NEVER UNDERESTIMATE YOU
Kentucky Community and Technical College System
300 North Main Street
Versailles, KY 40383
877.KCTCS.4U (toll-free)
877.528.2748
859.256.3100

KCTCS COLLEGES

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

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

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

Elizabethtown Community and Technical College
elizabethtown.kctcs.edu
270.769.2371

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

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

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

Hopkinsville Community College
hopkinsville.kctcs.edu
270.707.3700

Jefferson Community and Technical College
jefferson.kctcs.edu
502.213.5333

Maysville Community and Technical College
maysville.kctcs.edu
606.759.7141

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

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

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

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

West Kentucky Community and Technical College
westkentucky.kctcs.edu
855.469.5282 (toll-free)
# Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Message from Dr. Jay Ox. KCTCS President</td>
<td>3</td>
</tr>
<tr>
<td>History and Functions of KCTCS</td>
<td>4</td>
</tr>
<tr>
<td>Mission Statement</td>
<td>4</td>
</tr>
<tr>
<td>Academic Calendar</td>
<td>4</td>
</tr>
<tr>
<td>KCTCS Leadership*</td>
<td>5</td>
</tr>
<tr>
<td>Colleges</td>
<td>6</td>
</tr>
<tr>
<td>Ashland Community and Technical College</td>
<td>6</td>
</tr>
<tr>
<td>Big Sandy Community and Technical College</td>
<td>8</td>
</tr>
<tr>
<td>Bluegrass Community and Technical College</td>
<td>10</td>
</tr>
<tr>
<td>Elizabethtown Community and Technical College</td>
<td>13</td>
</tr>
<tr>
<td>Gateway Community and Technical College</td>
<td>15</td>
</tr>
<tr>
<td>Hazard Community and Technical College</td>
<td>17</td>
</tr>
<tr>
<td>Henderson Community College</td>
<td>19</td>
</tr>
<tr>
<td>Hopkinsville Community College</td>
<td>21</td>
</tr>
<tr>
<td>Jefferson Community and Technical College</td>
<td>23</td>
</tr>
<tr>
<td>Madisonville Community College</td>
<td>27</td>
</tr>
<tr>
<td>Maysville Community and Technical College</td>
<td>29</td>
</tr>
<tr>
<td>Owensboro Community and Technical College</td>
<td>32</td>
</tr>
<tr>
<td>Somerset Community College</td>
<td>34</td>
</tr>
<tr>
<td>Southcentral Kentucky Community and Technical College</td>
<td>37</td>
</tr>
<tr>
<td>Southeast Kentucky Community and Technical College</td>
<td>39</td>
</tr>
<tr>
<td>West Kentucky Community and Technical College</td>
<td>41</td>
</tr>
<tr>
<td>Admission</td>
<td>44</td>
</tr>
<tr>
<td>Applying for Admission</td>
<td>44</td>
</tr>
<tr>
<td>Admission and Registration Procedures</td>
<td>44</td>
</tr>
<tr>
<td>Non-Degree/Non-Credential Students</td>
<td>44</td>
</tr>
<tr>
<td>High School Students</td>
<td>44</td>
</tr>
<tr>
<td>Freshmen Entering College for the First Time</td>
<td>45</td>
</tr>
<tr>
<td>Second Chance Students</td>
<td>45</td>
</tr>
<tr>
<td>Transient/Visiting Students</td>
<td>45</td>
</tr>
<tr>
<td>International Students</td>
<td>45</td>
</tr>
<tr>
<td>Readmission after Two or More Years: Academic Bankruptcy</td>
<td>45</td>
</tr>
<tr>
<td>Students with Previous College Work</td>
<td>45</td>
</tr>
<tr>
<td>Change of Program</td>
<td>45</td>
</tr>
<tr>
<td>KCTCS Assessment and Placement Policy</td>
<td>45</td>
</tr>
<tr>
<td>General Provisions</td>
<td>45</td>
</tr>
<tr>
<td>Special Provisions</td>
<td>46</td>
</tr>
<tr>
<td>Associate Degree-Seeking Students</td>
<td>47</td>
</tr>
<tr>
<td>Mathematics Placement Levels</td>
<td>47</td>
</tr>
<tr>
<td>Reading Placement</td>
<td>48</td>
</tr>
<tr>
<td>Reading Placement Levels</td>
<td>48</td>
</tr>
<tr>
<td>English Placement</td>
<td>49</td>
</tr>
<tr>
<td>English Placement Levels</td>
<td>49</td>
</tr>
<tr>
<td>English as a Second Language (ESL)</td>
<td>49</td>
</tr>
<tr>
<td>ESL Placement Levels at Bluegrass Community &amp; Technical College</td>
<td>49</td>
</tr>
<tr>
<td>ESL Placement Levels at Jefferson Community &amp; Technical College</td>
<td>49</td>
</tr>
<tr>
<td>Certificate and Diploma-Seeking Students</td>
<td>50</td>
</tr>
<tr>
<td>Appendix I: Assessment and Placement of Dual Credit High School Students</td>
<td>50</td>
</tr>
<tr>
<td>Appendix II: Course Placement for Older or Uncommon Measures</td>
<td>51</td>
</tr>
<tr>
<td>Mathematics Placement Levels</td>
<td>52</td>
</tr>
<tr>
<td>Reading Placement Levels</td>
<td>52</td>
</tr>
<tr>
<td>English Placement Levels</td>
<td>53</td>
</tr>
<tr>
<td>Appendix III: Council on Postsecondary Education College Readiness Indicators</td>
<td>53</td>
</tr>
<tr>
<td>Tuition and Charges</td>
<td>54</td>
</tr>
<tr>
<td>Tuition and Charges</td>
<td>54</td>
</tr>
<tr>
<td>Mandatory Student Fee</td>
<td>54</td>
</tr>
<tr>
<td>Charges for Customized Course Offerings</td>
<td>54</td>
</tr>
<tr>
<td>Charges for Services</td>
<td>54</td>
</tr>
<tr>
<td>Charges for Special Examination</td>
<td>54</td>
</tr>
<tr>
<td>Cancellation of Registration for Non-Payment of Charges</td>
<td>54</td>
</tr>
<tr>
<td>Payment Plan Options</td>
<td>54</td>
</tr>
<tr>
<td>Last Day to Enter an Organized Class</td>
<td>55</td>
</tr>
</tbody>
</table>

## Financial Aid

<table>
<thead>
<tr>
<th>Subsection</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overview</td>
<td>57</td>
</tr>
<tr>
<td>Student Eligibility and Application</td>
<td>57</td>
</tr>
<tr>
<td>Dual Enrollment/Consortium Agreements</td>
<td>57</td>
</tr>
<tr>
<td>Federal Student Loans</td>
<td>57</td>
</tr>
<tr>
<td>State Programs</td>
<td>57</td>
</tr>
<tr>
<td>Statutory Scholarships (Waivers) for Kentucky Residents</td>
<td>57</td>
</tr>
<tr>
<td>KCTCS and College Scholarships for Kentucky Residents</td>
<td>57</td>
</tr>
<tr>
<td>College Tuition Scholarships</td>
<td>57</td>
</tr>
<tr>
<td>Third Party Assistance Programs</td>
<td>58</td>
</tr>
<tr>
<td>Tax Credits</td>
<td>58</td>
</tr>
<tr>
<td>Satisfactory Academic Progress (SAP)</td>
<td>58</td>
</tr>
<tr>
<td>SAP Appeal Process</td>
<td>58</td>
</tr>
<tr>
<td>Suspension Due to GPA</td>
<td>58</td>
</tr>
<tr>
<td>Personal Financial Liability - Withdrawing or All &quot;E's</td>
<td>58</td>
</tr>
</tbody>
</table>

## Services for Students

<table>
<thead>
<tr>
<th>Subsection</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student and Academic Services</td>
<td>59</td>
</tr>
<tr>
<td>Policies and Procedures</td>
<td>60</td>
</tr>
<tr>
<td>Student Organizations</td>
<td>60</td>
</tr>
<tr>
<td>FERPA</td>
<td>61</td>
</tr>
</tbody>
</table>

## Academic Services

<table>
<thead>
<tr>
<th>Subsection</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>63</td>
</tr>
<tr>
<td>Academic Advising</td>
<td>63</td>
</tr>
<tr>
<td>General Education Certifications</td>
<td>63</td>
</tr>
<tr>
<td>Transfer to Baccalaureate Institutions</td>
<td>63</td>
</tr>
<tr>
<td>Non-Classroom Learning Experiences</td>
<td>67</td>
</tr>
<tr>
<td>Modulated Credit Courses</td>
<td>68</td>
</tr>
<tr>
<td>Academic Policies and Rules</td>
<td>68</td>
</tr>
<tr>
<td>Policies Related to Enrollment</td>
<td>68</td>
</tr>
<tr>
<td>Policies Related to Graduation</td>
<td>70</td>
</tr>
<tr>
<td>Academic Credentials Awarded</td>
<td>71</td>
</tr>
<tr>
<td>General Education Requirements</td>
<td>75</td>
</tr>
<tr>
<td>Course Transitions</td>
<td>78</td>
</tr>
<tr>
<td>Employment and Earnings Information</td>
<td>78</td>
</tr>
<tr>
<td>Admission to Programs</td>
<td>79</td>
</tr>
<tr>
<td>KCTCS College Codes</td>
<td>79</td>
</tr>
</tbody>
</table>

## KCTCS Online

<table>
<thead>
<tr>
<th>Subsection</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online Programs</td>
<td>80</td>
</tr>
<tr>
<td>KCTCS Online by Term — Semester-based Online Programs</td>
<td>80</td>
</tr>
<tr>
<td>KCTCS Online by Term — Demand Programs</td>
<td>80</td>
</tr>
</tbody>
</table>

## Academic Curricula

<table>
<thead>
<tr>
<th>Subsection</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate in Applied Science (A.A.S.) Curricula</td>
<td>81</td>
</tr>
<tr>
<td>Advanced Integrated Manufacturing</td>
<td>81</td>
</tr>
<tr>
<td>Advanced Integrated Technology</td>
<td>81</td>
</tr>
<tr>
<td>Advanced Manufacturing</td>
<td>83</td>
</tr>
<tr>
<td>African American Studies</td>
<td>83</td>
</tr>
<tr>
<td>Agricultural Studies</td>
<td>83</td>
</tr>
<tr>
<td>Agriculture</td>
<td>84</td>
</tr>
<tr>
<td>Air Conditioning Technology</td>
<td>86</td>
</tr>
<tr>
<td>Appalachian Studies</td>
<td>88</td>
</tr>
<tr>
<td>Applied Engineering Technology</td>
<td>89</td>
</tr>
<tr>
<td>Applied Process Technologies</td>
<td>89</td>
</tr>
<tr>
<td>Apprenticeship Studies</td>
<td>90</td>
</tr>
<tr>
<td>Architectural Technology</td>
<td>90</td>
</tr>
<tr>
<td>Auto Body/Collision Repair Technology</td>
<td>91</td>
</tr>
<tr>
<td>Automotive Technology</td>
<td>92</td>
</tr>
<tr>
<td>Aviation Maintenance Technology</td>
<td>94</td>
</tr>
</tbody>
</table>
Biomedical Technology Systems ................................................................. 95
Biotechnology Laboratory Technician ......................................................... 95
Broadband Technology ................................................................................. 97
Building Controls Technician ...................................................................... 99
Business Studies ........................................................................................... 99
Administrative Office Technology ................................................................. 99
Business Administration .............................................................................. 102
Medical Information Technology ................................................................. 109
Supply Chain Management ........................................................................... 111
Business Communication ........................................................................... 112
Business Foundations .................................................................................. 112
Career Facilitator .......................................................................................... 112
Certified Medical Technician ....................................................................... 113
Civil Engineering Technology ..................................................................... 113
Community Dental Health Coordinator ......................................................... 113
Community Health Worker .......................................................................... 113
Computer Aided Drafting and Design ........................................................... 114
Computer & Information Technologies ......................................................... 115
Computerized Manufacturing and Machining ............................................. 124
Construction Technology ............................................................................ 126
Cosmetology .................................................................................................. 129
Criminal Justice ............................................................................................. 130
Culinary Arts ................................................................................................ 132
Dental Hygiene ............................................................................................... 134
Dental Assisting/Dental Hygiene Integrated Program ................................... 135
Diagnostic Medical Sonography .................................................................. 136
Diesel Technology .......................................................................................... 137
Digital Printing Technology .......................................................................... 141
Education ........................................................................................................ 141
Emergency Medical Services - Paramedic ..................................................... 141
Energy Management ..................................................................................... 142
Energy Technologies ..................................................................................... 143
Engineering and Electronics Technology ..................................................... 144
Environmental Science Technology ............................................................. 150
Environmental Technology .......................................................................... 151
Equine Studies .............................................................................................. 152
Exercise Science ........................................................................................... 153
Financial and Customer Services ................................................................. 154
Fire/Rescue Science Technology .................................................................. 154
General Occupational/Technical Studies ..................................................... 155
Geospatial Technology .................................................................................. 156
Global Studies ............................................................................................... 156
Graphic Design and Library Technology ...................................................... 156
Health Care Foundations .............................................................................. 158
Health Care Specialist ................................................................................. 158
Healthcare Facilities Leadership .................................................................... 159
Health Information Technology .................................................................... 159
Health Science Technology .......................................................................... 180
Heavy Equipment Operation ......................................................................... 161
Historic Preservation Technology ................................................................. 161
Horticulture ................................................................................................... 161
Human Services .............................................................................................. 163
Industrial Chemical Technology ................................................................... 164
Insurance Risk Management ....................................................................... 165
Integrated Engineering Technology ............................................................. 165
Interdisciplinary Early Childhood Education ............................................... 166
Invasive Cardiology ....................................................................................... 167
Life Coach ...................................................................................................... 167
Logistics and Operations Management ......................................................... 168
Manufacturing Engineering Technology ....................................................... 168
Manufacturing Industrial Technology ......................................................... 170
MIT: Electrical Technology .......................................................................... 170
MIT: Industrial Maintenance Technology ..................................................... 170
Marine Technology ....................................................................................... 180
Masonry ......................................................................................................... 181
Massage Therapy Technology ..................................................................... 182
Mechatronic Systems .................................................................................. 183
Medical Administrative Services ................................................................. 183
Medical Assisting ........................................................................................ 183
Medical Laboratory Technician .................................................................... 185
Mining Technology ....................................................................................... 186
Multi-Skilled Systems Technician ................................................................. 189
Natural Gas Technology ............................................................................... 189
Nursing .......................................................................................................... 190
Nursing Assistant – Advanced ..................................................................... 191
Nursing – Academic/Career Mobility Program ............................................ 191
Nursing - Integrated Nursing ........................................................................ 192
Nursing - Practical Nursing ......................................................................... 193
Occupational Therapy Assistant .................................................................. 194
Paralegal Technology .................................................................................... 195
Pharmacy Technology ................................................................................... 196
Physical Therapist Assistant ........................................................................ 196
Plastics Processing ......................................................................................... 197
Plumbing Technology ................................................................................... 197
Professional Craft: Pottery ........................................................................... 199
Professional Studio Artist ............................................................................. 200
Project Lead the Way ................................................................................... 203
Radiography ................................................................................................... 203
Respiratory Care ........................................................................................... 204
Security Management ................................................................................... 205
Social Media Marketing ................................................................................ 206
Surgical First Assisting ................................................................................ 206
Surgical Technology ..................................................................................... 207
Surveying and Mapping Technology ............................................................ 208
Teaching English to Speakers of Other Languages (TESOL) ................................ 209
Technical Theatre .......................................................................................... 209
Telehealth Technician Associate .................................................................. 209
Truck Driver Training ................................................................................... 209
Unmarried Systems Technology .................................................................... 210
Veterinary Technology ................................................................................. 211
Visual Communication ................................................................................ 212
Visual Communication: Communication Arts Technology ....................... 212
Visual Communication: Design & Technology ........................................... 213
Visual Communication: Multimedia ............................................................ 215
Visual Communication: Printing ................................................................. 218
Welding Technology ..................................................................................... 219
Women’s and Gender Studies ..................................................................... 221
Workplace Safety Specialist ......................................................................... 222
Associate in Fine Arts (A.F.A.) Curricula ...................................................... 222
Filmmaking and Cinematic Arts ................................................................... 222
Theatre Arts ................................................................................................. 223
Visual Arts ................................................................................................. 223
Course Descriptions....................................................................................... 225
Appendices .................................................................................................... 362
Appendix A ................................................................................................... 362
Appendix B ................................................................................................... 365
Appendix C ................................................................................................... 367
Appendix D ................................................................................................... 368
Appendix E ................................................................................................... 369
Index .............................................................................................................. 398

