact hours). Lab/Pacticum: 3 credits (150 contact hours/50:1 ratio).

Components: Laboratory, Lecture
Attributes: Technical

**VCC Visual Communications Core**

**VCC 100(3) Course ID: 004455**

**Introduction to Visual Communication**

Introduces the concepts, vocabulary, and processes used in relation to visual communication. Includes 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 typefaces 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 106(3) Course ID: 016769**

**Typography**

Explores the use of type as a major element of design. Students become skilled in selecting appropriate typefaces and fonts for a variety of media. Provides experience in using type as a creative tool to produce interesting, type-only designs. Applies elements and principles of design. Students must receive a final grade of "C" or better to advance in all Visual Communication courses. Lecture/Lab:
Components: Lecture
Attributes: Technical

VCC 110(3) Course ID:002117
Design Concepts
Explores in detail the elements and principles of design to develop skills in producing creative ideas and designs for various media forms. Apply concepts in the process of design that includes legal issues, media strategy, and consumer behavior. Students must complete with a final grade of “C” or better to advance in all Visual Communication courses. Pre-requisite Or Co-requisite: VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

VCC 115(3) Course ID:005141
Strategic Concepts
Introduces advertising, promotion, creative and marketing concepts related to the visual communication field. Topics also include legal issues, media strategy, and consumer behavior. Students must receive a letter grade of “C” or better. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

VCC 125(3) Course ID:006859
Computer Graphics I
Introduces students to computer applications that are specific to the visual communication industry. Develops primary skills using software applications for page layout, illustration and digital imaging. Students must complete with a final grade of “C” or better to advance in all Visual Communication courses. Lecture: Lab: 3.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

VCC 150(3) Course ID:004475
Mac Basics
Provides an introduction to Apple/Mac computer technology. Emphasizes industry specific needs, including hardware and software. Presents basic uses of the Internet, email, file management and computer ethics. This course fulfills the computer/digital literacy requirement. Students must receive a letter grade of “C” or better. 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 vectorgraphics and their use 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. Lecture: 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 signage industry. Provides knowledge in the operation of wide format printers and vinyl cutters/plotters to create special graphics used for indoor and outdoor advertising. Covers the procedures used to prepare vinylgraphics and substrates for different applications. Students must receive a letter grade of “C” or better. Pre-requisite Or Co-requisite: VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

VCC 214(3) Course ID:005731
Production Design I
Introduces concepts, vocabulary, and processes used in relation to the design and production of graphics for various media and promotional materials. Provides students with knowledge and training of various production equipment along with software applications used to design graphics. Students must receive a final grade of “C” or better to advance in all Visual Communication courses. Pre-requisite: VCC 110 & VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

VCC 216(3) Course ID:006860
Production Design II
Introduces students to the technologies of pad printing and screen printing. Provides students with knowledge and training of various equipment and procedures to properly prepare graphics files using prepress technologies. Provides students with training in appropriate software applications used to design and prepare graphics or anxiety of substrates and promotional items. Students must receive a final grade of “C” or better to advance in all Visual Communication courses. Pre-requisite Or Co-requisite: VCC 110 & VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

VCC 218(3) Course ID:006861
Production Design III
Provides basic knowledge of the steps and procedures used to prepare, troubleshoot, and correct files for digital printing. Provides students with the basic skills to produce and utilize PDF files. Provides knowledge in the importance of proper imposition and page-layout of various publications. Provides knowledge and training of various finishing and binding techniques used in the industry. Students must receive a final grade of “C” or better to advance in all Visual Communication courses. Pre-requisite: VCC 110 & VCC 125.Lecture/Lab: 3.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

VCC 220(3) Course ID:004473
Instructor Consent Required
InDesign Basics
Develops skills in page design and layout using Adobe InDesign software. Students will understand appli- cations and mechanics of page layout to produce various publications using graphic design concepts learned. Students must receive a letter grade of “C” or better. Pre-requisite: Digital Literacy. Lecture/Lab: 3.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

VCC 230(3) Course ID:004462
Instructor Consent Required
Advanced InDesign
Provides advanced skills in page design and layout using Adobe InDesign software. Design and creation of 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 235(3) Course ID:016770
Graph Design I
Explores the use of elements and principles of design in the creative ideation process. Uses the creative brief process to research, design, and create corporate identities, packaging, promotional items, and advertising campaigns. Introduces basic concepts, theories, terminology, and design of corporate logos, packaging, and advertising. Introduces legal requirements within the industry. Students must receive a final grade of “C” or better to advance in all Visual Communication courses. Pre-requisite: VCC 110 & VCC 215. Lecture/Lab: 3.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

VCC 245(3) Course ID:016771
Graphic Design II
Explores advanced techniques in the creative ideation process to design professional corporate identities, packaging, promotional items, and advertising campaigns. Emphasizes the use of graphics standards for corporate branding. Defines specifications for the design of packaging and product labels. Students must receive a final grade of “C” or better to advance in all Visual Communication courses. Pre-requisite: VCC 235. Lecture/Lab: 3.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

VCC 255(3) Course ID:016772
Emerging Media Design
Explores fundamental principles of design, function, and usability of new media technology, including games, mobile applications, web-based media and other digital media platforms. Students must receive a final grade of “C” or better to advance in all Visual Communication courses. Pre-requisite: VCC 110 & VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

VCC 260(3) Course ID:001509
Instructor Consent Required
Computer Graphics II
Provides advanced skills in computer graphics using Adobe InDesign, Photoshop, and Illustrator. Creation of a variety of complex and multi-page documents will be the focus of this course. Students will also gain knowledge working with PDF files, color separations, preflighting and imposition for printing. Students must receive a final grade of “C” or better to advance in all Visual Communication courses. Pre-requisite: VCC 110 & VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

VCC 266(3) Course ID:005142
Advanced Photoshop
Develops advanced skills to digitally manipulate, enhance, and create composite photographs. Applies advanced principles, concepts, and techniques for graphic design and digital photography. Creation and manipulation of graphics for complex images and designs will be the focus of this course. Students must receive a letter grade of “C” or better. Pre-requisite: VCC 166. Lecture/Lab: 3.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical
**VCC 270(3) Course ID:005798**

**Acrobat Basics**
Provides students with the basic skills using Adobe Acrobat to produce and utilize PDF documents. Students must receive a letter grade of "C" or better. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

**VCC 297(3) Course ID:004469**

**Instructor Consent Required**
Internship
Provides supervised on-the-job work experience related to the students educational objectives. Students participating in Internships do not receive compensation for their work. Co-op: Internship: 3 credits (180 contact hours). Pre-requisite: Permission of Instructor.

Components: Co-op Attributes: Technical

**VCC 298(3) Course ID:004463**

**Instructor Consent Required**
Practicum
Provides supervised on-the-job work experience related to the student’s educational objectives. Students participating in the Practicum do not receive compensation. Practicum/ Internship: 3 credits (180 contact hours). Pre-requisite: Permission of Instructor.

Components: Practicum Attributes: Technical

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**VCM 110(3) Course ID:004453**

**Visual Communications Multimedia**

**Fundamentals of Animation**
Explores the fundamentals of 2-D animation through history, theory and practical application. Covers the basics of animation, including: character design and development, character environment, and storyboarding. Students must receive a letter grade of "C" or better. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

**VCM 115(3) Course ID:004452**

**2-D Animation**
Introduces basic computer animation using industry standard software. Uses software to create 2-D animations for various multi-media functions. Students must receive a letter grade of "C" or better. Lecture: 1.0 credit (15 contact hours); Laboratory: 2.0 credits (75 contact hours).

Components: Lecture Attributes: Technical

**VCM 125(3) Course ID:015851**

**Foundations of Video Production**
Introduces students to the basics of video production and animation. Includes screenwriting, storyboards, and planning a video production and animation project. Familiarizes students with video, lighting, and sound equipment. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

**VCM 140(3) Course ID:001762**

**Digital Video**
Presents techniques for digital audio and video acquisition, equipment, and editing software. Emphasizes on planning and creating storyboards for digital video projects from conception to final product. Students must receive a letter grade of "C" or better. Lecture/Lab: 3.0 credits (90 contact hours).

Components: Lecture Attributes: Technical

**VCM 210(3) Course ID:004344**

**3-D Animation**
Introduces the principles of animation. Uses commercial 3-D animation packages and storyboards to produce 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 230(3) Course ID:004345**

**Advanced Webpage Design**
Introduces aesthetic, navigational, accessibility, usability, and interactivity issues for web designers. Pre-requisite: VCM 220 with a grade of C or better or Consent of Instructor. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (75 contact hours).

Components: Lecture Attributes: Technical

**VCM 240(3) Course ID:004456**

**Advanced Digital Video**
Emphasizes planning and creation of digital video projects through a non-linear editing environment. Focuses on the uses and control of dress, measurements and equipment. Students must receive a letter grade of "C" or better. Pre-requisite Or Co-requisite: VCM 140. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (75 contact hours/37.5:1 ratio).

Components: Laboratory, Lecture Attributes: Technical

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**VCP 250(3) Course ID:006795**

**Screen Printing**
Includes how to identify and perform the proper methods of the operations of a screen printing process, including registration, placement, screen preparations, artwork preparations, and 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 and VCC 166. Lecture/Lab: 3.0 credits (90 contact hours/45:1 ratio).

Components: Lecture Attributes: Technical

**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.

Components: Laboratory Attributes: Technical

**VCP 285(3) Course ID:004536**

**Instructor Consent Required Electronic Prepress**
This is a capstone course designed to address the needs in the areas of multiple applications of A Digital Production Artist in Visual Communication. Pre-requisite: Permission of Instructor. Laboratory: 3 credits (90 contact hours/30:1 ratio).

Components: Laboratory Attributes: Technical

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**VET Veterinary Technology**

**VET 110(5) Course ID:007425**

**Introduction to Veterinary Technology**
Introduces students to veterinary medicine and technology through the lecture component covering hospital operation, professional standards, and ethics. Introduces the study of breeds and strains of domesticated animals and the basic concepts of animal behavior. Studies the nature and form of medicines and 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; BI 113. Lecture/Lab: 5.0 credits (135 contact hours).

Components: Lecture Attributes: Technical

**VET 112(4) Course ID:007426**

**Veterinary Microbiology**
Examines the characteristics of microorganisms and their relationships to animal health and diseases. Introduces fundamental microbiological principles and laboratory techniques. Pre-requisite: BIO 112, BIO 113, and VET 110. Lecture/Lab: 4.0 credits (90 contact hours).