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’ve decided to better your life by increasing your knowledge and skills through higher education! You’ve taken that first important step by checking out the programs and classes we offer. With campuses close to you and hundreds of online offerings, I’m sure you’ll find just what you’re looking for.

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

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

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

Sincerely,

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

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

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

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

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

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

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

Last year, KCTCS trained and educated:

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

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

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

To learn more about KCTCS, visit kctcs.edu.

Mission Statement

Kentucky Community and Technical College System

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

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

Academic Calendar

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

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

The following closings are applicable to all KCTCS institutions:

July
4 Independence Day observed

September
2 Labor Day

November
28 Thanksgiving Day
29 Day After Thanksgiving

December
23 Institutional Closing
24 Institutional Closing
25 Institutional Closing
26 Institutional Closing
27 Institutional Closing
30 Institutional Closing
31 Institutional Closing

January
1 Institutional Closing
2 Institutional Closing
3 Institutional Closing
20 Martin Luther King Day

February
17 President’s Day

April
10 Good Friday (1/2 Day)

May
25 Memorial Day
KCTCS Leadership*

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

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

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

President
Dr. Jay K. Box

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

College Leadership

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

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

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

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

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

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

Henderson Community College
Dr. Jason Warren
President/CEO

Hopkinsville Community College
Dr. Alissa Young
President/CEO

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

Madisonville Community College
Dr. Cynthia Kelley
President/CEO

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

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

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

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

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

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

Ashland Community and Technical College, a member of the Kentucky Community and Technical College System, is a public, two-year degree granting institution located in Northeast Kentucky. The College supports a variety of excellent associate degree, diploma, and certificate programs with a tradition of accessible, affordable, and quality education. The College prepares students for transfer to baccalaureate programs or entry into the workforce, and has a strong commitment to meet their academic, workforce training, and lifelong learning needs.

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

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

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

Academic Programs

Transfer Curricula
- Associate in Arts
- Associate in Science

Occupational/Technical Curricula

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

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

Contact Information

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

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

General Information

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

Administration

President – Dr. Larry Ferguson (606) 326-2043
Interim Dean of Academic Affairs/CAO – Steve Flouhouse (606) 326-2055
Dean of Business Affairs – Karen Blevins (606) 326-2063
Director of Advancement- Brooke Seaborne (606) 326-2092
Dean of Institutional Planning, Research and Effectiveness – Steve Flouhouse (606) 326-2055
Dean of Student Success and Enrollment Services – Steven Woodburn (606) 326-2077
Associate Dean of Information Technology – Farnoosh Rafiee (606) 326-2069
Registrar/Director of Admissions – Robin Lewis (606) 326-2423
Director of Financial Aid – Adam Chapman (606) 326-2114
Director of Cultural Diversity – Al Baker (606) 326-2422
Faculty

Allen, Joseph D, Instructor, MSN, Chamberlain College of Nursing, 2015
Allen, Kimberly Brooke, Instructor, ADN, Ohio University, 2014
Alley, Alan C, Professor, DC, Palmer College of Chiropractic, 1998
Bailey, Danny G, Professor, MS, University of Kentucky, 1971
Blair, Kathy L, Assistant Professor, MSN, University of Phoenix, 2012
Boggs, Christopher J, Professor, AAS, Institute of Electronics Technology, 1992
Bowman, Curtis D, Professor, Certification, Collins Career Center, 1979
Bradley, John M, Professor, Certification, National Institute for Automotive Service Excellence, 1999
Bradley, Peggy L, Professor, BS, Morehead State University, 1979
Brown, Sara A, Professor, MLS, University of Kentucky, 2003
Carroll, Brigitte Lee, Instructor, BSN, Mountain State University, 2008
Cassady, Jeffrey M, Assistant Professor, AAS, Ashland Community and Technical College, 2013
Childress, David C, Professor, Morehead State University, 1985
Conley, Richard R, Professor, MS, University of Kentucky, 1973
Cullum, Randolph, Associate Professor, MA, Marshall University, 1981
Dean, Whitney M, Assistant Professor, MSN, Walden University, 1999
Edwards, Kathryn Hare Tucci, Professor, MA, Marshall University, 1991
Flath, Mary C, Professor, PhD, Medical University of South Carolina, 1991
Flouhouse, Steven D, Professor, MS, Marshall University, 1991
Fosson, Woodrow, Associate Professor, Associate of Applied Technology, ACTC, 2001
Fosterwelsh, Wendy, Professor, MFA, Georgia Southern University, 2004
Frye, Bettie E, Professor/Librarian I, MLS, University of South Carolina, 1989
Griffith-Green, Nicole, Professor, EdD, University of the Cumberlands, 2015
Hall, James C, Assistant Professor, MA, University of Louisville, 2014
Hall, Ralfred J, Professor, MS, Morehead State University, 1993
Hanks, Shannon, Instructor, PhD Ohio University 2015
Henderson, Lisa Marie, Instructor, PhD, University of Phoenix, 2013
Henry, Harold Edmond, Associate Professor, AAS, Ashland Technical College, 2002
Howard, Warren H, Professor, MA, Morehead State University, 2003
Howerton, Deena, Assistant Professor, BSN Bellarmine College 2002
James, Jesse J, Associate Professor, AAS, Ashland Community and Technical College, 2010
Joy, Jonathan, Associate Professor, MA, Marshall University, 2004
Justice, Debra, Professor, MA, Marshall University, 1997
Klinepeter, Pamela, Professor, MLS, University of Kentucky, 2005
Kumar, Ramamurthy Chandra, Professor, MS, Florida Institute of Technology, 1986
Martin, Frances, Professor, AME, Morehead State University, 1994
McCarty, Shannon, Associate Professor, Certificate, Collins Career Center, 1990
McCumbee, Jame, Professor, MA, Marshall University, 1995
McDavid, Thea K, Instructor, MSN, Walden University, 1994
McGinnis, Vicki, Associate Professor, MA University of Kentucky, 1994
Meadows, Kayla, Instructor, MS, Eastern Kentucky University, 2005
Mengistu, Aschalew, Associate Professor, PhD, University of Wales College of Medicine, 2002
Merritt, Richard P, Associate Professor, MA, Marshall University, 2011
Mohebian, Hossein, Professor, MA, Marshall University, 1983
Music, Stephen L, Assistant Professor, AAS, Big Sandy Community and Technical College, 2012
Osborne, Lydia Gail, Instructor, MSN, Walden University, 2015
OuldMoulayElarBi, Youba OuldSidna, Instructor, MBA, Ashford University, 2012
Pfau, Matthew Scott, Instructor, BS, Morehead State University, 2017
Rafiee, Farnoosh, Professor, MA, Marshall University, 1982
Ratliff, Terri Lynn, Associate Professor, BSN, Marshall University, 1993
Riggs, Mark, Professor, MS, Mississippi State University, 2000
Robinson, Natalie, Associate Professor, BSN, Bellarmine University, 2007
Sharp, Beverly Ann, Instructor, BS, Marshall University, 1992
Skidmore, Ashley, Associate Professor, MA, University of Kentucky, 2006
Smith, Mark S, Assistant Professor, BS, Morehead State University, 1999
Smith, Monique K, Assistant Professor, AAS, Somerset Community College, 2010
Stevens, Tyler B, Assistant Professor, AAS, Ashland Community and Technical College, 2009
Stewart, Courtney Brooke, Instructor, AAS, Ashland Community and Technical College, 2015
Tackett, Michael B, Assistant Professor, AAS, Ashland Community and Technical College, 2008
Thompson, Janet C, Instructor, MS, Marshall University, 2013
Thornton, Jack D, Associate Professor, AAS, Columbus State University, 1986
Troupe, Sheri D Wildy, Instructor, MA, Murray University, 2016
Tussey, Laura L, Associate Professor, MA, Marshall University, 2000
Wallace-Vernatter, Susan Y, Assistant Professor, BS, Bellevue University, 2008
Wheeler, Thomas, Instructor, Certification, Ashland State Vocational, 1986
Big Sandy Community and Technical College

Mission Statement/Status of Accreditation

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

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

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

Academic Programs

Transfer Curricula

Associate in Arts
Associate in Science

Occupational/Technical Curricula

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

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

Contact Information

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

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

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

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

General Information

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

- Academic Center for Excellence (606) 889-4834
- Academic Services (Program Information) (606) 889-4794
- Admissions & Records Office (606) 886-3863 Option 2
- Adult Education (606) 788-2887
- Advising Center (606) 889-4775
- Business Services 1-855-G0-BSCTC (1-855-462-7282)
- Career Education & Workforce Development (606) 218-1276
- Disability Services (606) 886-7391
- Financial Aid 1-855-G0-BSCTC (1-855-462-7282)
Interim Chief Academic Officer / Dean of Academic Services
Myra Elliott

Chief Student Affairs Officer
Jimmy Wright

Director of Business/Industry Development
Judy Daniel
(606) 788-2812

Director of Enrollment Management
Billie Jean Cole
(606) 889-4808

Director of East KY Science Ctr and Planetarium
Steven L. J. Russo
(606) 889-4809

Director of Financial Aid
Cathy Hurd-Crank
1-855-GO-BSTCCT

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Connie Estep
(606) 788-2892

Director of Human Resources
Krystal Tackett
(606) 889-4724

Director of Information Technology
Casey Music
(606) 788-2809

Director of Library Services
Vacant
(606) 889-4748

Interim Director of Performing Arts/Executive Director of the Mountain Arts Center
Joe Campbell
(606) 886-7388

Interim Director of Strategic Communications
Greta Slone
(606) 889-4734

Faculty

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

Administration

President
Dr. Sherry Zylka

Chief Financial Officer
Michelle Meek

Interim Chief Academic Officer / Dean of Academic Services
Myra Elliott

Dean of Information Technology & Facilities Mgmt
John Herald

Chief Student Affairs Officer
Jimmy Wright

Director of Business/Industry Development
Judy Daniel
(606) 788-2812

Director of Enrollment Management
Billie Jean Cole
(606) 889-4808

Director of East KY Science Ctr and Planetarium
Steven L. J. Russo
(606) 889-4809

Director of Financial Aid
Cathy Hurd-Crank
1-855-GO-BSTCCT

Director of Grants Development
Connie Estep
(606) 788-2892

Director of Human Resources
Krystal Tackett
(606) 889-4724

Director of Information Technology
Casey Music
(606) 788-2809

Director of Library Services
Vacant
(606) 889-4748

Interim Director of Performing Arts/Executive Director of the Mountain Arts Center
Joe Campbell
(606) 886-7388

Interim Director of Strategic Communications
Greta Slone
(606) 889-4734

Library
(606) 889-4834

President’s Office
(606) 886-7371

Public Relations
(606) 889-4734

Registrar
(606) 886-7335

Security
(606) 886-7364

Student Services
(606) 886-7395

Website
Bluegrass Community and Technical College

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

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

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

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

Academic Programs

Transfer Curricula
Associate in Arts
Associate in Science

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

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

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

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

Contact Information

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

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

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

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

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

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

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

Phone Numbers

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

Administration

President/CEO
Dr. Koffi C. Akakpo

Vice President, Academics and Workforce Development
Greg Feeney

Dean of Academics
Karen Mayo

Dean of Workforce Development
Tammy Liles

Dean, Academic Support
Pam Hatcher

Chief, Academic Support
Rebecca Simms

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

Vice President, Student Development and Enrollment Management
Mark Manuel

Chief, Admissions
Lisa Bell

Chief Officer, Public Information and Marketing
Mark Manuel

Chief Development Officer
Laurel Martin

Faculty

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

Papanicolaou, Thomas, Associate Professor, MS, University of Kentucky, 1994

Otieno, Iddah Aoko, Professor, PhD, University of Kentucky, 2012

Murphy, Donna LJ, Professor, MHE, Morehead State University, 1982

Mullins, Larry McDowell, Associate Professor, MA, University of Kentucky, 1992

Herschel, Matthew, Assistant Professor, MA, University of Kentucky, 2011

Hinkle, Robert R, Professor, MA, University of Kentucky, 2000

Hoeftstra, Joshua M, Professor, PhD, University of Kentucky, 2019

Holt, Deborah Jones, Professor, MS, University of Kentucky, 1995

Hopper, Kevin R, Professor, PhD, University of Kentucky, 1998

Houghton, Lori, Professor, MA, Eastern Kentucky University, 1995

Holladay, Amy, Instructor, MA, Indiana University, 2001

Holladay, Amy, Instructor, MA, Indiana University, 2001

Hoyt, Robert, Associate Professor, MS, University of Kentucky, 1985

Hodgson, Staci, Associate Professor, MA, Eastern Kentucky University, 2004

Holt, Deborah Jones, Professor, MS, University of Kentucky, 1995

Hoppe, Kevin R, Professor, PhD, University of Kentucky, 1998

Houghton, Lori, Professor, MA, Eastern Kentucky University, 1995

Holladay, Amy, Instructor, MA, Indiana University, 2001

Hughes, Joshua, Associate Professor, MS, University of Kentucky, 1997

Hunter, Jared, Instructor, MA, Georgia Southern University, 2018

Jenkins, Marly G, Instructor, AAS, Bluegrass Community and Technical College, 2016

Jensen, Kevin, Assistant Professor, BA, Brigham Young University, 1987

Jent, Ashley, Assistant Professor, BS, Midway University, 2019

Johnson, Tanya R, Assistant Professor, BA, University of Kentucky, 1992

Jones, Jenny, Associate Professor, PhD, Capella University, 2018

Jones, Mary W, Associate Professor, MPh, Eastern Kentucky University, 2013

Kalala, Nkongolo, Associate Professor, PhD, University of Kentucky, 1995

Kelly, Ryan S, Professor, MS, Florida State University, 1995

King, Angella M, Professor, MA, University of South Carolina, 2000

King, Richard N, Professor, MS, University of Kentucky, 1994

Klosterman, Lesley, Assistant Professor, MSRS, Northwestern State University, 2017

Knight, Brandon, Professor, MA, Texas Tech University, 1998

Knowles, Tracy Lyn, Professor, MS, University of Indiana, 1998

Kolasa, James Reid, Professor, MS, University of Kentucky, 1994

Lane Jr, Leon, Associate Professor, MA, University of Kentucky, 1993

Lanier, Rebecca A, Associate Professor, MSED, University of Kentucky, 1992

Larabee, Shelley, Instructor, PhD, University of Kentucky, 2008

Lefler, Patricia Sue, Professor, PhD, University of Indiana, 2004

Leon, Ana E, Professor, MS, Jacksonville State University, 2017

London, Rosalind, Instructor, MSN, Frontier Nursing University, 2012

Livingston, Daniel, Assistant Professor, Savannah College of Art and Design, 2016

Long, Jarvis, Instructor, BBA, Eastern Kentucky University, 1974

Lynch, Laura, Assistant Professor, MS, Eastern Kentucky University, 2006

Magee, David A, Professor, MBA, University of Cincinnati, 1981

Marraccini, Patricia, Instructor, MSN, University of Kentucky, 2002

Matcheney, James K, Associate Professor, BS, University of Indiana, 1987

Matthows, Holly, Instructor, MSN, Walden University, 2016

Mayer, Danny, Associate Professor, PhD, University of Kentucky, 2007

Mayo, Karen, Associate Professor, PhD, University of Kentucky, 2015

McCane, Rebecca, Associate Professor, MS, Morehead State University, 1988

McGinnis, Colleen, Assistant Professor, MFA, University of Kentucky, 2013

Miller, Kausha C, Professor, MNS, Northeastern State University, 2000

Miller, Patricia P, Professor, MAEd, University of Kentucky, 1994

Miriti, Linda A, Professor, PhD, University of Louisville, 2014

Motamede, Hossein, Associate Professor, MA, University of Kentucky, 1986

Mullins, Larry McDowell, Associate Professor, MS, Eastern Kentucky University, 1973

Murphy, Donna LJ, Professor, MHE, Morehead State University, 1982

Murphy, William Kevin, Professor, MBA, University of Kentucky, 1991

Ottino, Idahia Aoko, Professor, PhD, University of Kentucky, 2012

Papanicolaou, Thomas, Associate Professor, MS, University of Kentucky, 1994

Partin, Vicki D, Professor, MS, University of Kentucky, 1981

Pelfrey, DeAnna S, Professor, MS, Eastern Kentucky University, 2005

Pelfrey, Holly Joyce, Associate Professor, MSEd, University of Kentucky, 1993

Perry Jr, Clovis C, Associate Professor, MA, Western Kentucky University, 1985

Pevley, Jennifer, Professor, MAEd, Eastern Kentucky University, 2007

Phillips, Erica, Instructor, Biology, Eastern Kentucky University, 2013

Potter, William "Ralph", Assistant Professor, BS, Western Kentucky University, 2014

Puckett, Cheryl L, Associate Professor, MSN, Eastern Kentucky University, 2000

Relliford, LaVetta, Assistant Professor, MSRS, Midwestern State University, 2001

Richardson, Kathleen E, Professor, MALBS, Rosary College, 1983

Rickert, Gregory W, Professor, MA, University of Kentucky, 1992

Riney, Leif E, Associate Professor, MA, Eastern Kentucky University, 2001

Ripley, Michael Bret, Professor, MA, Eastern Kentucky University, 1990

Richey, Stacy, Instructor, DNP, University of Kentucky, 2016

Robert, Danny D, Instructor, AAS, Central Kentucky Technical College, 2004

Robertson, Allan S, Associate Professor, MS, University of Louisville, 2008

Roememele, Lise I, Professor, MSN, State University of New York at Stony Brook, 1997

Rogers, Thomas Foster, Professor, MA, University of Kentucky, 2007

Ross Brown, Kimberly, Associate Professor, MA, University of Nebraska, 1996

Rutherford, Maria, Professor, MA, Regent University, 2006

Saladin, Todd, Instructor, BS, University of Kentucky, 1993

Sallee, Melanie D, Professor, DNP, Eastern Kentucky University, 2017

Sauer, Sara, Assistant Professor, BS, University of Kentucky, 2009

Saunier, Margaret E, Professor, PhD, University of Kentucky, 1987

Schuman, David B, Professor, PhD, University of Kentucky, 2002

Scott Jr, John C, Associate Professor, MA, Eastern Kentucky University, 1990

Shelton, Becky, Assistant Professor, MED, Indiana Wesleyan, 2004

Simms, Ruth A, Professor, MS, Eastern Kentucky University, 1995

Simpson, Zachary, Associate Professor, BHSc, University of Kentucky, 2011

Smith, Virginia Kay, Instructor, MSN, Grand Canyon University, 2017

Smoot, Richard C, Professor, PhD, University of Kentucky, 1988

Snyder, William D, Associate Professor, DMD, University of Kentucky, 1993

Spencer, Janella, Professor, MSEd, University of Kentucky, 1992

Steele, Brian, Instructor, BA, University of Kentucky, 1990

Stone, Steven A, Associate Professor, MSIS, University of Illinois, Urbana-Champaign, 1991

Story, John E, Associate Professor, PsyD, Forest Institute of Professional Psychology, 1991

Strobel, Norman E, Professor, PhD, Cornell University, 1989

Sturdivant, Ty, Associate Professor, MBA, University of Kentucky, 1992

Sturgill, David, Assistant Professor, MA, Eastern Kentucky University, 2018

Sullivan-Davis, Deborah, Associate Professor, PhD, University of Kentucky, 2003

Swango, Kathleen, Professor, MA, Morehead State University, 1982

Sword, Erza, Instructor, MA, University of Texas at Austin, 2008

Thompson, Janie, Professor, MSN, University of Kentucky, 1999

Thrower, Jon, Instructor, MA, Southeast Missouri State University

Todd, Adrienne H, Assistant Professor, MA, Eastern Kentucky University, 1997

Travis, Rebekah, Instructor, AAS, Bluegrass Community and Technical College, 2012

Tucker, Cindy, Professor, MS, University of Kentucky 1999

Turner, Paul A, Professor, MS, University of Kentucky, 2008

Uhuru, Timothy J, Associate Professor, BS, University of Louisville, 1996

Vice, Diana, Assistant Professor, MSN, Northern Kentucky University, 2016

Watts, Jean, Associate Professor, MEM, Duke University, 1987

Webb, Dixie, Assistant Professor, MSN, University of Kentucky, 1977

Webster-Little, Stacy, Associate Professor, MA, University of Nebraska Lincoln, 1996

Wheelan, Yunis, Professor, MA, Campbellsville College, 2008

White, Steven J, Professor, PhD, University of Illinois, 1990

White, Tanya, Associate Professor, MA, University of Kentucky, 1971

Willard, Rust, Instructor, DNP, American Sentinel University, 2018

Williams, Laura A, Associate Professor, MA, Eastern Kentucky University, 1997

Williams, Myra L, Associate Professor, MSN, University of Kentucky, 1991

Williamson, Melanie Gail, Professor, MS, University of Kentucky, 2005

Wilson, Vicki Kegley, Professor, MA, University of Kentucky, 1982

Wiseman, Jackie, Professor, MS, Eastern Kentucky University, 1988

Zeps, Valdis J, Associate Professor, PhD, University of Washington, 1989
Mission Statement/Status of Accreditation

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

Mission Accomplished by providing:

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

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

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

Academic Programs

Transfer Curricula
Associate in Arts
Associate in Science

Occupational/Technical Curricula
Occupational/Technical Curricula: The program listing represents broad groups of instructional programs offered by the college. Individual 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)
Agriculture (C, A)
Air Conditioning Technology (C, D, A)
Apprenticeship Studies (A)
Automotive Technology (C, D, A)
Business Studies:
Administrative Office Technology (C, D, A)
Business Administration Systems (C, D, A)
Medical Information Technology (C, D, A)
Computer Aided Drafting and Design (C, D, A)
Computer and Information Technologies (C, A)
Computerized Manufacturing and Machining (C, D, A)
Construction Technology (C, D, A)
Criminal Justice (C, A)
Culinary Arts (C, D, A)
Diagnostic Medical Sonography (A)
Diesel Technology (C, D, A)
Emergency Medical Technician (C)
Engineering and Electronics Technology (C, D, A)
Fire/Rescue Science Technology (C, D, A)
General Occupational/Technical Studies (A)
Health Science Technology (A)
Human Services (C, A)
Interdisciplinary Early Childhood Education (C, D, A)
Manufacturing Industrial Technology:
  Electrical Technology (C, D, A)
  Industrial Maintenance Technology (C, D, A)
Nursing (A)
Plumbing Technology (C, D, A)
Practical Nursing (C)
Radiography (A)
Real Estate (C)
Respiratory Care (C, A)
Social Media Marketing (C)
Welding Technology (C, D, A)

Contact Information

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

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

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

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

President/CEO
Dr. Juston C. Pate

Provost/Chief Academic Officer
Dr. Tiffany Evans

Chief Student Affairs Officer
Dr. Dale Buckles

Chief Financial Facilities Officer
Brent Holtsclaw

Dean of Business
Kris Wood

Dean of Workforce Development and Technical Programs
Michael Hazzard

Campus Director Springfield/Leitchfield
Darrin Powell

Human Resources Director
Whitney Taylor

Financial Aid Director
Michael Barlow

Public Relations Director
Mary Jo King

Cultural Diversity Director
Noel Helm

Information Technology Director
Chris Lee

Educational Excellence Director
Pat Harper

Institutional Effectiveness Coordinator
Sarah Edwards

Distance Learning
Gwyn Sutherland

Division of Fine Arts & Humanities
Jacqueline Hawkins

Division of Biological & Health Sciences
Lois Chandler-Cousins

Division of Physical Sciences
Shawn Kellie

Division of Social & Behavioral Sciences
Ramona Barrow

Faculty

Barrow, Ramona, Associate Professor, MS, Strayer University, 2004

Beauchamp, Cheryle, Associate Professor, MBA, DeVry University, 2008

Blanks, Rhonda, Associate Professor, MSN, University of Phoenix, 2010

Bradley, Joseph, Instructor, PhD, University of Louisville, 2018

Bratcher, Tracy Renea, Professor, MA, Western Kentucky University, 1998

Brookman, Douglas W, Associate Professor, AAS/AAT, Elizabethtown Technical College, 2000