Components: Lecture Attributes: Technical

**VET 114(5) Course ID:007427**

**Animal Anatomy and Physiology**
Provides a functional integration of basic science and clinical information as it relates to animals in an integrated lecture and laboratory approach employing the organ system approach, using domestic and laboratory animals as models to discuss anatomy and physiology. Utilizes selected animal specimens, fresh and preserved, as well as skeletons and models, in the laboratory to reinforce course concepts. Pre-requisite: VET 110. Co-requisite: VET 112. Lecture/Lab: 5.0 credits (135 contact hours).

Components: Lecture Attributes: Technical

**VET 120(2) Course ID:007428**

**Clinical Practicum I**
Provides practical experience in veterinary clinics and/or related facilities; students complete an average of approximately 12 hours of clinical practicum per week. Pre-requisite: VET 110, 112, and 114. Co-requisite: VET 130. Clinical: 2.0 credits (96 contact hours).

Components: Clinical Attributes: Technical

**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 anesthesiomaachine and nursing procedures during the surgical process. Introduces radiographic procedures and coevsional 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).

Components: Lecture Attributes: Technical

**VET 210(3) Course ID:007430**

**Pharmacology**
Introduces the major drug classifications, covers the use and control of drugs, measurements and 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 credits (45 contact hours).

**Components**: Lecture

**Attributes**: Technical

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**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).

**Components**: Lecture

**Attributes**: Technical

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**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 210 and VET 130. Co-requisite: VET 210 and VET 220. Lecture/Lab: 5.0 credits (135 contact hours).

**Components**: Lecture

**Attributes**: Technical

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**VET 240(5)**
**Course ID:007433**

**Veterinary Lab Procedures III**

Emphasizes lab animal care, advanced radiographic techniques, ultrasound, and clinical pathology, this course sees 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).

**Components**: Lecture

**Attributes**: Technical

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**VET 250(5)**
**Course ID:007434**

**Clinical Practicum II**

Provides practical experience in veterinary hospitals, clinics, and related facilities; students complete an average of 16 hours per week. Pre-requisite: VET 210, VET 220, and VET 230. Co-requisite: VET 240 Clinical: 5.0 credits (240 contact hours).

**Components**: Clinical

**Attributes**: Technical

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**VMX Volume Medical Imaging**

**VMX 200(4)**
**Course ID:005199**

**Sectional Anatomy & Pathology I**

The anatomy of the human body will be examined through cross-sectional images from cadavers and CT/MR images. Emphasis will be placed on identifying anatomical landmarks and describing relative anatomical location with appropriate medical terminology. Topics will include: head, neck, spine, thorax, abdomen, pelvis, and upper and lower extremities. Some pathology will be introduced. Lecture: 3 credits (45 contact hours); Laboratory: 3 credits (30 contact hours). Pre-requisite: BIO 137 and BIO 139.

**Components**: Laboratory, Lecture

**Attributes**: Technical

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**VMX 210(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 vs. pathologic tissue. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (30 contact hours). Pre-requisite: VMX 200.

**Components**: Laboratory, Lecture

**Attributes**: Technical

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**VMI 210(4)**
**Course ID:005201**

**Volumetric Medical Imaging I**

Software-based systems designed to introduce radiological computer post-processing. Mastery of basic function-eseenable 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. Lecture/Lab: 5.0 credits (153 contact hours).

**Components**: Lecture, Laboratory

**Attributes**: Technical

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**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. Lecture/Lab: 5.0 credits (153 contact hours).

**Components**: Lecture, Laboratory

**Attributes**: Technical

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**WGS 200(3)**
**Course ID:000815**

**Introduction to Women's and Gender Studies in the Social Sciences**

Introduces women’s and gender studies from a social science perspective, using a cross-cultural and interdisciplinary approach. Emphasizes social science explanations for sex-typed behavior, social perceptions of women and men, and the roles of women in social and cultural life. Lecture: 3 credits (45 contact hours).

**Components**: Lecture

**Attributes**: Cultural Studies, SB - Social Behavior Science

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**WGS 201(3)**
**Course ID:000921**

**Introduction to Women's and Gender Studies in the Arts and Humanities**

Introduces women’s and gender studies from a humanities perspective, using a cross-cultural and interdisciplinary approach including art and literature. Examines issues and problems of women in contemporary society through the lens of race, gender, class, and socio-political spheres. Lecture: 3 credits (45 contact hours).

**Components**: Lecture

**Attributes**: Cultural Studies, AB - Arts and Humanities

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**WLD Welding**

**WLD 100(2)**
**Course ID:004575**

**Oxy-Fuel Systems**

A working knowledge of oxy-fuel identification, set-up, inspection, and maintenance; consumable identification, selection and care; principles of operation; and effects of variables for manual and mechanized oxy-fuel cutting, welding, brazing principles and practices, and metallurgy. Shop safety and equipment use are also covered. Lecture: 2 credits (30 contact hours). Co-requisite: WLD 101 or Consent of Instructor.

**Components**: Lecture

**Attributes**: Technical

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**WLD 101(2)**
**Course ID:004576**

**Oxy-Fuel Systems Lab**

Manipulative skills necessary to weld and cut plate and pipe in all positions, as well as brazing, braze-welding, and gouging. Lab: 2 credits (60 contact hours/30:1 ratio) Co-requisite: WLD 100 or Consent of Instructor.

**Components**: Laboratory

**Attributes**: Technical

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**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 repair, repair and prevention of discontinuities of cut surfaces.

Includes oxy-fuel cutting, plasma arc cutting, exothermic cutting, air carbon arc cutting, shielded metal arc cutting, and mechanical cutting processes. Lecture: 2 credits (30 contact hours). Co-requisite: WLD 111 or Consent of Instructor.

**Components**: Lecture

**Attributes**: Technical

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**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 metalcutting 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 cutsurface discontinuities. Processes will include, but not limited to: OFC, PAG, 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

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**WLD 120(2)**
**Course ID:004600**

**Shielded Metal Arc Welding**

Teaches the student, identification, inspection, and maintenance of SMAW electrodes; principles of SMAW; the effects of variables on the SMAW process to weld plate and pipe; and metallurgy. Lecture: 2 credits (60 contact hours). Co-requisite: WLD 121 or Consent of Instructor.

**Components**: Lecture

**Attributes**: Technical

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**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 weld in all positions. Lab: 3 credits (90 contact hours/30:1 ratio). Co-requisite: WLD 120 or Consent of Instructor.

**Components**: Laboratory

**Attributes**: Technical

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**WLD 123(3)**
**Course ID:004599**

**Shielded Metal Arc Welding Groove with Backing Lab**

Provides experiences in which students acquire the manipulative skills to do groove welds in all positions with backing. Lab: 3 credits (90 contact hours/30:1 ratio). Pre-requisite: WLD 120 and 121 or Consent of Instructor.

**Components**: Laboratory

**Attributes**: Technical

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**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

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**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 onplate 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

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**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 groovedwelds 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 saftey practices 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. Prerequisite: 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 bothplate and pipe. Short Circuiting and Spray transfers are used where appropriate. Pre-requisite: WLD 140 or Consent of Instructor. Laboratory: 1 credit (30 contact hours/30:1 ratio).
Components: Laboratory
Attributes: Technical

WLD 147(1) Course ID:004585
Flux Cored Arc Welding Lab
Acquaints the student with the method of operation and application of the flux cored welding system. Pre-requisite: WLD 140 or Consent of Instructor. Laboratory: 1 credit (30 contact hours/30:1 ratio).
Components: Laboratory
Attributes: Technical

WLD 151(2) Course ID:004603
Basic Welding A
Introduction to welding, cutting processes, and related equipment. Basic setup, operation, and related safety are applied. Lecture: 1 credit (15 contact hours). Laboratory: 1 credit (30 contact hours/30:1 ratio).
Components: Laboratory, Lecture
Attributes: Technical

WLD 152(5) Course ID:004441
Basic Welding B
An introduction to common cutting and welding processes used in industry. Theory, setup, operation, and related safety are applied. Lecture: 2 credits (30 contact hours). Laboratory: 3 credits (90 contact hours/30:1 ratio).
Components: Laboratory, Lecture
Attributes: Technical

WLD 161(1) Course ID:004602
Submerged Arc Welding Lab
Designed to provide the student with a working knowledge of SAW set-up, maintenance, and consumable identification. Includes practice in basic SAW principles and techniques related to the field of study. 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. Analyzed 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 dimenioning and tolerancing and use of reference materials and books are included. Occupational specifics including welding drawings, symbols, joint types, grooves, pipe welding symbols, testing symbols and specification interpretations are stressed. Lecture: 2 credits (30 contact hours). Co-requisite: WLD 171 or Consent of Instructor.
Components: Lecture
Attributes: Technical

WLD 171(3) Course ID:004588
Blueprint Reading for Welding Lab
Provides students with an understanding of the fabrication process through computer modeling systems and creation of prints or through practice fabricating from a blueprint. Allows students to read and fabricate from detail prints, control distortion during fabrication, and follow proper welding sequence. Provides the oppotunity generate detailed prints, create digital files, and generate work detailing the proper welding sequences. Utilizes welding symbols and study weld sizes and strengths. Lab: 3 credits (90 contact hours/30:1 ratio). Co-requisite: WLD 170 or Consent of Instructor.
Components: Laboratory
Attributes: Technical

WLD 179(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: Varies. Laboratory: Varies. Pre-requisite: Consent of instructor.
Components: Lecture
Attributes: Technical

WLD 220(2) Course ID:004589
Welding Certification
Provides the student with a working knowledge of welding certification encountered in welding. The student will start with developing a WPS, qualify the WPS, and qualify personnel. Documents used in welding certification are developed and used. Co-requisite: WLD 221 or Consent of Instructor. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical

WLD 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 theoretical 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. Filletwelds on pipe joints are also included in 2F, 2FF, 4F, and 5F positions. Lab: 3 credits (90 contact hours/30:1 ratio). Pre-requisite: WLD 225 or Consent of Instructor.
Components: Laboratory
Attributes: Technical