Brown, Charles J, Professor, MBA, University of Louisville, 1969

Brown, Margaret, Associate Professor, MA, Western Kentucky University, 2007

Brown, Shawn, Associate Professor, MS, Northern Kentucky University, 2014

Burns, Erin, Instructor, BS, Morehead State University

Cameron, Sandra W, Professor, ME, University of Louisville, 2007

Cantrell, Douglas E, Professor, MA, University of Kentucky, 1985

Cantrell, Lisa A, Professor, MA, Morehead State University, 1986

Chandler-Cousins, Lois, Associate Professor, MED, University of North Carolina, 1997

Chism, John, Associate Professor, AAS, Elizabethtown Community & Technical College, 2002

Clemons, Jerry L, Professor, MS, Eastern Kentucky University, 2010

Cole, William, Professor MS, Murray State University, 2001

Condiff, Sara E, Associate Professor, MAE, Western Kentucky University, 2007

Cooper, Yavalla K, Assistant Professor, MS, Delta State University, 2012

Cordova, Timothy M, Professor, MA, Midwestern State University, 2002

Coulston, Charles, Associate Professor, MS, University of Kentucky, 2006

Counts, Gideon John, Instructor, AAS, Elizabethtown Community & Technical College, 2017

Coy, Julie S, Professor, MAE, Western Kentucky University, 1998

Csonka, Thomas Allen, Assistant Professor AAS, Elizabethtown Community & Technical College, 2013

Davis, John D, Associate Professor, PhD, University of Kentucky, 2003

Dile, Beverly, Professor, MA, Western Virginia University, 1984

Dixon, Lucinda, Associate Professor, DVM, Auburn University, 2010

Doty, Brent Morgan, Professor, MA, Western Kentucky University, 2003

Drucen, Joshua William, Associate Professor, Morehead State University, 2012

Dryden, John, Associate Professor, PhD, University of Louisville, 2013

Edwards, Sarah, Associate Professor, MS, Walden University, 2007

Eicher, Katrina M, Professor, MA, University of Nebraska, 1989

Embry, Robin D, Professor, MSN, University of Louisville, 1994

Faherty, Erin G, Instructor, MA, Northern Illinois University, 1992

Fox-Angerer, Amy, Assistant Professor, MFA, Spalding University, 2009

Gabelhart, Stephen, Associate Professor, AS, Western Kentucky University, 2008

Galloway, Joseph, Associate Professor, MA, Western Kentucky University, 2005

Glawding, Martha J, Professor, MSN, University of Louisville, 1989

Hamilton, Anna, Assistant Professor, MA, St. Catharine College, 2014

Hampton, Julie R, Instructor, BS, Walden University, 2017

Haque, Khondaker E, Professor, MA, University of Pittsburgh, 1981

Harper, Pamela, Professor, MA, SCT, Murray State University, 1980

Harris, Robert L, Professor, MA, Western Kentucky University, 1975

Hasty, Heidi Salena, Instructor, AAS, Elizabethtown Community & Technical College, 2014

Hawkins, Jacqueline, Professor, MA, Florida State University, 2006

Hazzard, Michael W, Professor, BS, Western Kentucky University, 2007

Henderson, JoNell, Assistant Professor, MBA, Amberton University, 1989

Hicks, McLeah Dyer, Professor, MA, Western Kentucky University, 1994

Higdon, Rebecca, Professor, MS, University of Louisville, 2011

Hines, Brian A, Instructor, MS, Morehead State University, 2016

Holman, Richard, Associate Professor, MBA, Georgia State University, 1976

Hornback, Mary C, Professor, MA, Western Kentucky University, 1989

Howard, Linda G, Professor, MAE, Western Kentucky University, 1980

Johnson, Cyril, Associate Professor, BS, Western Kentucky University, 2006

Kelley, Lawrence, Associate Professor, MA, University of Memphis, 2006

Kelle, Shawn A, Professor, PhD, University of Louisville, 2005

Kennedy, Kevin, Professor, MA, Indiana University, 1996

Kroll, Daniel, Associate Professor, AAS, Elizabethtown Community & Technical College, 2008

Likins, Stephen S, Associate Professor, AS, Western Kentucky University, 1999

Lively, Deena, Associate Professor, MA, University of Louisville, 2009

Lindsay, Rebecca, Instructor, BS, University of Missouri-Kansas City, 2012

Lloyd, Daniel Montgomery, Associate Professor, MS, Eastern Illinois University, 1998

Logsdon, Charles G, Professor, MA, University of Louisville, 1999

Low, Robert Alan, Professor, AAS, Elizabethtown Technical College, 2010

MacKellar, Laurie A, Professor, Librarian I, MLS, University of Kentucky, 1992

Madars, Navin, Associate Professor, MS, Marquette University, 2001

Mallard, Jamie, Instructor, BS, Eastern Kentucky University, 2002

Massaroni, Nolan, Instructor, AAS, Community College of the Air Force, 1995

McFalls-Smith, Tiffany, Associate Professor, MS, Southeastern Louisiana University, 2004

Meredith, Rosemary L, Professor, BS, University of Louisville, 1995

Metzger, Revel I, Professor, MA, Western Kentucky University, 1999

Meyer, Callista, Associate Professor/ Librarian II, MLS, University of Kentucky, 2007

Mihalos, Michael, Assistant Professor, MS, University of Maine, 2007

Nail, Joe J, Professor, BS, University of Louisville, 2000

Nason, Dean W, Associate Professor, MA, Western Kentucky University, 1979

Nusbaumer, David D, Associate Professor, MA, University of Montana, 1992

Owens, Johnny, Professor, MA, Western Kentucky University, 1986

Owsley, Wanda D, Professor, PhD, University of Louisville, 2009

Page, Martha, Associate Professor, MS, Vanderbilt University, 1979

Parrett, Kevin, Associate Professor, MS, Sullivan University, 2005

Pate, Fredericka Susie, Professor, AS, Sullivan University, 1995

Pate, Lloyd, Associate Professor, AAS, Elizabethtown Technical College, 2003

Potetz, Gordon D, Associate Professor, AS, Western Kentucky University, 1997

Puckett, Thomas Lee, Instructor, AAS, Elizabethtown Community & Technical College, 2010

Raizor, Glenn, Associate Professor, AAS, Elizabethtown Community & Technical College, 2005

Ray, Rachel, Associate Professor, MA, Indiana University, 2005

Rhinehart, Andrew, Instructor, PhD, University of Kentucky

Rigney, Mary Alisa, Associate Professor, MA, Western Kentucky University, 2001

Rivera, Jeffrey, Professor, AAS, El & Technical College, 2005

Roberts, Phillip, Associate Professor, MBA, University of Phoenix, 2011

Schorr, James E, Professor, EdD, Northern Illinois University, 1994

Slone, Anthony, Associate Professor, MBA, Ashland University, 2001

Smith, Benjamin, Instructor, BS, Eastern Kentucky University

Spalding, Jared C, Professor, BS, Western Kentucky University, 2002

Spratt, Sharon I, Professor, MA, Western Kentucky University, 1989

Stearns, Gary M, Professor, PhD, University of Kentucky, 1990

Sutherland, Marty L, Professor, BS, Southern Illinois University, 1996

Thomas, Dora Kay, Professor, AAS, Elizabethtown Technical College, 2005

Towell, Elizabeth G, Professor, MA, University of Kentucky, 1995

Valora, Joseph Lee, Assistant Professor, AAS, Elizabethtown Community & Technical College, 2013

Waldron, John, Associate Professor, Ph.D, Texas A & M University, 2002

Wicks, Edward, Assistant Professor, MS, Syracuse University, 2001

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

Winchester, Charles, Instructor, MS, Western Kentucky University

Wolf, Joe, Associate Professor, PhD, University of Kentucky, 1997

Wolfe, Martha T, Professor, MS, University of Kentucky, 1978

Wright, Miky, Assistant Professor, MS, Western Kentucky University, 2015

Yates, Jennifer, Assistant Professor, MS, Western Kentucky University, 2012

Young, Cody, Associate Professor, AAS, Bluegrass Community & Technical College, 2004
Mission Statement/Status of Accreditation
Gateway Community and Technical College provides high quality, affordable, accessible, and inclusive postsecondary education and training resulting in a positive contribution to the economic vitality of the region and enhanced quality of life for all citizens.

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

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

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

Academic Programs

Transfer Curricula
Associate in Arts
Associate in Science

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

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

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

Boone Campus
500 Technology Way
Florence, KY 41042

Edgewood Campus
790 Thomas More Parkway
Edgewood, KY 41017

Urban Metro Campus
516 Madison Avenue
Covington, KY 41011

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

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

Faculty

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

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

Hazard Community and Technical College is a member of the Kentucky Community and Technical College System serving the needs of Southeastern Kentucky.

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

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

Academic Programs

Transfer Curricula

- Associate in Arts
- Associate in Science

Occupational/Technical Curricula

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

- Advanced Integrated Technology (C)
- Agricultural Technology (C)
- Air Conditioning Technology (C, D)
- Automotive Technology (C, D, A)
- Business Communications (C)
- Business Studies:
  - Business Administration Systems (C, D, A)
  - Medical Information Technology (C, D, A)
- Computer Aided Drafting and Design (C, D)
- Computer and Information Technologies (C, A)
- Construction Technology (C, D)
- Cosmetology (C, D)
- Criminal Justice (C, A)
- Diagnostic Medical Sonography (A)
- Diesel Technology (C, D)
- Emergency Medical Services – Paramedic (C)
- Fire/Rescue Science Technology (C, A)
- General Occupational/Technical Studies (A)
- Health Care Foundations (C)
- Health Care Specialist (C)
- Health Information Technology (C, A)
- Heavy Equipment Operation (C, D)
- Human Services (C, A)
- Interdisciplinary Early Childhood Education (C, D, A)
- Manufacturing Engineering Technology (A)
- Manufacturing Industrial Technology:
  - Electrical Technology (C, D)
- Medicaid Nurse Aide (C)
- Medical Assisting (C, D, A)
- Medical Laboratory Technology (C)
- Nursing (A)
- Physical Therapist Assistant (A)
- Practical Nursing (D)
- Professional Studio Artist (C, D, A)
- Radiography (C, A)
- Surgical Technology (A)
- Surveying & Mapping Technology (C)
- Telehealth Technician Associate (C)
- Truck Driver Training (C)
- Unmanned Systems Technology (C, A)

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

Contact Information

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

Hazard Campus
One Community College Dr.
Hazard, KY 41701
Technological 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
Assistant to the President
Chief Academic Officer
Vice President of Student Services
Chief Business Services Officer
Chief Information Officer
Senior Director of Human Resources
Director of Workforce
Dean of Operations
Public Relations Coordinator
Dean of Allied Health Science Technologies
Dean of Computer and Online Technologies
Dean of Heritage and Humanities
Dean of Sciences, Mathematics and KSBTM
Dean of Occupational Technologies
Dean of Retention Services

Faculty

Abney, Rebekah E, Assistant Professor, BSN, Eastern Kentucky University, 2017
Adams, Douglas D, Professor, AAS, Hazard Technical College, 2002
Back, Tony, Professor, MS, Eastern Kentucky University, 2012
Barnes Jr, Donald R, Professor, MS, Oklahoma State University, 1992
Boothe, Jenna L, Associate Professor, DNP, Western Kentucky University, 2015
Bowlin, Virgil L, Instructor, University of the Cumberlands, 1997
Bowling, Randy L, Assistant Professor, 48 years Teaching Experience, 29 years Occupational Experience
Bowling, Tracy L, Professor, DPT, University of Kentucky, 2010
Brannon, Cathy A, Professor, Librarian II, MSLS, University of Kentucky, 2005
Brunty, Helen F, Professor, MSW, University of Kentucky, 2000
Bryant, Jeremiah, Professor, MA, Morehead State University, 2000
Bryant, Randall K, Professor, MA, West Georgia College, 1988
Caudill, Jimmy D, Professor, Diploma, Hazard Technical College, 1987
Clemens, Mavis, Assistant Professor, MS, Eastern Kentucky University, 2010
Collins, Gwendolyn, Professor, MSN, University of Kentucky, 1982
Combs, Jerry M, Professor, MA, Morehead State University, 2011
Cornett, Willie, Associate Professor, AAS, Hazard Community and Technical College, 2009
Couch, Melissa, Associate Professor, BS, Morehead State University, 2012
Cravens, Thomas L, Assistant Professor, MS, University of Kentucky, 1989
Currie, Paul B, Professor, DVM, University of Georgia, 2000
Davidson, Gwendolyn, Assistant Professor, MS, Morehead State University, 2014
Davis, Tammy A, Assistant Professor, MHA, Western Kentucky University, 2018
Dunn, Timothy J, Professor, MA, University of Kentucky, 1989
Flannery, Madeline K, Professor, MA, Columbia University, 1986
Francis, Sam W, Professor, PhD, University of Kentucky, 1998
Frazier, David L, Professor, MBA, Morehead State University, 1998
Frazier, Misty, Assistant Professor, MSW, University of Kentucky, 2011
Fugate, Renee Tabor, Professor, MS, University of Kentucky, 1993
Gilson, Diane A, Associate Professor, MS, Louisiana Tech University, 2009
Globig, Sabine A, Professor, MS, Rutgers University, 1988
Hagans-Shepherd, Ludrenia Sue, Professor, MSN, Eastern Kentucky University, 2000
Herald, Patricia Ann, Professor, DSN, University of Alabama, 1993
Holl, Richard E, Professor, PhD, University of Kentucky, 1996
Holliday, Charmoin, Instructor, AAS, Hazard Community and Technical College, 2014
Howard, Arzella W, Associate Professor, MSN, University of Phoenix, 2008
Howard, Cluster C, Professor, MA, Morehead State University, 1983
Hudson, Evelyn, Instructor, Librarian IV, MS, University of Kentucky, 2015
Ingram, Danny M, Professor, BS, Eastern Kentucky University, 2008
Johnson, 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, Associate Professor, 26 years Occupational Experience
Lucero, Scott C, Professor, MA, University of Kentucky, 1992
Lutes, Jennifer, Assistant Professor, MA, Morehead State University, 2010
Maggard, Wilma, Assistant Professor, Certificate, Hazard Community and Technical College, 2003
Martin, Christina R, Professor, MSN, Eastern Kentucky University, 2009
Martin, Joanna H, Associate Professor, Diploma, Cumberland Valley Technical College, 1999
May, Scott R, Professor, MS, Indiana State University, 1990
Medlin, Rex, Lecturer, MS, Arkansas State University, 2007
Mobelini, Deronda C, Professor, Ed. D., University of Kentucky, 2012
Moon, Randall B, Professor, PhD, University of California at Riverside, 2000
Napier, Samuel Scott, Assistant Professor, 21 years Teaching Experience, 20 years Occupational Experience
Neace, Shaun, Instructor, AAS, Hazard Community and Technical College, 2003
Neace, Thomas D, Professor, MA, Eastern Kentucky University, 1996
Niece, Ralph D, Instructor, 23 years Occupational Experience
Osborne, Norman Dean, Instructor, 34 years Teaching Experience, 30 years Occupational Experience
Pennington, Beth Ann, Associate Professor, Ed. D., Morehead State University, 2013
Petrey-Ilandau, 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 Juana, Professor, Diploma, East Kentucky Beauty College, 1998
Smith, Leila Sandlin, Professor, MBE, Morehead State University, 1987
Smith, Penny, Assistant Professor, MA, University of Kentucky, 1992
Smith, Walter, I Assistant Professor, MS, University of Cincinnati, 2007
Spear, April J, Instructor, MS, Eastern Kentucky University, 2008
Spencer-Barnes, Amanda G, Associate Professor, MA, Morehead State University, 2007
Stamper, Vera Dawn, Associate Professor, DPT, University of Kentucky, 2011
Strong, Ella J, Professor, Ed. D., University of Kentucky, 2011
Sturgill, Sherri M, Instructor, AAS, Hazard Community and Technical College, 2012
Swafford, Bryan, Associate Professor, BA, Alice Lloyd College, 2000
Terry, Homer, Professor, MS, Eastern Kentucky University, 2004
Turner, Tina, Instructor, BSN, Indiana Wesleyan, 2016
Vergne, Stephanie I, Professor, MA, Morehead State University, 2001
Wernette, Amy S, Professor, MS, University of Michigan, 1996
Whittaker, Timothy, Professor, BS, Midwestern State University, 2005
Williams, Jenny D, Professor, MA, University of Kentucky, 1992
Wireman, April Graham, Instructor, MA, Eastern Kentucky University, 2005
Wood, Jeremy R, Professor, MS, University of Tennessee, 1993
Henderson Community College

Mission Statement/Status of Accreditation

The mission of Henderson Community College is to enhance the quality of life and employability of our community by serving as the leading provider of:

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

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

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

Academic Programs

Transfer Curricula
- Associate in Arts
- Associate in Science

Occupational/Technical Curricula

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

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

Contact Information

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

General Information

Welcome Center (270) 827-1867 or (800) 696-9958
Admissions 1-855-GO-HCC44 (855-464-2244)
Advancement (270) 831-9626
Advising (270) 831-9610
Assessment Center (270) 831-9783
Business Office 1-855-GO-HCC44 (855-464-2244)
Continuing Education (270) 831-9847
Disability Services (270) 831-9783
Financial Aid 1-855-GO-HCC44 (855-464-2244)
Human Resources (270) 831-9617
Library (270) 831-9760
Orientation (270) 831-9607
Public Relations (270) 831-9805
Records 1-855-GO-HCC44 (855-464-2244)
Technology Solutions Help Desk (270) 831-9616
Transfer Information (270) 831-9828
Veterans Affairs (270) 831-9627
Workforce Solutions (270) 831-9847

Administration

President and CEO Dr. Jason Warren
Provost Dr. Reneau Waggoner
Chief Business Officer Ms. Christina Stinson
Chief Advancement Officer Ms. Jennifer Preston
Director of Cultural Diversity Mr. William L. Dixon
Director of Human Resources
Director of Knowledge Management Mr. Brian McMurtry
Director of Preston Arts Center Mr. Eric Kerchner
Chair, Allied Health Division Dr. Carole Mattingly
Chair, Liberal Arts and Professional Studies Division Ms. Sharon Burton
Chair, STEM Division Mr. Barry Phelps
Associate Dean for Student Services Mr. Cary Conley
Director of Nursing Dr. Lori Donahoo
Director of Library and Tutor Services Mr. Mike Knecht

Faculty

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

Mission Statement/Status of Accreditation

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

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

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

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

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

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

Academic Programs

Transfer Curricula

- Associate in Arts
- Associate in Science

Occupational/Technical Curricula

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

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

Contact Information

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

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

General Information

(270) 707-3700

Admissions
- Larissa Horn
  (270) 707-3813
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
  (270) 707-3729
Career and Transfer Services
- Kanya Allen
  (270) 707-3827

1-855-22GO-HCC (1-855-224-6422)
Workforce Solutions  
Carol Kirves  
(270) 707-3750

Disability Services  
(270) 707-3801

Distance Learning Support  
Bob Smith  
(270) 707-3892

Financial Aid  
Janet Gunther  
(270) 707-3833

Human Resources  
Yvonne Glasman  
(270) 707-3722

International Student Services  
Mrs. Angel Prescott  
(270) 707-3801

Library  
Ann Nichols  
(270) 707-3762

Public Relations and Marketing  
Rena Young  
(270) 707-3732

Records/Registrar  
Titannie Witt  
(270) 707-3811

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

Transfer Information Liaison  
Kanya Allen  
(270) 707-3827

Veterans Affairs  
Angie Goode  
(270) 707-3957

Information Technology  
Tony Nelson  
(270) 707-3771

Fort Campbell Campus  
Mrs. Alicia Lee  
(270) 707-3958

Administration

President/CEO  
Dr. Alissa Young  
(270) 707-3809

Chief Academic Affairs Officer (Interim)  
Mr. James T. Hunter  
(270) 707-3827

Chief Student Affairs Officer  
Mrs. Angel Prescott  
(270) 707-3957

Chief Business Affairs Officer  
Dr. Dale Leatherman  
(270) 707-3771

Chief of Community, Workforce and Economic Development  
Mrs. Carol Kirves  
(270) 707-3750

Chief of Institutional Advancement  
Mrs. Yvette Y. Eastham  
(270) 707-3801

Fort Campbell Campus Director  
Mrs. Allisha Lee  
(270) 707-3892

Division of Allied Health  
Dr. Elizabeth Beverly  
(270) 707-3833

Division of Liberal Arts & Social Sciences  
Mrs. Julia Laffoon-Jackson  
(270) 707-3722

Division of Mathematics and Sciences  
Mr. Ted Wilson  
(270) 707-3801

Division of Nursing  
Mrs. Joyce Lambruno  
(270) 707-3833

Division of Professional and Technical Studies  
Mr. Arthur Pendleton  
(270) 707-3958

Faculty

Akpm, Reginald C, Associate Professor, PhD, Southern Illinois University, 2013

Anderson, Brian, Instructor  
Anderson, Danny L, Assistant Professor, BSN, Austin Peay State University, 2013

Arnold, Jason E, Professor, MS, Murray State University, 2008, MS, Southern Illinois University at Carbondale, 1997

Aussenbaugh, Yasamin, Instructor, MA, Western Kentucky University, 2005

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

Bexton, Justin Dale, Associate Professor, MA, Ohio University, 2002

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

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

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

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

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

Core, Dale, Instructor, AAS, KCTCS - Hopkinsville Community College, 2014

Cummins, Christopher Mark, Assistant Professor, MS, The University of Tennessee Knoxville, 2013

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

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

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

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

Folz, Julie, Instructor, AAS, KCTCS - Hopkinsville Community College, 2008

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

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

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

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

James, Addison, Instructor, MA, Western Kentucky University, 2015

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

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

Larkin, Vernell D, Professor, EdD, University of Kentucky, 2001

Lee, Jason, Assistant Professor, MS, Murray State University, 2014

Lemons, Sherry L, Professor, MS, Austin Peay State University, 1994

Loggins, Nicole L, Instructor, MSN, Vanderbilt University, 2013

Lutz, Roger, Associate Professor, AAS, KCTCS - Hopkinsville Community College, 2004, Certification, CFPIHM and CFPIHT, 2001

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

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

Meade, Beth, Assistant Professor, DNP, University of Kentucky, 2017

Meador, Barbara W, Professor, MA, Austin Peay State University, 1978

Nichols, Linda A, Professor/CC Library Services Director, MA, University of Louisville, 2006, MLIS, University of Kentucky, 2000

Offutt, Cynthia Whitsett, Instructor, MSN, Chamberlain College of Nursing, 2013

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

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

Pullen, Sherri, Assistant Professor, MSN, University of Southern Indiana, 2017

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

Revellett, Rita Denise, Instructor, MSN, Chamberlain College of Nursing, 2017

Riley, Patrick J, Professor, MA, University of Missouri, 1997

Sandifer, Dana R, Professor, MSN, Murray State University, 1996

Sauter, Leah M, Professor, MA, Gannon University, 1993

Schultz, Arthur Ray, Associate Professor, MS, Tennessee State University, 2009

Scott, Deloria A, Professor/CC Counselor, MS, Murray State University, 1996

Sims, Derek, Associate Professor, MBA, Murray State University, 2011, MS, Southern Illinois University, 2007

Smith, Robert William, Associate Professor, MAE, Marian University, 2009

Stone, Abbey L, Assistant Professor, BS, Indiana Wesleyan University, 2013

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

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

Wingate, Matthew, Instructor, BSN, American Military University, 2015

Worley, Brenda, Instructor, EdD, Northcentral University, 2019

Young, Alissa L, Professor, EdD, University of Kentucky, 2013, MS, Murray State University, 1992