WLD 229(3) Course ID:004593
Shielded Metal Arc Welding Pipe Lab B
Teaches the required manipulative skills to arc weld pipe using mild steel electrodes in the 6G position including proper pipe preparations, electrodes, safety precautions, and welding sequences. Lab: 3 credits (90 contact hours/30:1 ratio). Pre-requisite: WLD 225 or Consent of Instructor.
Components: Laboratory
Attributes: Technical

WLD 233(3) Course ID:004594
Gas Tungsten Arc Welding Pipe Lab A
Teaches the method of operation and application of the gas tungsten arc welding system for welding of bothferrous and non-ferrous pipe in 2G and 5G positions. Lab: 3 credits (90 contact hours/30:1 ratio). Pre-requisite: WLD 133 or Consent of Instructor.
Components: Laboratory
Attributes: Technical

WLD 237(3) Course ID:004595
Gas Tungsten Arc Welding Pipe Lab B
Teaches the method of operation and application of the gas tungsten arc welding process for welding of bothferrous 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 metalurgy to welding including preheat, interpass temperature, and post-weld heat treatment and their effects on welding and welding's effect on them. Lecture: 2 credits (30 contact hours)
Components: Lecture
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). Pre-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 credit (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 160(2) Course ID:002179
Wood Finishing
This course is an overview of contemporary spray finishing materials and processes for millwork assemblies. Each student will learn to set-up and troubleshoot a variety of common finishing systems while experimenting with finishing materials and supplies.
Components: Lecture
Attributes: Technical

WMT 198(2 - 4) Course ID:002179
Instructor Consent Required Practicum
The practicum provides supervised work experience related to the student’s educational objective. Students participating in the practicum do not receive compensation. The course may be taken for 2 - 4 credits.
Pre-requisite: Permission of the Instructor.
Components: Practicum
Attributes: Technical

WMT 199(2) Course ID:002180
Instructor Consent Required Cooperative Education
Co-op provides supervised work experience related to the student’s educational objectives. Students participating in the cooperative education program receive compensation for their work. Pre-requisite: Permission of the Instructor.
Components: Co-op

WMT 230(2) Course ID:002184
Introduction to Panel Processing
An overview of the terminology, materials, processing equipment and related software utilized by panel processing manufacturers of residential and commercial case work. Emphasis will be placed on the design and fabrication of frameless cabinetry to the use of panel saws, edgebanders, CNC boring equipment and casework.
Components: Lecture
Attributes: Technical

WMT 240(4) Course ID:002185
Cabinet Making Technology
This course is an overview of the cabinet and store fixtures industries. Emphasis will be placed on the design and construction of a cabinet as well as frameless (32mm) systems. Each student will plan and build a vanity, kitchen cabinet or store fixture which utilizes contemporary casework technologies. Pre-requisite: WMT 110 and WMT 120. Lecture: 4 credits (120 contact hours).
Components: Lecture

WMT 250(4) Course ID:002186
Furniture Technology
Furniture design principles, structural considerations, joinery, fasteners, veneering, and use of specialized machines for complex operations are the focus of this course. Each student will plan and build a piece of furniture that includes at least one drawer, a door and some veneering. Pre-requisite: WMT 110 and WMT 120. Lecture: 4 credits (120 contact hours).
Components: Lecture

WMT 260(4) Course ID:002187
Millwork Technology
Design of moulding, doors, and door frames; windows; stairs; and mantels are the focus of this course. Emphasis will be placed on construction principles, joinery, and fasteners for millwork assemblies. Each student will build one or more millwork items. Pre-requisite: WMT 110 and WMT 120. Lecture: 4 credits (120 contact hours).
Components: Lecture
Attributes: Technical

WMT 270(2) Course ID:002188
Moulder/Grinder Operation
This course is an introduction to the setup, operation, and maintenance of moulding and grinding equipment. The student will use tools, measuring devices and visual inspection techniques to ensure quality to customer specifications. Students will set up and operate a moulder or planer, shape and grove 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.
Components: Lecture
Attributes: Technical

WMT 280(2) Course ID:002189
Instructor Consent Required Estimating
This course is an introduction to estimating costs and materials for wood products. Special emphasis will be placed on projecting material and labor costs for custom wood products as well as mass produced items.
Pre-requisite: Permission of the Instructor.
Components: Lecture

WMT 290(4) Course ID:002190
Instructor Consent Required Advanced Wood Processing
This course is a capstone experience for advanced wood processing technicians involving the integration of computer-aided design and world-class manufacturing of wood products. Pre-requisite: Permission of the Instructor.
Components: Lecture

WPP 200(3) Course ID:002193
Workplace Principles
Workplace Principles examines the changing workplace and the skills needed to adapt to constantly changing demands and expectations. The course includes but is not limited to problem solving, teamwork, timemanagement, 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

ZOO 293(3 - 6) Course ID:005347
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 13B, 164.020, 164.030, 164A.330(6)
STATUTORY AUTHORITY: KRS 164.020(b)
NECESSITY, FUNCTION, AND CONFORMITY: KRS 164.020(b) 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."; or
   (d) Professional degree in law, medicine, dentistry, or "Pharm. D."
(4) "Dependent person" means a person who cannot demonstrate financial independence from parents or persons other than a spouse and who does not meet the criteria for independence established in Section 5 of this administrative regulation.
(5) "Determination of residency status" means the decision of a postsecondary education institution that may include a formal hearing that results in the classification of a person as a Kentucky resident or as a nonresident for purposes of tuition assessment.
(6) "Domicile" means a person’s true, fixed, and permanent home and is the place where the person intends to remain indefinitely, and to which the person expects to return if absent without intending to establish a new domicile elsewhere.
(7) "Full-time employment" means continuous employment for at least forty-eight (48) weeks at an average of at least thirty (30) hours per week.
(8) "Independent person" means a person who demonstrates financial independence from parents or persons other than a spouse and who meets the criteria for independence established in Section 5 of this administrative regulation.
(9) "Institution" means an entity defined by KRS 164.001(12) if the type of institution is not expressly stated and includes the Kentucky Virtual University, the Council on Postsecondary Education, and the Kentucky Higher Education Assistance Authority.
(10) "Kentucky resident" means a person determined by an institution for tuition purpose to be domiciled in and a resident of Kentucky as determined by this administrative regulation.
(11) "Nonresident" means a person who:
   (a) Is domiciled outside by Kentucky;
   (b) Currently maintains legal residence outside Kentucky; or
   (c) Is not a Kentucky resident as determined by this administrative regulation.
(12) "Parent" means one (1) of the following:
   (a) A person’s father or mother; or
   (b) A court-appointed legal guardian if:
       1. The guardianship is recognized by an appropriate court within the United States;
       2. There was a relinquishment of the rights of the parents; and
       3. The guardianship was not established primarily to confer Kentucky residency on the person.
(13) "Preponderance of the evidence" means the greater weight of evidence or evidence that is more credible and convincing to the mind.
(14) "Residence" means the place of abode of a person and the place where the person is physically present most of the time for a noneducational purpose in accordance with Section 3 of this administrative regulation.
(15) "Student financial aid" means all forms of payments to a student if one condition of receiving the payment is the enrollment of the student at an institution, and includes student employment by the institution or a graduate assistantship.
(16) "Sustenance" means living expenses including room, board, maintenance, transportation, and educational expenses including tuition, fees, books, and supplies.

Section 2 Scope

(1) State-supported postsecondary education institutions were established and are maintained by the Commonwealth of Kentucky primarily for the benefit of qualified residents of Kentucky. The substantial commitment of public resources to postsecondary education is predicated on the proposition that the state benefits significantly from the existence of an educated citizenry. As a matter of policy, access to postsecondary education shall be provided so far as feasible at reasonable cost to a qualified individual who is domiciled in Kentucky and who is a resident of Kentucky.
(2) The Council on Postsecondary Education may require a student who is neither domiciled in nor a resident of Kentucky to meet higher admission standards and to pay a higher level of tuition than resident students.
(3) This administrative regulation shall apply to all student residency determinations regardless of circumstances, including residency determinations made by the state-supported institutions for prospective and currently-enrolled students; the Southern Regional Education Board for contract spaces; reciprocity agreements, if appropriate; the Kentucky Virtual University; academic common market programs; the Kentucky Educational Excellence Scholarship Program; and other state student financial aid programs, as appropriate.

Section 3 Determination of Residency Status; General Rules

(1) A determination of residency shall include:
   (a) An initial determination of residency status by an institution during the admission process or upon enrollment in an institution for a specific academic term or for admission into a specific academic program;
   (b) A reconsideration of a determination of residency status by an institution based upon a changed circumstance; or
   (c) A formal hearing conducted by an institution upon request of a student after other administrative procedures have been completed.
(2) An initial determination of residency status shall be based upon:
   (a) The facts in existence when the credentials established by an institution for admission for a specific academic term have been received and during the period of review by the institution;
   (b) Information derived from admissions materials;
   (c) If applicable, other materials required by an institution and consistent with this administrative regulation; and
   (d) Other information available to the institution from any source.
(3) An individual seeking a determination of Kentucky residency status shall demonstrate that status by a preponderance of the evidence.
(4) A determination of residency status shall be based upon verifiable circumstances or actions.
(5) Evidence and information cited as the basis for Kentucky domicile and residency shall accompany the application for a determination of residency status.
(6) A student classified as a nonresident shall retain that status until the student is officially reclassified by an institution.
(7) A student may apply for a review of a determination of residency status once for each academic term.
(8) If an institution has information that a student’s residency status may be incorrect, the institution shall review and determine the student’s correct residency status.
(9) If the Council on Postsecondary Education has information that an institution’s determination of residency status for a student may be incorrect, it may require the institution to review the circumstances and report the results of that review.
(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; or
(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 has financial earnings and resources independent of a person other than an independent spouse necessary to provide for the person’s own sustenance.

(3) An individual who enrolls at an institution immediately following graduation from high school and remains enrolled shall be presumed to be a dependent person unless the contrary is evident from the information submitted.

(4) Domicile may be inferred from the student’s permanent address, parent’s mailing address, or location of high school of graduation.

(5) Marriage to an independent person domiciled in and is a resident of Kentucky shall be a factor considered by an institution in determining whether a student is dependent or as an exemption for federal and state tax purposes; and

(6) Financial assistance from or a loan made by a parent or family member other than an independent spouse, if used for sustenance of the student:
(a) Shall not be considered in establishing a student as independent; and
(b) Shall be a factor in establishing that a student is dependent.

Section 6 Effect of a Determination of Dependent Status on a Determination of Residency Status
(1) The effect of a determination that a person is dependent shall be:
(a) The domicile and residency of a dependent person shall be the same as either parent. The domicile and residency of the parent shall be determined in the same manner as the domicile and residency of an independent person; and
(b) The domicile and residency of a dependent person whose parents are divorced, separated, or otherwise living apart shall be Kentucky if either parent is domiciled in and is a resident of Kentucky regardless of which parent has legal custody or is entitled to claim that person as a dependent pursuant to federal or Kentucky income tax provisions.

(2) If the parent or parents of a dependent person are Kentucky residents and are domiciled in Kentucky but subsequently move from the state:
(a) The dependent person shall be considered a resident of Kentucky while in continuous enrollment at the degree level in which currently enrolled; and
(b) The dependent person’s residency status shall be reassessed if continuous enrollment is broken or the current degree level is completed.

Section 7 Member of Armed Forces of the United States, Spouse and Dependents; Effect on a Determination of Residency Status
(1) A member, spouse, or dependent of a member whose domicile and residency was Kentucky at the time of induction into the Armed Forces of the United States, and who maintains Kentucky as home of record and permanent address, shall be entitled to Kentucky residency status:
(a) During the member’s time of active service; or
(b) If the member returns to this state within six (6) months of the date of the member’s discharge from active duty.

(2) A member of the armed services on active duty for more than thirty (30) days and who has a permanent duty station in Kentucky shall be classified as a Kentucky resident and shall be entitled to in-state tuition as shall the spouse or a dependent child of the member.

(a) A member, spouse, or dependent of a member shall not lose Kentucky residency status if the member is transferred on military orders while the member, spouse, or dependent requesting the status is in continuous enrollment at the degree level in which currently enrolled.
(b) 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.

(c) A person’s residency status established pursuant to this section shall be reassessed if the qualifying condition is terminated.

Section 8 Status of Nonresident Aliens; Visas and Immigration
(1) A person holding a permanent residency visa or classified as a political refugee shall establish domicile and residency in the same manner as another person.

(a) Time spent in Kentucky and progress made in fulfilling the conditions of domicile and residency prior to obtaining permanent residency status shall be considered in establishing Kentucky domicile and residency.

(b) 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.

(c) A person holding a nonimmigrant visa with designation B, C, D, E, 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, T-D, 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.

(d) A dependent person holding a visa as described in paragraphs (a) and (b) 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.

(e) 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.

(f) A person shall be a Kentucky resident for the purpose of this administrative regulation if the person graduated from a Kentucky high school and:
(a) Is an undocumented alien;
(b) Holds a visa listed in subsections (2) or (3)(a) of this section; or
(c) Is a dependent of a person who holds a visa listed in subsections (2) or (3)(a) of this section.

(5) Except as provided in paragraph (b) of this subsection, a person who has petitioned the federal government to reclassify visa status shall continue to be ineligible until the petition has been decided by the federal government.

(b) A person who has petitioned the federal government to reclassify his or her visa status based on marriage to a Kentucky resident and who can demonstrate that the petition has been filed and acknowledged by the federal government, may establish Kentucky domicile and residency at that time.

Section 9 Beneficiaries of a Kentucky Educational Savings Plan Trust
A beneficiary of a Kentucky Educational Savings Plan Trust shall be granted residency status if the beneficiary meets the requirements of KRS 164A.330(6).
Appendix

Section 10 Criteria Used in a Determination of Residency Status

(1) (a) A determination of Kentucky domicile and residency shall be based upon verifiable circumstances or actions.

(1) (b) A single fact shall not be paramount, and each situation shall be evaluated to identify those factors essential to the determination of domicile and residency.

(1) (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.

(1) (d) Mere physical presence in Kentucky, including living with a relative or friend, shall not be sufficient evidence of domicile and residency.

(1) (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 weighed, 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 determining 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 noncollegiate housing; and

(e) Continued presence in Kentucky during academic breaks.

(4) The absence of a fact contained in subsection (3) of this section shall have significant probative value in determining that a student is not domiciled in or is not a resident of Kentucky.

Section 11 Effect of a Change in Circumstances on Residency Status

(1) If a person becomes independent or if the residency status of a parent or parents of a dependent person changes, an institution shall reassess residency either upon a request by the student or a review initiated by the institution.

(2) Upon transfer to a Kentucky institution, a student’s residency status shall be assessed by the receiving institution.

(3) A reconsideration of a determination of residency status for a dependent person shall be subject to the provisions for continuous enrollment, if applicable.

Section 12 Student Responsibilities

(1) A student shall report under the proper residency classification, which includes the following actions:

(a) Raising a question concerning residency classification;

(b) Making application for change of residency classification with the designated office or person at the institution; and

(c) Notifying the designated office or person at the institution immediately upon a change in residency.

(2) If a student fails to notify an institutional official of a change in residency, an institutional official may investigate and evaluate the student’s residency status.

(3) (a) If a student fails to provide, by the date specified by the institution, information required by an institution in a determination of residency status, the student shall be notified by the institution that the review has been canceled and that a determination has been made.

(b) Notification shall be made by registered mail, return receipt requested.

(c) Notification shall be made within ten (10) calendar days after the deadline for receipt of materials has passed.

(4) (a) The formal hearing conducted by an institution and the final recommended order shall be a final administrative action with no appeal to the Council on Postsecondary Education.

(b) A formal administrative hearing conducted by the Council on Postsecondary Education for residency determinations related to eligibility for the Academic Common Market and Regional Contract Programs shall be conducted pursuant to the provisions of KRS Chapter 13B and 13 KAR 2:070. The recommended order issued by the President of the Council shall be a final administrative action.

(5) A student shall not be entitled to appeal a determination of residency status if the determination made by an institution is because a student has failed to meet published deadlines for the submission of information as set forth in subsection (3) of this section. A student may request a review of a determination of residency status in a subsequent academic term.

Section 13 Institutional Responsibilities Each institution shall:

(1) Provide for an administrative appeals process that includes a residency appeals officer to consider student appeals of an initial residency determination and which shall include a provision of fourteen (14) days for the student to appeal the residency appeals officer’s determination.

(2) Establish a residency review committee to consider appeals of residency determinations by the residency appeals officer. The residency review committee shall make a determination of student residency status and notify the student in writing within forty-five (45) days after receipt of the student appeal.

(3) Establish a formal hearing process as described in Section 14 of this administrative regulation; and

(4) Establish written policies and procedures for administering the responsibilities established in subsections (1), (2), and (3) of this section and that are:

(a) Approved by the institution’s governing board;

(b) Made available to all students; and

(c) Filed with the council.

Section 14 Formal Institutional Hearing

(1) A student who appeals a determination of residency by a residency review committee shall be granted a formal hearing by an institution if the request is made by a student in writing within fourteen (14) calendar days after notification of a determination by a residency review committee.

(2) If a request for a formal hearing is received, an institution shall appoint a hearing officer to conduct a formal hearing. The hearing officer shall:

(a) Be a person not involved in determinations of residency at an institution except for formal hearings; and

(b) Not be an employee in the same organizational unit as the residency appeals officer.

(3) An institution shall have written procedures for the conduct of a formal hearing that have been adopted by the board of trustees or regents, as appropriate, and that provide for:

(a) A hearing officer to make a recommendation on a residency appeal;

(b) Guarantees of due process to a student that include:

1. The right of a student to be represented by legal counsel; and

2. The right of a student to present information and to present testimony and information in support of a claim of residency in Kentucky; and

(c) A recommendation to be issued by the hearing officer.

(4) An institution’s formal hearing procedures shall be filed with the Council on Postsecondary Education and shall be available to a student requesting a formal hearing.

Section 15 Cost of Formal Hearings

(1) An institution shall pay the cost for all residency determinations including the cost of a formal hearing.

(2) A student shall pay for the cost of all legal representation in support of the student’s claim of residency.

(17 Ky.R. 2557; eff. 4-5-1991; Am. 22 Ky.R. 1656; 1988; eff. 5-16-1996; 23 Ky.R. 3380; 3797; 4099, eff. 6-1997; 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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<th>New Courses</th>
<th>Old Courses</th>
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<td>MA 109 Analytical Geometry and Trigonometry</td>
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<td>MAT 159 Analytical Geometry and Trigonometry</td>
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<td>Dropped MA 111 Contemporary Mathematics</td>
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<td>Dropped MA 162 Finite Mathematics and its Applications</td>
<td>MA 193 Supplementary Mathematics Workshop I (Topic)</td>
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<td>Dropped MA 194 Supplementary Mathematics Workshop II (Topic)</td>
<td>MA 201 Mathematics for Elementary Teachers</td>
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<td>Dropped MA 202 Mathematical Problem Solving for Elementary Teachers</td>
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### Historical Mathematics Course Transitions

Below is a table clarifying the math course transition that took place Fall 2004. Courses with the MT prefix that are below the 100-level are transitional courses. MT courses between 100 and 139 are specifically designed for occupational/technical programs. Courses numbered 140 and above are designed as transfer courses.

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<td>MAH 083, MA 108, MTH 160,</td>
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<td>MT 122 Intermediate Algebra: A Functional Approach</td>
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<td>MAH 080</td>
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<td>MT 125 Technical Algebra &amp; Trigonometry</td>
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<td>MTH 170, MTH 175, MTH 101</td>
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<td>MT 139 AAS Mathematics Application: (Topic)</td>
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<td>MT 145 Contemporary College Mathematics</td>
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<td>MT 120 or MT 122</td>
<td>MT 107</td>
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<tr>
<td>MT 150 College Algebra</td>
<td>3</td>
<td>MT 120 or MT 122 or MT 125</td>
<td>MT 109</td>
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<td>MT 155 Trigonometry</td>
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<td>MT 120 or MT 122 or MT 125</td>
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<td>MT 190 Mathematics Workshop</td>
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### Mathematics Crosswalk of Courses for Purpose of Pre-requisites

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<td>MA 110 – Analytical Geometry and Trigonometry</td>
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<td>MA 162 – Finite Mathematics and Its Applications</td>
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<td>MT 170 – Brief Calculus with Applications</td>
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<td>MA 113 – Calculus I</td>
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<td>MA 214 – Calculus IV</td>
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### Appendix C

## Biology Crosswalk

This table includes changes made to Biology courses effective Fall 2010.