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

Mission

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

Values

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

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

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

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

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

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

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

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

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

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

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

Academic Programs

Transfer Curricula

- Associate in Arts
- Associate in Science

Occupational/Technical Curricula

- African American Studies (C)
- Air Conditioning Technology (C, D)
- Applied Process Technologies (C, D, A)
- Apprenticeship Studies (A)
- Automotive Technology (C, D, A)
- Aviation Maintenance Technology (C, D, A)
- Business Studies:
  - Administrative Office Technology (C, D, A)
  - Business Administration Systems (C, D, A)
  - Medical Information Technology (C, D)
  - Computer Aided Design and Drafting (C, D)
  - Computer and Information Technologies (C, A)
  - Computerized Manufacturing and Machining (C, D)
  - Construction Technology (C, D)
- Cosmetology (C, D)
- Criminal Justice (A)
- Culinary Arts (C, A)
- Education (A)
- Emergency Medical Services – Paramedic (C, A)
- Emergency Medical Technician (C)
- Engineering and Electronics Technology (C, D, A)
- Fire/Rescue Science Technology (C, D, A)
- General Occupational/Technical Studies (A)
- Geospatial Technology (C)
- Global Studies (C)
- Health Information Technology (C, A)
- Health Science Technology (A)
- Historic Preservation Technology (C)
- Human Services (C, A)
- Industrial Chemical Technology (A)
- Insurance and Risk Management (C)
- Interdisciplinary Early Childhood Education (C, A)
- Invasive Cardiology (C)
- Manufacturing Industrial Technology:
  - Electrical Technology (C)
  - Industrial Maintenance Technology (C, D, A)
- Mechatronics (C)
- Medical Administrative Services (C)
- Medical Assisting (C, D, A)
- Medical Laboratory Technology (C, A)
- Multi-skilled Systems Technician (C)
- Nursing (A)
- Occupational Therapy Assistant (A)
- Pharmacy Technology (C, D)
Couch, Kristi, Instructor, BS, Indiana University, 2000
Cox, Jennifer, Instructor, M.A., Criminal Justice, University of Louisville, 2007
Cummins, Deloris J, Associate Professor, DPT, University of Montana, 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
Dearing, Laura A, Professor, MFA, University of Memphis, 1998
Deedle, Nina R, Professor, MSLS, University of Kentucky, 1994
DiNoto Jr, Vincent A, Professor, MA, Indiana State University, 1979
DiPaola, Stephen, Professor, BS, Johnson & Wales University, 1994
Dixon, Shaun, Instructor, M.A., University of Louisville
Douglas, Jessica, Instructor, M.S. Nursing, Capella University, 2017
Ecker, David P, Associate Professor, PhD, University of Kentucky, 1991
Edgar, Brenda, Associate Professor, MA, University of Pittsburgh, 1997
Eichholz, Lisa A, Associate Professor, MLS, Syracuse University, 1992
Eiden, Laurie A, Professor, MS, University of Louisville, 2003
Ellis, Tiane, Instructor, M.A., Mathematics, Fayetteville State University, 2014
Elmes, Brandon, Assistant Professor, MEng, University of Louisville, 2011
Estes, Michael, Instructor, MFA, University of Notre Dame, 2005
Frame, Stephen, Instructor, AAS, Santa Fe College
Florencio, Anisa R, Associate Professor, MA, University of Louisville, 2001
Fleming, Paul A, Associate Professor, MS, University of Louisville, 1995
Galyon, Mark A, Associate Professor, MEd, University of Idaho, 1993
Gamble, Grant, Associate Professor, BST, Pittsburgh State University, 1995
Garrett, Mary Beth, Instructor, RN, Kentucky State University, 1997
Gibson, Maureen, Associate Professor, MS, Western Kentucky University, 1990
Gittings, Jennie M, Associate Professor, MSN, University of Louisville, 1992
Goldsby, Luann M, Professor, MS, North Texas State University, 1983
Gonzalez, Orlando, Associate Professor, MS, University of Cincinnati, 2001
Gracy, Christopher M, Professor, MA, University of Virginia, 1990
Gummer, Rhonda D, Professor, MSW, University of Louisville, 2002
Handel, J., Instructor, A.A. Applied Science, JCTC, 2009
Hanson, Richard H, Associate Professor, PhD, University of Kentucky, 1996
Hatfield, Todd, Instructor, 20 years teaching experience, 25 years occupational experience
Heiden, Nathaniel James Joseph, Instructor, Airframe/Powerplant Mechanic
Higgins, Linda C, Professor, MEd, University of Louisville, 1996
Howard, Chad, Associate Professor, MS, University of Kentucky, 2003
Hubrich, Charlotte Hammett, Associate Professor, MFA, University of Louisville, 1987
Huskey, Patricia, Instructor, M.S. Indiana Welseyan University
Inge, Grant, Instructor, Mini University, Level I Auto Tech Mechanic
Jackson, Mary B, Professor, MA, Western Kentucky University, 1990
Jacob, Sherry E, Associate Professor, MBA, Webster University, 2002
Johnson, Gerald R, Professor, MS, Eastern Kentucky University, 1989
Johnson, Rafe A, Professor/Library I, MLS, University of Kentucky, 1990
Jones, Melvin D, Professor, MM, Western Kentucky University, 1979
Jost, Bruce E, Professor, PhD, University of Louisville, 2008
Karcher, Mickie, Professor, MA, Western Kentucky University, 1993
Karim, M.D., Jahurul, Associate Professor, PhD, University of Liverpool, 1988
Keller, Mary Beth, Instructor, MS, Grand Canyon University, 2018
King, Dallas, Assistant Professor, AAS, Jefferson Community and Technical College, 2016
Knight, Kronda, Instructor, M.A. Psychology, Saybrook University, 2013
Kutnicki, Faith H, Associate Professor, MS, University of Kentucky, 1972
LaFerriere, Martha, Professor, PhD, University of Louisville, 2015
Langness, Betsy, Professor, MEd, University of Louisville, 1995
Larkin, Pamela B, Professor, MAT, University of Louisville, 1992
Larson, Douglas, Associate Professor, MS, University of Louisville, 1998
Lawrence, Lindsey J, Professor, BGS, Indiana University-Southeast, 2001
Lawson, Arlene, Instructor, B.S. Nursing, Kent State University, 2005
Leasor, James, Assistant Professor, AAS, Elizabethtown Community and Technical College, 2015
Leonard, Mona F, Professor, MA, Howard University, 1989
Lee, Susan, Instructor, PhD, St. Louis University, 2017
Leckie, Jamie, Instructor, PhD, Pediatrics, University of Louisville, 2008
Leslie, Lyn, Assistant Professor, MEd, Western Kentucky University, 1989
Lewis, Marc, Instructor, B.A., Appalachian State University
Lichtsteiner, Joshua, Instructor, Assistant Professor, Trade Schools
Liebert, Amy, Instructor, M.A. San Francisco State University, 2009
Limberry, John W, Associate Professor, MA, Ball State University, 1989
Lites, William W, Professor, PhD, Southern Baptist Theological Seminary, 1991
Long, John P, Professor, MS, University of Kentucky, 1988
Lotz, Anne, Professor, MA, Kent State University, 1999
Lowrey, Kathryn E, Associate Professor, PhD, University of Louisville, 2010
Lutz, Terry W, Professor, MFA, University of Kentucky, 1984
Lyalina, Victoria, Associate Professor, MA, University of Louisville, 2000
Lynch, Katie, Instructor, PhD, Biology, University of Louisville, 2016
Malan, Kyle, Instructor, Licensed Respiratory Therapist
Malone, Mary E, Professor, MA, MSN Spalding University, 1982, 1987
Mangum, David, Associate Professor, MA, Murray State University, 2006
Matheny, Meg, Professor, MA, University of Kentucky, 1999
Mattingly, Diane, Assistant Professor, MA, Western Kentucky University, 2011
Mattingly Jr, Robert A, Professor, MS, University of Louisville, 1990
May, Margaret, Instructor, Registered Respiratory Therapist, 2015
McCrobie, Bradley, Instructor, M.S. Nursing, Indiana Wesleyan University
McKinley, Dallas, Instructor, RN, Kent State University, 1997
McNeil, Marilyn D, Professor, MSN, University of Louisville, 1990
Miller, Darla Faye, Associate Professor, MED, University of Louisville, 2004
Miller, Donna R, Assistant Professor, MA, University of Louisville, 2007
Mohr, April L, Professor, MA, Florida Atlantic University, 1990
Mollette, Nancy R, Associate Professor, MLS, University of Kentucky, 1980
Montgomery, Jonathan, Instructor, Indiana University of Pennsylvania, 2016
Morris, Nicholas, Instructor, Universal Technical Institute, 2004
Motes, John B, Professor, MFA, University of Tennessee, 1989
Muller, Kaya, Associate Professor, MS, Purdue University, 1999
Norfleet, Ronn, Associate Professor, MDiv, Southern Baptist Theological Seminary, 1989
O'Brien, Nicholas B, Instructor, AAS, Jefferson Community and Technical College, 2012
Pack, Don, Professor, EdD, University of Louisville, 1999
Peters, Jane, Associate Professor, PhD, University of Kentucky, 2005
Peters, Barry, Instructor, MS, Engineering Management, Marshall University, 2015
Phillips, Greg, Assistant Professor, AAS, Jefferson Community and Technical College, 2012
Pillitteri, Gerald J, Assistant Professor, AAS, Jefferson Community & Technical College, 2012
Pitchford, Jennifer, Assistant Professor, BS, University of Evansville, 1997
Prather, Mark C, Associate Professor, BA, Indiana University, 1989
Pruett, Stephen R, Professor, PhD, University of Louisville, 1997
Rasras, Awad R, Associate Professor, MA, University of Kansas, 1985
Reinser, Caroline, Assistant Professor, MS, Eastern Kentucky University, 2007
Repper, Frank, Associate Professor, MM, Eastern Kentucky University, 1983
Richard, Amanda, Associate Professor, MS, Texas A&M, Mathematics, 2011
Riedel, Donna D, Associate Professor, MS, University of Massachusetts, 1987
Riedling, Robert L, Professor, MS, University of Louisville, 1997
Riggs, William, Instructor, Fiat Chrysler Training Institute, 2016
Rodski, Peter A, Professor, PhD, Eastern Kentucky University, 1992
Rudolph, Sonia R, Associate Professor, MSN, Spalding University, 2003
Savels, Constance, Instructor, MPH, Ohio State University, 2003
Schottner, Kara, Assistant Professor, MPA, University of Louisville, 2012
Scott, Chad, Instructor, Emergency MedTech, Licensed Selvage, Kelli, Instructor, MSN, RN, CNÉ, Chamberlain College of Nursing, 2014
Sellars, Telly R, Professor, EdD, Spalding University, 2006
Sexton, Gerald, Instructor, BT, Jacksonville State University, 1990
Smith, Rufus, Instructor, Master HVAC, 2016
Smithy, Pamela, Associate Professor, MS, Quinnipiac University, 2011
Snook, Stephen, Instructor, AAS, Jefferson Community and Technical College, 2004
Sprinkle, Amy C, Professor, MS, University of Kansas, 1986
Stewart, Amelia, Professor, PhD, Ohio University, 1987
Stewart, James H, Associate Professor, MS, Western Kentucky University, 1991
Taylor, Stacy, Associate Professor, MA, University of Louisville, 1999
Thomas, Leonard, Instructor, MA, University of Louisville, 2010
Tiller, Donald, Instructor, 32 years experience in industry
Tomczak, Doreste A, Instructor, Assistant Professor, MA Eastern Illinois University, 1996
Tren, Lishi T, Associate Professor, MS, Western Kentucky University, 2004
Vogel, David M, Associate Professor, PhD, University of Louisville, 2002
Ward, John, Associate Professor, MBA, University of Louisville, 2000
Watters, Keith B, Instructor, Certification in FAA Airfram and Powerplant
Wechter, Bree, Associate Professor, MA, Eastern Illinois University, 2002
Wheat, Valerie J, Associate Professor, PhD, University of Cincinnati College of Medicine, 2001
White, Deborah C, Professor, MSN, University of Kentucky, 1982
Wilburn, Mark S, Professor, PhD, Ohio University, 1987
Wilkerson, Andrew, Assistant Professor, MS, University of Nebraska, 2010
Williams, Lawrence, Instructor, Instructor, PhD, Capella University, 2013
Williams, Sheree Huber, Professor, MLS, University of Kentucky, 1981
Wright, Mark, Professor, MEng, University of Louisville, 1992
Yocum, Heather L, Assistant Professor, MA, Northern Kentucky University, 2010
Young, Tiffany, Instructor, M.A., English, Florida State University, 2007

Correctional Sites

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

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

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

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

Pewee Valley (KCIW)*

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

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

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

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

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

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

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

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Academic Programs

Transfer Curricula

Associate in Arts
Associate in Science

Occupational/Technical Curricula

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

Advanced Integrated Manufacturing (C)
Advanced Integrated Technology (C, A)
Agriculture (C, D, A)
Air Conditioning Technology (C, D, A)
Automotive Technology (C)
Biomedical Technology Systems (A, C)
Business Studies:

Business Administration Systems (C, D, A)
Medical Information Technology (C, D, A)
Supply Chain Management (C)
Certified Medical Technician (C)
Computer and Information Technologies (C, A)
Computerized Manufacturing and Machining (A)
Criminal Justice (C, A)
Emergency Medical Services – Paramedic (C, A)
Energy Management (C, D, A)
Engineering Related – Project Lead the Way (PLTW) (C)
Fire/Rescue Science Technology (C, D, A)
General Occupational/Technical Studies (A)
Health Science Technology (A)
Health Care Specialist (C)
Human Services (C, A)
Interdisciplinary Early Childhood Education (C, D, A)
Manufacturing Industrial Technology:

Electrical Technology (C, D, A)
Medical Laboratory Technology (C, D, A)
Mining Technology (C, A)
Nursing Integrated (C, D, A)
Occupational Therapy Assistant (A)
Paralegal Technology (C, A)
Physical Therapist Assistant (A)
Radiography (A)
Respiratory Care (A)
Social Media Marketing (C)
Surgical First Assisting (C, A)
Surgical Technology (C, D, A)
Truck Driving Training (C)
Unmanned Systems Technology (C)
Welding Technology (C, D, A)

Contact Information

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

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

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

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

Glema Mahr Center for the Arts
2000 College Drive
Madisonville, KY 42431
(270) 821-ARTS
General Information
(270) 821-2250
Admissions (270) 824-8643
Business Office 1-855-55GO-MCC (1-855-554-6622)
Workforce Solutions (270) 824-8659
Continuing Education (270) 824-8660
Disability Services (270) 824-1708
Financial Aid 1-855-55GO-MCC (1-855-544-6622)
Human Resources (270) 824-8649
Library (270) 824-1722
Public Relations (270) 824-8581
Records and Registrar (270) 824-8575
Veterans Affairs (270) 824-1708
Website madisonville.kctcs.edu

Administration
President Dr. Cynthia S. Kelley
Provost Dr. R. Scott Cook
VP, Quality Assurance & Administration Dr. Jonathan V. Parrent
Chief Business Affairs Officer E. Ray Gliaspie
Workforce Solutions Michael A. Davenport
Grants, Planning, and Effectiveness David A. Schuermer
Institutional Advancement Raegina D. Scott
Public Relations Coordinator Matthew S. Luckett
Division of Applied Technologies Christy S. Adkins
Division of Arts & Humanities Tonia R. Gibson
Division of Allied Health Marsha D. Woodall
Division of Nursing M. Dawn Tillen
Division of Mathematics and Sciences Natalie F. Cooper
Division of Social and Behavioral Sciences