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<thead>
<tr>
<th>Course Type</th>
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<tbody>
<tr>
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<td>BIO 026</td>
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<td>Orientation to College Biology</td>
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<td><strong>General Education Biology Courses</strong></td>
<td>BIO 112</td>
<td>BIO 103</td>
<td>Basic Ideas of Biology</td>
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<td>BIO 113</td>
<td>BIO 111</td>
<td>Introduction to Biology Lab</td>
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<td>BIO 114</td>
<td>BSL 102</td>
<td>Biology I</td>
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<td>BIO 115</td>
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<td>BIO 116</td>
<td>BSL 103</td>
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<td>BIO 117</td>
<td>BSL 101</td>
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<td></td>
<td>BIO 118</td>
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<td>Microbes and Society</td>
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<td>BIO 220</td>
<td>BIO 204</td>
<td>The Genetic Perspective</td>
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<td>BSL 214</td>
<td>Medical Microbiology</td>
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<td>Dropped</td>
<td>BSL 244</td>
<td>Principles of Environmental Science</td>
<td></td>
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<td>Elementary Physiology</td>
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<td><strong>Ecology Courses</strong></td>
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<td>BIO 102</td>
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<td>BIO 121</td>
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<td>Introduction to Ecology Laboratory</td>
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<td>BIO 122</td>
<td>BSL 116</td>
<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>BSL 109</td>
<td>Aspects of Human Biology</td>
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<td>BIO 135</td>
<td>BSL 107</td>
<td>Basic Anatomy and Physiology w/ Lab</td>
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<td>BIO 137</td>
<td>BSL 110</td>
<td>Human Anatomy and Physiology I</td>
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<td>BIO 106/BSL 140</td>
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<td>BIO 141</td>
<td>BIO 106/BSL 140 and BIO 107</td>
<td>Botany with Laboratory</td>
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<td>BIO 142</td>
<td>BIO 104/BSL 160</td>
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<td>BIO 143</td>
<td>BIO 104/BSL 160 and BIO 105</td>
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<td><strong>Molecular and Microbiology Courses</strong></td>
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<td>BIO 204</td>
<td>The Genetic Perspective</td>
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<td>BSL 214</td>
<td>Medical Microbiology</td>
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<td>Elementary Physiology</td>
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<td>BIO 224</td>
<td>BSL 215</td>
<td>Introduction to Molecular and Cell Biology</td>
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<td>BIO 225</td>
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<td>Medical Microbiology w/ Lab</td>
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<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><strong>Selected/Special Topics</strong></td>
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<td>BSL 295</td>
<td>Independent Investigation in Biology</td>
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## Crosswalk for Chemistry Courses

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<td>CHE 115</td>
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<td>The Joy of Chemistry Laboratory*</td>
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<td>CHE 130</td>
<td>Introductory General and Biological Chemistry*</td>
<td>CHM 100</td>
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<td>CHE 140</td>
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<td>CHE 150</td>
<td>Introduction to Organic and Biological Chemistry*</td>
<td>CHE 106</td>
<td>Introduction to Inorganic, Organic, and Biochemistry</td>
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<td>Introduction to Organic and Biological Chemistry Laboratory*</td>
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<td>CHE 160</td>
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<td>CHE 170</td>
<td>General College Chemistry I*</td>
<td>CHE 105</td>
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<td>Analytical Chemistry*</td>
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<td>CHE 270</td>
<td>Organic Chemistry I*</td>
<td>CHE 230</td>
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<td>CHE 275</td>
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<tr>
<td>CHEM 175</td>
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*General Education Status
## Crosswalks compiled 2010-11 through 2013-14

**Agricultural Technology : 2011-2012**

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<td>AGR 170 Introduction to Equipment, Machines, and Engines</td>
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<td>AGR 220 Computers in the Agriculture Environment</td>
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<td>AGR 230 Career Development in Agriculture</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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<td>ART 104 Introduction to African Art</td>
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<td>ART 105 Ancient through Medieval Art History</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>
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<td>ART 113 3-Dimensional Design</td>
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<td>AH 210 Ancient Art History</td>
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<td>ART 202 Medieval Art</td>
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<td>ART 203 Renaissance Art</td>
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<td>ART 204 Modern Art</td>
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### Biotechnology: 2011-2012

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<td>BTN 110 Nucleic Acid Methods</td>
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<td>BTN 201 Biotechnology Techniques I</td>
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<td>BTN 202 Biotechnology Techniques II</td>
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<td>BTN 210 Cell Culture and Function</td>
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### Business Administration Systems: 2011-2012

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<td>BA 151 Introduction to Electronic Commerce</td>
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<td>BA 152 Introduction to Web Design</td>
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<td>BA 153 Intermediate Web Page Design</td>
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<td>BAS 155 Personal Selling</td>
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<td>BAS 160 Introduction to Business</td>
<td>BA 160 Introduction to Business</td>
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<td>BAS 170 Entrepreneurship</td>
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<td>BA 196 Introduction to Food Management Practicum</td>
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<td>BAS 200 Small Business Management</td>
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<td>BAS 212 Introduction to Financial Management</td>
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<td>BAS 250 Business Employability Seminar</td>
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<td>BAS 267</td>
<td>Introduction to Business Law</td>
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<td>BAS 274</td>
<td>Human Resources Management</td>
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<td>BAS 283</td>
<td>Principles of Management</td>
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<td>Problems in Marketing and Management</td>
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<td>Management, Ethics, and Society</td>
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<td>Operations Management</td>
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<td>Principles of Finance</td>
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<td>Money and Financial Institutions</td>
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<td>International Finance</td>
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<td>Introduction to Hospitality Management</td>
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<td>HOS 160</td>
<td>Security for the Hospitality Industry</td>
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<td>HOS 200</td>
<td>Cultural Heritage Tourism</td>
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<td>HOS 210</td>
<td>Front Office Operations</td>
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**Collision Repair Technology: 2011-2012**

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<td>Introduction to Collision Repair</td>
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<td>CRT 130</td>
<td>Non-Structural Analysis and Damage Repair</td>
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<td>Non-Structural Analysis and Damage Repair Lab</td>
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<tr>
<td>CRT 150</td>
<td>Painting and Refinishing</td>
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<td>CRT 151</td>
<td>Painting and Refinishing Lab</td>
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<td>CRT 198</td>
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<td>CRT 199</td>
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<td>CAD 108</td>
<td>Introduction to Surveying</td>
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<tr>
<td>CAD 112</td>
<td>Engineering Graphics</td>
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<td>CAD 120</td>
<td>Introduction to Architecture</td>
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<td>CAD 130</td>
<td>Descriptive Geometry</td>
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<td>CAD 201</td>
<td>Parametric Modeling</td>
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<td>CAD 212</td>
<td>Industrial Drafting Processes</td>
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<td>CAD 220</td>
<td>Architectural Design</td>
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<td>CAD 222</td>
<td>Mechanical Design</td>
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<td>CAD 230</td>
<td>Construction Techniques</td>
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<td>Advanced Dimensioning and Measurement</td>
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<td>Commercial Detailing</td>
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<td>CAD 262</td>
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### Old Courses

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<th>Course Code</th>
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<td>Drafting Fundamentals</td>
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<td>Introduction to Surveying</td>
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<td>DFT 112</td>
<td>Engineering Graphics</td>
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<td>DFT 130</td>
<td>Introduction to Architecture</td>
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<td>DFT 130</td>
<td>Descriptive Geometry</td>
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<td>Industrial Drafting Processes</td>
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<td>DFT 222</td>
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<td>Working Drawings</td>
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<td>Cooperative Education</td>
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### Computer Aided Drafting & Design: 2011-2012

- **Appendix**
- **391**
### Computer and Information Technologies: 2012-2013

(Previously listed under Computer Information Technology/Information Technology/Computer Information Systems Technology)

<table>
<thead>
<tr>
<th>New Courses</th>
<th>Courses that are equivalent to New Courses</th>
<th>Courses requiring program coordinator approval for substitution.</th>
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<tbody>
<tr>
<td>CIT 103</td>
<td>Computer Fundamentals</td>
<td>CIT 103</td>
</tr>
<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
<td>CIS 100/CIT 105</td>
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<tr>
<td>CIT 111</td>
<td>Computer Hardware and Software</td>
<td>IT 105 &amp; IT 205 / CIT 111</td>
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<td>CIT 120</td>
<td>Computational Thinking</td>
<td>CIS 120/CIT 120</td>
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<td>CIT 125</td>
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<td>CIT 130</td>
<td>Productivity Software</td>
<td>CIS 130/CIT 130</td>
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<tr>
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<td>NIS 152/CIT 140</td>
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<td>CIT 141</td>
<td>PHP I</td>
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<td>CIT 142</td>
<td>C++ I</td>
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<td>CIT 145</td>
<td>PERL I</td>
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<td>Java I</td>
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<td>CIT 157</td>
<td>Web Site Design and Production</td>
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<td>CIT 160</td>
<td>Introduction to Networking Concepts</td>
<td>NIS 160/CIS 210</td>
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<td>CIT 161</td>
<td>Network Fundamentals</td>
<td>IT 120/CIT 160</td>
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<td>CIT 162</td>
<td>Home and Small Office Networks</td>
<td>IT 121</td>
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<td>CIT 163</td>
<td>Small-Medium Business or ISP</td>
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<tr>
<td>CIT 164</td>
<td>Introduction to Routing and Switching</td>
<td>IT 223</td>
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<td>CIT 165</td>
<td>Network Design and Support</td>
<td>IT 225</td>
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<tr>
<td>CIT 170</td>
<td>Database Design Fundamentals</td>
<td>IT 170/ CIT 170/CIS 270</td>
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<tr>
<td>CIT 171</td>
<td>SQL I</td>
<td>IT 147/CIS 147/CIT 171</td>
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<tr>
<td>CIT 180</td>
<td>Security Fundamentals</td>
<td>IT 250/CIT 180</td>
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<td>CIT 182</td>
<td>Perimeter Defense</td>
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<td>CIT 184</td>
<td>Attacks and Exploits</td>
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<td>CIT 210</td>
<td>Routing Protocols and Concepts</td>
<td>IT 122</td>
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<td>CIT 211</td>
<td>LAN Switching and Wireless</td>
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New – Comparable to IT 160

New – Comparable to IT 141

New – Comparable to IT 132

New – Comparable to IT 254

New – Comparable to IT 252

New - Comparable to CIT 281
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<td>Accessing the WAN</td>
<td>IT 222/CIT 283</td>
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<td>CIT 213</td>
<td>MS Client/Server Config</td>
<td>CIT 213</td>
<td>New - Comparable to NIS 211 and NIS 213</td>
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<td>Infrastructure Admin</td>
<td>NIS 214</td>
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<td>CIT 217</td>
<td>UNIX/Linux Administration</td>
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<td>UNIX/Linux Net Infrastructure</td>
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<td>CIT 219</td>
<td>Internet Protocols</td>
<td>CIT 269</td>
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<td>Computer Graphics</td>
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<td>CIT 231</td>
<td>Help Desk Operations</td>
<td>IT 237</td>
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<td>Advanced Productivity Software</td>
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<td>Advanced Data Organization Software</td>
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<td>CIT 246</td>
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<td>CIT 248</td>
<td>Visual Basic II</td>
<td>CIS 248/CIT 248</td>
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<td>CIT 253</td>
<td>Data-Driven Web Pages: Topic</td>
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<td>CIT 255</td>
<td>Web Server Administration</td>
<td>NIS 275/CIT 255</td>
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<td>CIT 257</td>
<td>Applied Internet Technologies</td>
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<td>New – Comparable to IT 291 or IT 295</td>
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<td>CIT 260</td>
<td>Network Installation and Troubleshooting</td>
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<td>CIT 261</td>
<td>MS Active Directory Services</td>
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<td>CIT 262</td>
<td>MS Network Infrastructure</td>
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<td>CIT 264</td>
<td>Microsoft Server Administration</td>
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<td>Comparable to NIS 242 or NIS 244 or NIS 245</td>
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<td>CIT 265</td>
<td>MA Application Servers</td>
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<td>CIT 266</td>
<td>MS Enterprise Administration</td>
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<td>Comparable to NIS 242 or NIS 244 or NIS 245</td>
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<td>CIT 271</td>
<td>SQL II</td>
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<td>CIT 276</td>
<td>3-D Game Development: Language</td>
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<td>Programming III: Language</td>
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<td>Visual Basic III</td>
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<td>CMM 152 Jigs, Fixtures and Gaging</td>
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<td>CMM 155 Jigs, Fixtures and Gaging Lab</td>
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<td>CMM 168 Special Topics in Computerized Manufacturing &amp; Machining</td>
<td>MTT 168 Special Topics in Machine Tool Technology</td>
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### CMM 169 Special Topics in Computerized Manufacturing & Machining
### MTT 169 Special Topics in Machine Tool Technology
### CMM 210 Industrial Machining I
### MTT 210 Industrial Machining I
### CMM 212 Industrial Machining II
### MTT 212 Industrial Machining II
### CMM 214 Industrial Machining
### MTT 214 Industrial Machining
### CMM 218 Advanced Machining Techniques for Manufacturing
### MTT 218 Advanced Machining Techniques for Manufacturing
### CMM 220 Advanced Industrial Machining I
### MTT 220 Advanced Industrial Machining I
### CMM 220 Advanced Industrial Machining II
### MTT 222 Advanced Industrial Machining II
### CMM 224 Advanced Industrial Machining
### MTT 224 Advanced Industrial Machining
### CMM 230 Conversational Programming
### MTT 230 Conversational Programming
### CMM 234 CNC Machines & Coding Practices
### MTT 234 CNC Machines & Coding Practices
### CMM 240 Introduction to 3-D Programming
### MTT 240 Introduction to 3-D Programming
### CMM 244 Advance Programming/Setup Practices
### MTT 244 Advance Programming/Setup Practices
### CMM 298 Practicum
### MTT 298 Practicum
### CMM 299 Cooperative Education Program
### MTT 299 Cooperative Education Program

### Cosmetology: 2011-2012

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<td>COSE 110 Esthetician I</td>
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<td>COS 126 Cosmetology III</td>
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<td>COS 135 Individual Requirements I</td>
<td>COS 135 Special Problems I</td>
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<td>COS 205 Esthetician II</td>
<td>COSE 210 Esthetician II</td>
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<td>COS 232 Advanced Cosmetology II</td>
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<td>COS 235 Individual Requirements II</td>
<td>COS 235 Special Problems II</td>
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<td>COS 275 Esthetician III</td>
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### Criminal Justice: 2011-2012

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<td>CRJ 102 Introduction to Corrections</td>
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<td>CRJ 218</td>
<td>Police Supervision</td>
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<tr>
<td>CRJ 107</td>
<td>Introduction to Firearms</td>
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<td>CRJ 110</td>
<td>Principles of Asset Protection</td>
</tr>
<tr>
<td>CRJ 201</td>
<td>Introduction to Criminalistics</td>
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<tr>
<td>CRJ 202</td>
<td>Issues and Ethics in Criminal Justice</td>
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<tr>
<td>CRJ 203</td>
<td>Community Corrections: Probation and Parole</td>
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<td>CRJ 204</td>
<td>Criminal Investigations</td>
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<td>CRJ 208</td>
<td>Delinquency and the Juvenile Justice System</td>
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<td>CRJ 210</td>
<td>Physical Security Technology &amp; Systems</td>
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<td>CRJ 211</td>
<td>Liability and Legal Issues</td>
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<td>CRJ 215</td>
<td>Introduction to Law Enforcement</td>
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<td>CRJ 216</td>
<td>Criminal Law</td>
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<td>CRJ 217</td>
<td>Criminal Procedures</td>
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<td>CRJ 220</td>
<td>Introduction to Computer Forensics for Criminal Justice</td>
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<td>CRJ 222</td>
<td>Prison &amp; Jail Administration</td>
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<td>Criminal Justice Courtroom Procedures</td>
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<td>CRJ 231</td>
<td>Legal Aspects of Corrections</td>
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<td>CRJ 240</td>
<td>Introduction to Corporate &amp; Industrial Security</td>
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<td>CRJ 245</td>
<td>Introduction to Business and Industrial Fraud</td>
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<td>CRJ 279</td>
<td>Terrorism and Political Violence</td>
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<td>CRJ 290</td>
<td>Internship in Criminal Justice</td>
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<td>CRJ 299</td>
<td>Selected Topics in Law Enforcement</td>
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### Dental Assisting/Dental Hygiene: 2011-2012

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### Dental Hygiene (BCTC): 2011-2012

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<td>OB/GYN Sonography</td>
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<td>DMS 215</td>
<td>Cardiac Sonography III</td>
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<tr>
<td>DMS 217</td>
<td>Basic Cardiac Ultrasound Sonography</td>
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<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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<td>DMS 237</td>
<td>Vascular Clinical Education III</td>
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<td>DMS 245</td>
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<td>Vascular Technology</td>
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<td>DMS 260</td>
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<td>Basic Vascular Technology</td>
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**Digital Game and Simulation Design: 2012-2013**

(Previously listed under Digital Game Design)

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<th>New Courses</th>
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<tr>
<td>DGD 132</td>
<td>Introduction to 3D Graphics</td>
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<td>DGD 232</td>
<td>3D Character Development</td>
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<td>DGD 234</td>
<td>3D Animation</td>
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**Education: 2011-2012**

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<td>Orientation to Education</td>
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<tr>
<td>EDU 120</td>
<td>Child &amp; Adolescent Development</td>
</tr>
<tr>
<td>EDU 130</td>
<td>Introduction to Special Education</td>
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<tr>
<td>EDU 140</td>
<td>Introduction to Behavioral Management</td>
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<td>EDU 150</td>
<td>Practical Experiences for the Paraeducator</td>
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<td>EDU 201</td>
<td>Introduction to American Education</td>
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<td>EDU 204</td>
<td>Technology in the Classroom</td>
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<tr>
<td>EDU 240</td>
<td>Elementary &amp; Middle School Literature</td>
</tr>
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<td>EDU 270</td>
<td>Elementary School Literature</td>
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<tr>
<td>EDU 280</td>
<td>Education Externship/Co-op</td>
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<td>EDU 299</td>
<td>Selected Topics in Education</td>
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### Education: 2013-2014

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<th>New Courses</th>
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<td>EDM 270</td>
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### Emergency Medical Services – Paramedic: 2013-2014

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<tr>
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<td>PAR 230 Clinical Practicum I</td>
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<td>PAR 2302 Clinical Practicum I-B</td>
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<td>Dropped</td>
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<td>Dropped</td>
<td>PAR 2401 Field Internship I - A</td>
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<td>PAR 2402 Field Internship I - B</td>
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<td>EMS 200 Introduction to Paramedicine - NEW</td>
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<tr>
<td>EMS 210 Emergency Pharmacology - NEW</td>
<td>PAR 2401 Field Internship I - A</td>
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<tr>
<td>EMS 211 Fundamentals Lab - NEW</td>
<td>PAR 2402 Field Internship I - B</td>
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<tr>
<td>EMS 215 Clinical Experience I - NEW</td>
<td>PAR 240 Field Internship I</td>
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<tr>
<td>EMS 220 Cardiovascular Emergencies - NEW</td>
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<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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<td>EMS 230 Traumatic Emergencies - NEW</td>
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<td>EMS 231 Medical Lab - NEW</td>
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<td>EMS 235 Clinical Experience III - NEW</td>
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<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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### Energy Systems: 2011-2012

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<td>ESP 101 Introduction to Energy Systems</td>
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<tr>
<td>ESP 110 Petroleum Based Fuels</td>
<td>ES 110 Introduction to Petroleum Based Fuels</td>
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<tr>
<td>ESP 120 Power Plant Chemistry</td>
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<tr>
<td>ESP 130 Electrical Concepts</td>
<td>ES 130 Electrical Concepts</td>
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<tr>
<td>ESP 132 Electrical Machinery and Controls</td>
<td>ES 132 Electrical Machinery and Controls</td>
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<tr>
<td>ESP 211 Power Plant Operations I</td>
<td>ES 211 Power Plant Operations I: Introduction to Power Plant Operations</td>
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<td>ESP 212 Power Plant Operations II</td>
<td>ES 212 Power Plant Operations II: Boilers/Fuel/Air Combustion/Emissions</td>
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<td>ESP 214 Power Plant Operations IV</td>
<td>ES 214 Power Plant Operations IV: Auxiliaries</td>
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<td>ESP 220 Power Plant Thermodynamics</td>
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### Engineering & Electronics Technology (Previously MIT: Engineering Technology): 2011-2012