Faculty
Adams, Sara Lyn Balduf, Professor, Ph.D., Florida State University, 2008
Adkins, Christy S, Professor, MS, Washington University, 2011
Allen, Barton E, Assistant Professor, BS, Western Kentucky University, 2002
Allen, Clarissa E, Associate Professor, MA, East Tennessee State University, 2007
Allen, E Shannon, Professor, MSN, University of Kentucky, 2001
Bailey Archila, Amberly Brooke, Associate Professor, MA, Murray State University, 2009
Bennett, Tate R, Professor, MS, West Virginia University, 1989
Bidwell, Jeffrey L, Professor, MA, Murray State University, 1999
Burton, Misty Y, Associate Professor, BS, Eastern Kentucky University, 1995
Clayton, Wendy Dail, Professor, MSN, Western Kentucky University, 2008
Cook, Ava M, Associate Professor, MSN, Northern Kentucky University, 2014
Cooper, Natalie F, Professor, MS, Murray State University, 1998
Cunningham, Chester M, Professor, MBA, Murray State University, 1998
Davis, Reid A, Professor, BS, Western Kentucky University, 1999
Davis, Sharon D, Associate Professor, MA, University of Kentucky, 1993
Davis, Timothy F, Professor, MS, Murray State University, 2013
Deal, Andrea L, Professor, MA, Murray State University, 2005
Deal, Robert Michael, Associate Professor, MS, Western Kentucky University, 2017
Duncan, April M, Instructor, BS, Western Kentucky University, 2012
Edens, Kellie Brooke, Associate Professor, DNP, Eastern Kentucky University, 2017
Elder, Loretta J, Associate Professor, DNP, Eastern Kentucky University, 2016
Florea, Jeffrey M, Professor, MS, Murray State University, 2000
Florea, Katrina M, Associate Professor, MS, Murray State University, 1999
Fouse, Patricia T, Assistant Professor, MA, Murray State University, 2007
Fugate, Sharon J, Professor, MS, Morehead State University, 1990
Gallegos, Darlena, Associate Professor, BS, Kaplan University, 2008
Garrity, Savannah C, Professor, MPA, Murray State University, 2008
Gibson, Molly E, Associate Professor, MPA, Western Kentucky University, 2008
Gibson, Sonya R, Professor, MS, Murray State University, 2008
Gooch, Joe T, Professor, MA, University of Indiana, 1966
Grace, April M, Professor, MA, Western Kentucky University, 2005
Hayes, Kelly A, Professor, MS, Murray State University, 2014
Hernandez-Stevenson, Brittany, Assistant Professor, MS, Murray State University, 2013
Hewell, Sherry D, Professor, MEd, University of Louisville, 1993
Hill, Clarissa Rana, Professor, MS, Murray State University, 2007
Johnson, Felecia K, Professor, MA, Murray State University, 1987
Jones, Joey R, Professor, MS, Murray State University, 2012
Jones, Sara Jane, Associate Professor, DNP, Eastern Kentucky University, 2016
Latham, Dawn L, Associate Professor, MSN, Western Kentucky University, 2015
Lear, Elyssa Gayle, Professor, MS, Western Kentucky University, 2001
Lear, Tracey D, Associate Professor, MSN, Northern Kentucky University, 2014
Lewis, Harry R, Associate Professor, MS, University of Evansville, 1986
Littlehale, Tracy, Associate Professor, MS, Northeastern University, 1999
Lowbridge, John, Associate Professor, PhD, South Bank University, 1971
Lucket, Matthew S, Associate Professor, MS, Western Kentucky University, 2017
Lutz, Rebecca Faith, Associate Professor, DNP, Northern Kentucky University, 2017
Markwell, Greshin M, Assistant Professor, MSN, Western Governors University, 2014
Martin, Timothy S, Assistant Professor, M.Div, Liberty University, 2016
McClearn, Nancy J, Professor, MA, Murray State University, 1997
Melton, Chandy D, Associate Professor, MA, Murray State University, 2000
Mitchell, Judith A., Associate Professor, MSN, Western Kentucky University, 2015
Modestou, Modestos, Assistant Professor, MS, Murray State University, 2016
Morris, Aaron D, Instructor, AAS, Madisonville Community College, 2011
Moore, Lizabeth A, Professor, MS, Murray State University, 1989
Payton, Amanda I, Instructor, BIS, Murray State University, 2017
Peyton, Sarah B, Associate Professor, MSN, Murray State University, 2011
Qualls, Mary Kim, Associate Professor, DOT, Eastern Kentucky University, 2016
Richmond, Camille E, Associate Professor/Librarian II, MLIS, Louisiana State University, 1991
Schnapf, Barbara A, Assistant Professor, MS, University of Evansville, 1997
Shifflett, George M, Professor, PhD, University of Virginia, 1989
Siddon, Tina M, Professor, MS, Murray State University, 2014
Simons, Kimberly Lee, Professor, MA, Murray State University, 2001
Sinopoli Bascom, Paula J, Lecturer, MS, University of Southern Mississippi, 1996
Skeen, Amanda F, Associate Professor, MPT, University of Evansville, 2003
Talukdar, Asess, Associate Professor, PhD, University of Cincinnati, 2008
Taylor, Stephanie A, Professor, MAE, Western Kentucky University, 2013
Tillen, Monica D, Professor, MS, Western Kentucky University, 1992
Welch, Jennifer R, Associate Professor, MA, Western Kentucky University, 2009
Werner, Mary B, Professor, PhD, Northern Illinois University, 1996
West, Robin R, Associate Professor, PhD, Indiana State University, 2008
Woodall, Marsha Dianne, Professor, DNP, Eastern Kentucky University, 2016
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.

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Academic Programs

Transfer Curricula
- Associate in Arts
- Associate in Science

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

Advanced Integrated Technology (C)
Advanced Nursing Assistant (C)
Air Conditioning Technology (C, D)
Automotive Technology (C, D)

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

Computer Aided Drafting & Design (C)
Computer and Information Technologies (C, A)
Computerized Manufacturing and Machining (C, D, A)
Construction Technology (C, D)

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

Contact Information

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

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

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

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

Additional Sites

Rowan Campus Downtown Extension
229 Flemingsburg Road
Morehead, KY 40351
(606)780-0628
(606)780-0629
maysville.kctcs.edu
Pasley, Terry L, Professor, MA, Northern Kentucky University, 1998
Pecco, Nicholas, Associate Professor, BS Morehead State University, 2005
Peefl, Pamela, Instructor, AAS Nursing, Jefferson Community and Technical College, 1997
Perkins, Brandin, Professor, MS, Morehead State University, 2005
Porter, Matthew, Instructor, AAS, Maysville Community and Technical College, 2010
Prater, Mary Alice, Instructor, DPT, Arcadia University, 2017
Redden, Carla S, Assistant Professor/Librarian II, MLS, University of Kentucky, 2009
Reeder, Diana L, Associate Professor, AAS, Morehead State University, 1979
Richardson, James, Instructor, MS, Oklahoma State University, 2015
Sears, Christopher M, Associate Professor, PhD, University of Wisconsin-Milwaukee, 2007
Sharp, Mary J, Professor, MS, Morehead State University, 1994
Sims, Rhonda Y, Professor, PhD, Walden University, 2014
Slone-Crumbie, Donna, Associate Professor, MA, University of Kentucky, 2008
Staviski, Sharon, Instructor, BS, Northern Kentucky University, 1990
Taylor, Carrie L, Associate Professor, MA, Northern Kentucky University, 2009
Thornberry, Tara C, Professor, MBA, Morehead State University, 1984
Thoroughman, Michelle, Instructor, BS, University of Kentucky, 2002
Vice, Marlene K, Professor, AA, Morehead State University, 2001
Walker, Melinda F, Associate Professor, MA, Morehead State University, 2004
Wallace, Tony L, Professor, BS, Morehead State University, 2007
Ward, Russell C, Professor, MA, Morehead State University, 1989
Weiss, Justin A, Associate Professor, MS, Marshall University, 2009
Whitten, Brianna C, Associate Professor, MA, Georgetown College, 2004
Wilson, Luanné, Instructor, BSN, Eastern Kentucky University, 1990
Wilson, Sharon G, Professor, MS, Auburn University, 1985
Wylie, Jeff B, Professor, MA, Morehead State University, 1977
Zanakis, Rena, Instructor, MA, Western Kentucky University, 2015
Zemba, Patrick, Instructor, AAS, Columbus State Community College, 1991

**Correctional Campuses**

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

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

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

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

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

Academic Programs

Transfer Curricula

Associate in Arts
Associate in Science

Transfer Curricula/Art Related

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

- Theatre (A)
- Visual Art (A)

Occupational/Technical Curricula

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

- Advanced Nursing Assistant (C)
- Agricultural Studies (D, A)
- Air Conditioning Technology (C, D, A)
- Automotive Technology (C, D, A)
- Business Communication (C)
- Business Studies: Administrative Office Technology (C, A)
- Business Administration Systems (C, D, A)
- Medical Information Technology (C, A)
- Computer and Information Technologies (C, A)
- Computerized Manufacturing and Machining (C, D, A)
- Construction Technology (C)
- Criminal Justice (C, A)
- Diesel Technology (C, D, A)
- Emergency Medical Services – Paramedic (C, A)

Emergency Medical Technician (C)
Engineering and Electronics Technology (C, D, A)
Engineering Related: Project Lead the Way (C)
Financial and Customer Service (C)
Fire/Rescue Science Technology (C, D, A)
General Occupational/Technical Studies (A)
Healthcare Facilities Leadership (C, D, A)
Interdisciplinary Early Childhood Education (C, D, A)
Manufacturing Industrial Technology:
  - Electrical Technology (C, D, A)
  - Industrial Maintenance Technology (C, D, A)
Medicaid Nurse Aide (C)
Medical Assisting (C, D, A)
Nursing (A)
Pharmacy Technology (C)
Radiography (C, A)
Surgical Technology (C, A)
Technical Theatre (C)
Veterinary Technology (A)
Welding Technology (C, D, A)

Contact Information

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

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

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

General Information

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

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

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

Scott Williams, PhD
Veena Sallan, PhD
Sarah Price
James Hartz
Mike Rodgers
Kevin Beardsmore
Cynthia Fiorella
Stacy Edds-Ellis, PhD
Marc Malthy, PhD
Andrea Borregard, EdD
Rhonda Logsdon
Terri Lanham, RN, MSN
Julia Ledford, PhD
Aubrey D. Autry
Aubrey D. Autry
Aubrey D. Autry
Bernadette Toye Hale
Jeff Hendricks
Vickie Hohiemer
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.

### Contact Information

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

**SCC Laurel Campus**
100 University Dr.
London, KY 40741

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

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

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

**SCC Casey Center**
1 Pettyjohn St.
Liberty, KY 42539

### General Information

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

### Academic Programs

#### Transfer Curricula
- Associate in Arts
- Associate in Science

#### Occupational/Technical Curricula

- Air Conditioning Technology (C, D)
- Auto Body/Collision Repair Technology (C, D)
- Automotive Technology (C, D)
- Aviation Maintenance Technology (C, D, A)
- 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)
Administration