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<td>ELT 106 Mechanical Engineering Graphics</td>
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<td>ELT 110 Circuits I</td>
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<td>ELT 114 Circuits II</td>
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<td>ELT 118 Computer Numerical Control</td>
<td>ET 118 Manufacturing III, Computer Numerical Control</td>
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<td>ELT 120 Digital I</td>
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<td>ELT 122 Mechanical Power Transmissions Systems</td>
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<td>ELT 201 Statics and Strength of Materials</td>
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<td>ELT 205 Advanced Computer Maintenance</td>
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<td>ELT 208 Thermodynamic Applications</td>
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<tr>
<td>ELT 210 Devices I</td>
<td>ENGT 210 Devices I</td>
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<td>ELT 222</td>
<td>Mechanics of Telephony</td>
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<td>Basic Telecommunications Installation and Mainte-</td>
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<td>ELT 226</td>
<td>Safety in the Workplace</td>
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<td>ELT 232</td>
<td>Computer Software Maintenance</td>
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<td>Computer Hardware Maintenance</td>
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<td>Communications Electronics</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>ELT 250</td>
<td>Programmable Logic Controllers</td>
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<td>ELT 256</td>
<td>Microprocessor Fundamentals</td>
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<td>ELT 260</td>
<td>Robotic and Industrial Automation</td>
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<td>Instrumentation and Measurements</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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<td>Selected Topics in Engineering Technology: (Topic)</td>
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<td>ELT 295</td>
<td>Independent Problems</td>
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**Engineering and Electronics Technology: 2012-2013**

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**Foreign Language: 2010-2011**

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<td>GER 101</td>
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<td>Elementary German I</td>
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<td>GEN 100 Introduction to College</td>
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<tr>
<td>GEN 102 Foundations of Learning</td>
<td>GE 101 Strategies for Academic Success</td>
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<td>AGR 101 The Economics of Food and Agriculture</td>
<td>GEN 101 The Economics of Food and Agriculture</td>
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<td>GEN 103 Principles of Peer Mentoring</td>
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<td>GEN 104 Applied Principles of Peer Mentoring</td>
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<td>GEN 120 Service Learning</td>
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<td>GEN 122 The Exemplary Tutor</td>
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<td>GEN 125 Applied Meta-Thinking</td>
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<td>GEN 130 Introduction to Information Resources</td>
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<td>GEN 131 Basic Library Research and Resources</td>
<td>GE 131 Basic Library Research and Resources</td>
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<td>GEN 140 Development of Leadership</td>
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<td>GEN 150 Basic Computer Skills</td>
<td>GE 150 Computer Literacy</td>
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<td>GEN 175 Career and Life Skills Development</td>
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<td>GEN 225 Lifelong Learning Applications</td>
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<td>GEN 276 Employment and Professional Skills</td>
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**Global Studies: 2011-2012**

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### Health Physics: 2011-2012

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<tr>
<td>HPH 101  Introduction to Health Physics I</td>
<td>HP 101  Introduction to Health Physics I</td>
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<tr>
<td>HPH 102  Introduction to Health Physics II</td>
<td>HP 102  Introduction to Health Physics II</td>
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<tr>
<td>HPH 120  Introduction to Radiation Biology</td>
<td>HP 120  Introduction to Radiation Biology</td>
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<tr>
<td>HPH 201  Nuclear Instrumentation and Measurement I</td>
<td>HP 201  Nuclear Instrumentation and Measurement I</td>
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<td>HPH 202  Nuclear Instrumentation and Measurement II</td>
<td>HP 202  Nuclear Instrumentation and Measurement II</td>
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<td>HPH 246  Environmental Law</td>
<td>ENVR 246  Environmental Law</td>
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<td>HSEM 100  Introduction to Homeland Security</td>
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<tr>
<td>HSM 110  Introduction to Emergency Management</td>
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### Human Services: 2011-2012

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<td>HS 101  Human Services Survey</td>
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<tr>
<td>HMS 102  Values of Human Services in a Contemporary Society</td>
<td>HS 102  Values of Human Services in a Contemporary Society</td>
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<tr>
<td>HMS 103  Theories and Techniques in Human Services</td>
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<td>HMS 104  Group Dynamics for Human Services</td>
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<td>HMS 200  Dynamics of Human Behavior</td>
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<tr>
<td>HMS 210  Drugs, Society &amp; Human Behavior</td>
<td>HS 210  Drugs, Society &amp; Human Behavior</td>
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<td>HMS 211  Introductions to Addictions</td>
<td>HS 211  Introductions to Addictions</td>
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<tr>
<td>HMS 212  Crisis Intervention</td>
<td>HS 212  Crisis Intervention</td>
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<td>HMS 220  Cultural Diversity in Human Services</td>
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<tr>
<td>HMS 235  Teaching Persons with Mental Retardation</td>
<td>HS 235  Teaching Persons with Mental Retardation</td>
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<tr>
<td>HMS 250  Clinical Practice in Human Services</td>
<td>HS 250  Clinical Practice in Human Services</td>
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<td>HMS 265  Working with Disabilities in Human Services</td>
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<td>HMS 299  Special Topics in Human Services: (Topic)</td>
<td>HS 299  Special Topics in Human Services: (Topic)</td>
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<td>SWK 124  Introduction to Social Services</td>
<td>SW 124  Introduction to Social Services</td>
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<tr>
<td>SWK 222  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>INDT 233 Statistical Process Control</td>
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<td>ITE 250</td>
<td>INDT 250 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 105</td>
<td>MASE 105 Introductory Masonry</td>
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<tr>
<td>MSY 115</td>
<td>MASE 115 Intermediate Masonry</td>
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<tr>
<td>MSY 198</td>
<td>MASE 198 Practicum</td>
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<tr>
<td>MSY 199</td>
<td>MASE 199 Cooperative Education I</td>
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<td>MASE 201 Special Problems II</td>
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<td>MSY 205</td>
<td>MASE 205 Advanced Masonry</td>
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<td>MSY 215</td>
<td>MASE 215 Masonry Lab</td>
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<td>MSY 225</td>
<td>MASE 225 Brick Construction</td>
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<td>MSY 235</td>
<td>MASE 235 Special Techniques in Brick Construction</td>
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<tr>
<td>MSY 245</td>
<td>MASE 245 Anchors and Reinforcement</td>
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<tr>
<td>MSY 251</td>
<td>MASE 251 Concrete Finishing</td>
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<td>MASE 253 Masonry Floors and Steps</td>
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<tr>
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<td>MASE 255 Glass Blocks and Tile</td>
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<td>MSY 257</td>
<td>MASE 257 Stone</td>
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**Math: 2012-2013**

<table>
<thead>
<tr>
<th>New Courses</th>
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<tbody>
<tr>
<td>MIT 103 Medical Office Terminology</td>
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<tr>
<td>MIT 104 Medical Insurance</td>
<td>OST 104 Introduction to Medical Insurance</td>
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<tr>
<td>MIT 106 Introduction to Medical Transcription</td>
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<tr>
<td>MIT 204 Medical Coding</td>
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<tr>
<td>MIT 205 Advanced Medical Coding</td>
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<td>MIT 206 Medical Transcription</td>
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<tr>
<td>MIT 208 Inpatient Coding</td>
<td>OST 208 Introduction to Hospital Coding</td>
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<tr>
<td>MIT 212 Medications</td>
<td>OST 212 Medications</td>
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<tr>
<td>MIT 217 Medical Office Procedures</td>
<td>OST 217 Medical Office Procedures</td>
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<tr>
<td>MIT 227 Medical Office Software</td>
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<tr>
<td>MIT 228 Electronic Medical Records</td>
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<tr>
<td>MIT 230 Medical Information Management</td>
<td>OST 230 Medical Records and Data Management</td>
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**Medical Information Technology: 2012-2013**

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<td>CLT 101 Introduction to Clinical Laboratory</td>
</tr>
<tr>
<td>MLT 112 Urinalysis</td>
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<tr>
<td>MLT 115 Serology</td>
<td>CLT 125 Serology</td>
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<td>MLT 119 Applied Laboratory</td>
<td>CLT 130 Applied Laboratory</td>
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<tr>
<td>MLT 1191 Applied Laboratory Part 1</td>
<td>CLT 1301 Applied Laboratory Part 1</td>
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<tr>
<td>MLT 1192 Applied Laboratory Part 2</td>
<td>CLT 1302 Applied Laboratory Part 2</td>
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<tr>
<td>MLT 205 Clinical Microbiology I</td>
<td>CLT 205 Clinical Microbiology I</td>
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<tr>
<td>MLT 206 Clinical Microbiology II</td>
<td>CLT 206 Clinical Microbiology II</td>
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<tr>
<td>MLT 207 Introduction to Clinical Diagnostic Microbiology</td>
<td>CLT 207 Introduction to Clinical Diagnostic Microbiology</td>
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<td>CLT 208 Clinical Diagnostic Microbiology I</td>
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<tr>
<td>MLT 209 Clinical Diagnostic Microbiology II</td>
<td>CLT 209 Clinical Diagnostic Microbiology II</td>
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<td>MLT 215 Hematology I</td>
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**Medical Laboratory Technology: 2013-2014**

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<th>New Courses</th>
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<tbody>
<tr>
<td>MLT 101 Introduction to Clinical Laboratory</td>
<td>CLT 101 Introduction to Clinical Laboratory</td>
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<td>CLT 125 Serology</td>
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<tr>
<td>MLT 119 Applied Laboratory</td>
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<tr>
<td>MLT 1191 Applied Laboratory Part 1</td>
<td>CLT 1301 Applied Laboratory Part 1</td>
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<td>MLT 216</td>
<td>Hematology II</td>
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<td>MLT 217</td>
<td>Fundamentals of Hematology</td>
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<td>MLT 218</td>
<td>Clinical Hematology</td>
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<td>MLT 225</td>
<td>Immunohematology I</td>
</tr>
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<td>MLT 226</td>
<td>Immunohematology II</td>
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<td>Clinical Chemistry II</td>
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<td>Introduction to Clinical Chemistry</td>
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<tr>
<td>MLT 248</td>
<td>Advanced Clinical Chemistry</td>
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<td>MLT 275</td>
<td>Clinical Experience</td>
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**Mining Technology: 2011-2012**

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<td>MNG 123</td>
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<td>Mining Electricity I Lab</td>
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<td>Mining Laws</td>
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<td>Dropped</td>
<td>ET 154</td>
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<td>Dropped</td>
<td>ET 155</td>
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<td>MNG 190</td>
<td>Mine Emergency Technician</td>
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<td>Dropped</td>
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<td>MNG 274</td>
<td>Mine Safety</td>
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<td>Dropped</td>
<td>ET 271</td>
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<td>MNG 275</td>
<td>Mine Management</td>
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<td>Dropped</td>
<td>ET 274</td>
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<tr>
<td>MNG 286</td>
<td>Roof Control and Ventilation</td>
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<td>Roof Control and Ventilation</td>
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## Music: 2010-2011

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<td>MLIC 171 Brass Ensemble</td>
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<td>MLIC 174 University Chorale</td>
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<td>MUS 100 Introduction to Music</td>
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<tr>
<td>MUS 120 Music Technology I</td>
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<td>MUS 150 Class Instruction in Piano I</td>
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<td>MUS 151 Class Instruction in Piano II</td>
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<td>MLIC 152 Class Instruction in Piano</td>
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<td>MUS 153 Class Instruction in Piano IV</td>
<td>MLIC 153 Class Instruction in Piano</td>
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<tr>
<td>MUS 155 Voice Class for Non-Music Majors</td>
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<tr>
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<td>MUS 170 Music Theory, Aural</td>
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<tr>
<td>Dropped</td>
<td>MUS 171 Music Theory, Written</td>
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<td>Dropped</td>
<td>MUS 172 Music Theory, Aural</td>
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<td>MUS 174 Theory for Non Music Majors</td>
<td>MUS 174 Theory for Non Music Majors</td>
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<tr>
<td>MUS 192 University Chorus</td>
<td>MLIC 174 &amp; MLIC 192 University Chorale and University Singers</td>
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<td>MUS 206 American Music History</td>
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<td>MUS 222 History and Sociology of Rock Music</td>
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<td>MUS 260 Teaching Music for the Elementary Grades I</td>
<td>MUS 260 Teaching Music for the Elementary Grades I</td>
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## Nuclear Medicine & Molecular Imaging: 2011-2012

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<td>NMI 141 Physics and Instrumentation I</td>
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<td>NMI 142 Radiation Biology and Protection</td>
<td>NMNI 142 Radiation Biology and Protection</td>
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<td>NMI 150 Clinic I</td>
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<tr>
<td>NMI 160 Clinical Procedures II</td>
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<tr>
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<tr>
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<th>Clinic II</th>
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<td>Clinic III</td>
<td>NMMI 220</td>
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<tr>
<td>NMI 230</td>
<td>Radiopharmacy</td>
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<td>NMI 240</td>
<td>Clinical Procedures III</td>
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**Nursing (BCTC): 2011-2012**

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**Philosophy: 2010-2011**

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<tr>
<td>PHI 110</td>
<td>PHL 110</td>
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<td>PHI 130</td>
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<td>PHI 260</td>
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**Physics: 2010-2011**

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<tr>
<td>PHY 151</td>
<td>Introductory Physics I</td>
</tr>
<tr>
<td>PHY 152</td>
<td>Introductory Physics II</td>
</tr>
<tr>
<td>PHY 160</td>
<td>Physics and Astronomy for Elementary Teachers</td>
</tr>
<tr>
<td>PHY 161</td>
<td>Introductory Physics I Laboratory</td>
</tr>
</tbody>
</table>

Prefix      | Title       |
PHY 151     | Introduction to Physics |
PHY 152     | Introduction to Physics |
PHY 160     | Physics and Astronomy for Elementary Teachers |
PH 161      | Introductory Physics Laboratory I |
<table>
<thead>
<tr>
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<tbody>
<tr>
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<td>PH 162 Introductory Physics Laboratory II</td>
</tr>
<tr>
<td>PHY 171 Applied Physics</td>
<td>PH 171 Applied Physics</td>
</tr>
<tr>
<td>PHY 172 Physics for Health Sciences</td>
<td>PH 172 Physics for Health Sciences</td>
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<tr>
<td>PHY 201 College Physics I</td>
<td>PHY 201 General Physics</td>
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<td>PHY 202 College Physics I Laboratory</td>
<td>PHY 210 Special Laboratory for General Physics PHY 201</td>
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<td>PHY 203 College Physics II</td>
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<tr>
<td>PHY 204 College Physics II Laboratory</td>
<td>PHY 212 Special Laboratory for General Physics PHY 203</td>
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<td>PHY 231 General University Physics I</td>
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<tr>
<td>PHY 232 General University Physics II</td>
<td>PHY 232 General University Physics</td>
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<tr>
<td>PHY 241 General University Physics I Laboratory</td>
<td>PHY 241 General University Physics Laboratory</td>
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<tr>
<td>PHY 242 General University Physics II Laboratory</td>
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**Political Science: 2010-2011**

<table>
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<td>PS 101 American Government</td>
</tr>
<tr>
<td>POL 210 Introduction to European Politics: East and West</td>
<td>PS 210 Introduction to European Politics: East and West</td>
</tr>
<tr>
<td>POL 212 Culture and Politics in Developing Nations</td>
<td>PS 212 Culture and Politics in the Third World</td>
</tr>
<tr>
<td>POL 235 World Politics</td>
<td>PS 235 World Politics</td>
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<tr>
<td>POL 255 State Government</td>
<td>PS 155 State Government</td>
</tr>
<tr>
<td>POL 280 Issues in Public Policy</td>
<td>PS 280 Issues in Public Policy</td>
</tr>
<tr>
<td>POL 299 Special Topics in Political Science</td>
<td>PS 299 Special Topics in Political Science</td>
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**NOTE:** POL 271 removed from general education status.

**Professional Studio Artist: 2011-2012**

<table>
<thead>
<tr>
<th>New Courses</th>
<th>Old Courses</th>
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<tbody>
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<td>PSAJ 110 Jewelry/Metals I</td>
</tr>
<tr>
<td>PSJ 115 Jewelry/Metals II</td>
<td>PSAJ 115 Jewelry/Metals II</td>
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<tr>
<td>PSJ 116 Ancient Techniques</td>
<td>PSAJ 116 Ancient Techniques</td>
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<tr>
<td>PSJ 117 Metal Casting/Finishing Techniques</td>
<td>PSAJ 117 Metal Casting/Finishing Techniques</td>
</tr>
<tr>
<td>PSJ 210 Jewelry/Metals III</td>
<td>PSAJ 210 Jewelry/Metals III</td>
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<tr>
<td>PSJ 211 Hollowware and Metal Forming</td>
<td>PSAJ 211 Hollowware and Metal Forming</td>
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<td>PSJ 212 Metallurgy of Precious Metals</td>
<td>PSAJ 212 Metallurgy of Precious Metals</td>
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<td>Jewelry/Metals IV</td>
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<td>PSJ 216</td>
<td>Stone Settings</td>
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<tr>
<td>PSJ 220</td>
<td>Jewelry/Metals Product Development</td>
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<td>Jewelry/Metals V</td>
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<td>Bluegrass &amp; Traditional Music History I: Geographic Influence &amp; Instrumental Origin</td>
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<td>Recording I</td>
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<td>PSM 108</td>
<td>Songwriting I</td>
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<td>PSM 110</td>
<td>Individual Stringed Instrument Instruction</td>
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<td>Guitar I</td>
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<td>PSM 115</td>
<td>Bluegrass &amp; Traditional Band/Ensemble</td>
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<td>PSM 116</td>
<td>Bluegrass &amp; Traditional Harmony/Part Singing</td>
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<tr>
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<td>Bluegrass &amp; Traditional Music History II: Evolution of Old Time, Folk and Early Bluegrass</td>
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<td>PSM 125</td>
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<td>Recording III</td>
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<tr>
<td>PSM 238</td>
<td>Songwriting III</td>
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<td>PSM 241</td>
<td>Bluegrass &amp; Traditional Music History IV: The Masters &amp; Their Music</td>
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<tr>
<td>PSM 245</td>
<td>Recording IV</td>
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<td>PSM 248</td>
<td>Songwriting IV</td>
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<td>Field Experience/Production/Business</td>
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<td>Introduction to Furniture Making</td>
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<td>PSW 115</td>
<td>Furniture Making II</td>
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<td>PSW 116</td>
<td>Wood Finishing</td>
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<td>PSW 117</td>
<td>Wood Turning for Furniture</td>
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<td>PSW 210</td>
<td>Furniture Making III</td>
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<td>PSW 211</td>
<td>Wood Bending and Veneering</td>
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<td>PSW 212</td>
<td>Chair Design</td>
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<td>PSW 215</td>
<td>Furniture Making IV</td>
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<td>PSW 220</td>
<td>Furniture/Wood Product Development</td>
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<td>PSW 230</td>
<td>Furniture Making V</td>
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### Professional Studio Artist: 2013-2014

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<td>PSM 113 Guitar I</td>
<td>PSM 111 Guitar I</td>
</tr>
<tr>
<td>PSM 114 Bluegrass &amp; Traditional Band/Ensemble</td>
<td>PSM 115 Bluegrass &amp; Traditional Band/Ensemble</td>
</tr>
<tr>
<td>PSM 117 Songwriting II</td>
<td>PSM 128 Songwriting II</td>
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<td>PSM 118 Bluegrass &amp; Traditional Harmony/Part Singing</td>
<td>PSM 116 Bluegrass &amp; Traditional Harmony/Part Singing</td>
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<td>PSM 217 Songwriting III</td>
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### Psychology: 2010-2011

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Appendix F

Gainful Employment Disclosures

These disclosures provide important information about the educational debt, earnings, and completion rates of students who attend the program. Below you will find links to the GE disclosures for each college.

Ashland Community and Technical College:

Big Sandy Community and Technical College:

Bluegrass Community and Technical College:
http://www.bluegrass.kctcs.edu/Academics/Gainful_Employment_Disclosure_Information.aspx

Elizabethtown Community and Technical College:

Gateway Community and Technical College:

Hazard Community and Technical College:

Henderson Community College:

Hopkinsville Community College:

Jefferson Community and Technical College:

Madisonville Community College:

Maysville Community and Technical College:

Owensboro Community and Technical College:

Somerset Community College:

Southcentral Kentucky Community and Technical College:

Southeast Community and Technical College:

West Kentucky Community and Technical College:
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