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

Faculty

Abner, Jeffery, Assistant Professor, BS, Eastern Kentucky University, 2015
Allen, Melinda J, Associate Professor, MA, Eastern Kentucky University, 1993
Anderson, Anita, Instructor, Liberty University
Asher, Jason, Associate Professor, MA, Lindsey Wilson College, 2010
Atkinson-Bigelow, Johnna, Professor, MA, University of Kentucky, 1988
Ballard, Linda K, Professor, EdD, Eastern Kentucky University, 2016
Barnes, Kelly J, Associate Professor, MS, Eastern Kentucky University, 2006
Beaty, Frances M, Associate Professor, AS, Eastern Kentucky University, 1986
Bell, Christopher, Instructor, AAT, Somerset Community College, 2001
Bentley, Shelia, Assistant Professor, MS, Eastern Kentucky University, 2009
Billingsley, JoAnna, Professor, DNP, University of Kentucky, 2010
Bloomberg, Michael S, Associate Professor, MA, Eastern Kentucky University, 2005
Bowling, Virginia, Instructor, MSN, Capella University, 2018
Bradley, Daniel A, Associate Professor, MA, Morehead State University, 2007
Bridgeman, Pamela S, Professor, MS, Capitol College, 1999
Brook, Brandy, Associate Professor, BS, Eastern Kentucky University, 2013
Brown, Eddie, Associate Professor, AAS, Somerset Community College, 2003
Broyles, Angela W, Associate Professor, MS, Eastern Kentucky University, 1999
Burton, Cindy, Associate Professor, BFA, American Intercontinental University, 2009
Byrd, Cynthia G, Instructor, MAEd, Eastern Kentucky University, 1986
Calcattera, Carol L, Associate Professor, MBA, Eastern Kentucky University, 1993
Cash, Curtis F, Professor, MA, Union College, 2007
Chadwell, Clevern, Associate Professor, AAS, Somerset Community College, 2007
Children, Margaret L, Associate Professor, MBA, Morehead State University, 2008
Cleberg, Kimberle S, Associate Professor, MA, Eastern Kentucky University, 2001
Cleberg, Steven F, Professor, MFA, University of Portland, 1982
Colley, David A, Associate Professor, MS, Eastern Kentucky University, 2015
Conaway, Vicki L, Professor, MSN, University of Kentucky, 1984
Deaton, Eric D, Associate Professor, MS, Eastern Kentucky University, 1997
Decker, Doyle, Assistant Professor, MA, California State University, 2010
Dobbs, Billy W, Associate Professor, MS, University of Kentucky, 1994
Duvall, Billie, Associate Professor, MSN, Eastern Kentucky University, 2012
Eastham, Donna S, Professor, M.A.Ed., Western Kentucky University, 1994
Eastham, Tamara K, Instructor, MSN, Eastern Kentucky University, 2006
Elam, Debra L, Associate Professor, AS, Somerset Community College, 2014
Farmer, Adam, Assistant Professor, BS, Berea College, 2004
Fieldman, Samantha, Assistant Professor, BS, Eastern Kentucky University, 2004
Flynn, Lynsey R, Instructor, MSN, Western Kentucky University, 2016
Franklin, Tracey, Assistant Professor, BA, Midway College, 2014
Fries, Wanda F, Professor, MFA, Berea College, 1986
Fugate, Dena, Instructor, AAS, Somerset Community College, 2009
Gadd, Belinda P, Associate Professor, MA, Eastern Kentucky University, 2002
Gadd, Susan G, Professor, MS, University of Kentucky, 1989
Gammage, Simeon D., Associate Professor, AAS, Somerset Community College, 2010
Gaskin, Tom P, Associate Professor, MS, Eastern Kentucky University, 2007
Goleman, Michael J, Associate Professor, PhD, Mississippi State University, 2010
Graham, Gerald M, Associate Professor, AAS, Somerset Community College, 2000
Graves, Heather, Instructor, BS, Northern Kentucky University, 2018
Greene, Charles D, Instructor, BS, Eastern Kentucky University, 2017
Groves, Alyce A, Professor, MA, Southwest Missouri State University, 1989
Hammons, John S, Professor, DPT, Shenandoah University, 2006
Harris, James Ricky, Associate Professor, AAS, Somerset Community College, 2007
Harris, Jeffrey D, Professor, MA, Eastern Kentucky University, 1998
Hawk, Jillissa D, Instructor, MSN, Eastern Kentucky University, 2008
Hewitt, John, Associate Professor, MSN, Western Kentucky University, 2016
Hinkle, Teresa, Assistant Professor, MS, Eastern Kentucky University, 2010
Hoover, Ashley, Instructor, BSN, Northern Kentucky University, 2017
Holkins, Jess, Associate Professor, BA, Eastern Kentucky University, 1975
House, Debra J, Professor, MS, University of Kentucky, 1994
Howe, Julie M, Associate Professor/Librarian, MLSL, University of Kentucky, 2010
Huffaker, Lorra S, Professor, MSN, Eastern Kentucky University, 2003
Huntsman, Mary Taylor, Professor/Librarian, MA/MLS, University of Kentucky, 1994
Jacques, Kenneth R, Professor, MBA, Ball State University, 1987
Johnson, Kelly, Associate Professor, MA, Eastern Kentucky University, 2003
Kilgore, April L, Instructor, PhD, University of Kentucky, 1994
Land, Kimberly, Instructor, AAS, Temple College, 1999
Larson, Irene J, Associate Professor, MA, National University, 2010
Lawless, Gary W, Instructor, AAS, Somerset Community College, 2017
Lewis, Kathy S, Professor, MS, Eastern Kentucky University, 1994
Logan, Donna I, Professor, MS, Eastern Kentucky University, 1997
Macri, Ronald W, Associate Professor, MA, Morehead State University, 1984
Martin, Ruth S, Professor, DNP, Western Kentucky University, 2017
Martinez, George M, Professor, MS, Murray State University, 1991
Matika, Richard S, Associate Professor, EdD, University of Kentucky, 2012
McClendon, Steven S, Associate Professor, EdD, University of the Cumberlands, 2012
McQueen, Travis, Professor, MS, Eastern Kentucky University, 2001
Meade, Ronald L, Professor, DPT, Shenandoah University, 2006
Meier, Tina M, Instructor, AAS, Somerset Community College, 2010
Merritt, Lorrenda D, Instructor, BA, Eastern Kentucky University, 2005
Metcalfe, Virginia E, Associate Professor, MS, Eastern Kentucky University, 2002
Mills, Angela N, Associate Professor, BS, Northern Kentucky University, 2014
Mills, Craylon T, Associate Professor, PhD, Capella University, 2015
Morris, Amanda K, Associate Professor, MA, University of Kentucky, 2009
Muse, Dana, Professor, MS, University of Kentucky, 1998
Nazario, Eduardo, Assistant Professor, AS, Sullivan University, 2005
Noel, Megan, Instructor, AAS, Somerset Community College, 2011
Null, George Curtis, Assistant Professor, AAS, Lexington Electronic Institute, 1995
Osborne, Roger, Professor, MA, University of Louisville, 2002
Owens, Jennifer, Associate Professor, AAS, Somerset Community College, 2008
Peterson, Betty W, Professor, MS, University of Kentucky, 1986
Phipps, David A, Associate Professor, AAS, Somerset Technical College, 2004
Phipps, Devin, Associate Professor Librarian, MLSL, University of Kentucky, 2011
Phillips, Christopher M, Professor, EdD, University of Kentucky, 2011
Pierce, Christopher A, Associate Professor, BS, University of Kentucky, 2003
Powell, Nancy L, Professor, M.A.Ed., Eastern Kentucky University, 1987
Powers, Carson, Associate Professor, MSN, Eastern Kentucky University, 2014
Ramilo, Cecilia A, Associate Professor, PhD, Washington State University, 1996
Randall, Marci S, Associate Professor, M.A.Ed., Eastern Kentucky University, 2011
Ratliff, Donna R, Professor, M.A.Ed., Eastern Kentucky University, 1999
Roberts, Laura E, Associate Professor, BSN, Eastern Kentucky University, 1991
Shearer, Elizabeth, Professor, MA, Western Kentucky University, 1988
Shelton, Billie J, Professor, DNP, Eastern Kentucky University, 2017
Sherman, Gary J, Professor, MS, University of Wyoming, 1979
Simpson, William Stuart, Professor, MS, Eastern Kentucky University, 2004
Spencer, Robert T, Professor, MA, Eastern Kentucky University, 1993
Starnes, John H, Associate Professor, PhD, University of Kentucky, 2013
Stephens, Erin, Associate Professor, MS, Eastern Kentucky University, 2007
Stringer, Gail S, Professor, MS, Eastern Kentucky University, 1989
Summer, Stephanie, Instructor, University of the Cumberlands, 2015
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
Thacker, James, Instructor, AAS, Somerset Community College, 2018
Thomas, Brandi W, Professor, MS, Eastern Kentucky University, 2001
Thomas, Janice E, Associate Professor, MSN, Eastern Kentucky University, 2008
Tincher, James E, Assistant Professor, AAT, Somerset Technical College, 2000
Toby, Kimberly L, Associate Professor, MS, University of Kentucky, 1998
Upchurch, Joni M, Associate Professor, BS, Eastern Kentucky University, 2019

35
Ware, Lisa N, Associate Professor, MAEd, Eastern Kentucky University, 2010
Waterstrat, Amanda J, Associate Professor, PhD, University of Kentucky, 2009
Watson, Karl D, Professor, BS, Eastern Kentucky University, 2002
Watters, Tammy R, Associate Professor, BSN, Eastern Kentucky University, 2015
Weatherford, Megan, Instructor, MA, Western Kentucky University, 2013
Wells, Michael, Assistant Professor, BS, Indiana Wesleyan University, 2013
Westerfield, Mary Jo, Instructor, ASN, Eastern Kentucky University, 1991
Wheet, Dee, Assistant Professor, BSN, Eastern Kentucky University, 2017
Wilson, Jennifer K, Professor, MSN, Eastern Kentucky University, 2000
Wooldridge, Eric N, Professor, BS, University of Kentucky, 2001
Xia, Zhiming, Associate Professor, MS, University of Mississippi, 1999
Mission Statement/Status of Accreditation

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

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

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

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

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

Academic Programs

Transfer Curricula
- Associate in Arts
- Associate in Science

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

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

Contact Information

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

Off Site Locations

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

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

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

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

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

General Information

Admissions
(270) 901-1094
Denna White

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

Business Office
1-855 246-2482
Jennifer Noble

Workforce Solutions
(270) 901-1033
Dr. Kim Myers

Assessment & Testing
(270) 901-1036
Elaine Yates

Disability Services
(270) 901-1202
Sherita Clark

Financial Aid
1-855-246-2482
Jennifer Wells

Human Resources
(270) 901-1115
Sherri Forester

Institutional Advancement
(270) 901-1116
Heather Rogers

Library
(270) 901-1155
Janice Gabbard

Public Relations
(270) 901-1117
Mark Brooks
Faculty

Adams, Elizabeth C, Associate Professor, MA, Western Kentucky University, 2012
Adams, Jessica L, Associate Professor, MS, Murray State University, 2001
Bayer, Jessica, Assistant Professor, MS, Southern Illinois University, 2007
Banks, Deborah P, Assistant Professor, MA, Western Kentucky University, 2006
Beagle, Gary W, Associate Professor, MA, Western Kentucky University, 1995
Bourque, Brittany, Associate Professor, BSN, Western Kentucky University, 2003
Bradford, Joshua, Associate Professor, BS, Western Kentucky University, 2006
Case, Joseph C, Professor, MS, Trevecca Nazarene University, 2011
Cassady, Scott, Instructor, MS, Florida State University, 1995
Combs, Rex Allen, Professor, MS, Western Kentucky University, 2007
Conner, Rebecca E, Assistant Professor, Ph.D., Texas Woman’s University, 1996
Dent, Julie G, Instructor, MBA, University of Kentucky, 1997
Dowell, Ryan, Instructor, University of Kentucky, 2016
Eadens, Brian, Assistant Professor, BS, Western Kentucky University, 2012
Ellis, Claudean, Assistant Professor, MA, Nova Southeastern University, 2005
Emory, Amy B, Instructor, DC, National University of Health Science, 2008
Faine, John B, Associate Professor, MS, Northern Kentucky University, 2006
Finley, Joseph Lynn, Professor, MS, University of Kentucky, 2002
French, Esther G, Assistant Professor, MA, University of Southern Mississippi, 2005
Florence, Christina, M, Associate Professor, MA, Western Kentucky University, 2012
Fose, Jacob F, Instructor, MS, Western Kentucky University, 2013
Fose, Margaret R, Associate Professor, MA, Western Kentucky University, 2012
Galloway, Angela M, Associate Professor, MS, University of Kentucky, 2005
Gardner-Palmer, Jali M., Instructor, MS, Western Kentucky University, 2014
Gaskins, Carmen C, Professor, MS, Western Kentucky University, 1994
Gentry, Traci, Professor, MSN, Western Kentucky University, 2011
Gibbons, Jacqueline R, Instructor, MA, Western Kentucky University, 2011
Gilbert, Bobby R, Assistant Professor, MSN, Western Kentucky University, 2010
Gilpin, Rachel, Assistant Professor, MSN, Western Kentucky University, 2009
Gooden, Chloe, Instructor, MA, The University of Alabama, 2013
Grant, Brandyen, Instructor, MACc, Western Kentucky University, 2014
Greer, Michael, Associate Professor, AA, Bowling Green Technical College, 2012
Harlan, Angela K, Professor, DNP, Northern Kentucky University, 2016
Harris, Patricia A, Instructor, MBA, Western Kentucky University, 1999
Hatcher, Steve A, Professor, BS, Western Kentucky University, 2011
Houchens, Charles D, Professor, MS, Western Kentucky University, 2009
Hunt, Jon D, Professor, AAS, Bowling Green Technical College, 2006
Inscoc, Tammy, Instructor, AAS, Southcentral Community and Technical College, 2009
Jeter, Chris, Assistant Professor, BIS, Western Kentucky University, 2009
Jones, Charles D, Associate Professor, MA, Savannah College of Art and Design, 1990
Keel, Sue, Assistant Professor, MSN, Western Kentucky University, 2015
King, Brian D, Instructor, AAS, Southcentral Kentucky and Community Technical College, 2014
Kirby, Matthew R, Instructor, MFA, Western Kentucky University, 2015
Laphier, Tonya S, Instructor, MA, Western Kentucky University, 2011
LeFevre, Kathryn A, Associate Professor, MS, University of Kentucky, 2007
McFadden, Art A, Instructor, BS, Western Kentucky University, 1995
McKenney, Ken D, Associate Professor, BS, Western Kentucky University, 2014
Moore, Wendy B, Associate Professor, MSN, Western Kentucky University, 2006
Moorman, John K, Assistant Professor, BS, Western Kentucky University, 1977
Moss, Timothy, Instructor, AAS, Southcentral Kentucky and Technical College, 2012
Mullally, Aaron T, Assistant Professor, MA, The College of Saint Scholastica, 2007
Norrod, Amy Paige, Associate Professor, BS, Mid-Continent University, 2008
Otto, Kimberly D, Associate Professor, MA, Western Kentucky University, 2006
Papalouca, Loucas, Professor, MS, Western Kentucky University, 1989
Patel, Virendrakumar Anikumar, Associate Professor, MA, Eastern Kentucky University, 2010
Pennycull II, Donald B, Associate Professor, MS, Western Kentucky University, 2007
Peyton, Natassia L, Assistant Professor, MSN, Western Kentucky University, 2016
Pharris, Kimberly, Assistant Professor, MSN, Western Kentucky University, 2016
Phelps, Jeffery W, Professor, BS, Western Kentucky University, 2000
Pootec, Bruce D, Assistant Professor, MA, Western Kentucky University, 2004
Profitt, Jessica, F, Associate Professor, BSN, Western Kentucky University, 2012
Purpus, Carmen E, Assistant Professor, MPA, Western Kentucky University, 2007
Rhodes, Lisa, Instructor, MA, Western Kentucky University, 1993
Richardson, Merrie R, Instructor, MS, Western Kentucky University, 2014
Shive, April, Professor, MSN, Western Kentucky University, 2011
Slaughter, Lori A, Professor, MA, Western Kentucky University, 2010
Smith, Shellenora R, Associate Professor, MA, Eastern Kentucky University, 2011
Sparks, Richard B, Professor, BS, University of Kentucky, 2003
Stephens, Jeremy D, Associate Professor, AAS, Bowling Green Technical College, 2010
Tackett, Kristina, Associate Professor, MS, Western Kentucky University, 2009
Taylor, Beau H, Instructor, AS, Southcentral Kentucky Community & Technical College, 2013
Taylor, Michael O, Professor, BA, Western Kentucky University, 1972
Turre, James R, Assistant Professor, MA, Western Kentucky University, 1972
Turner, Kerry S, Associate Professor, AAS, Bowling Green Technical College, 2008
Varney, Bertena, Associate Professor, MA, Morehead State University, 1998
Waggoner, Constance, J, Associate Professor, MS, Capella University, 2009
Ward, Teresa Y, Assistant Professor, MS, Troy University, 1983
Watkins, Renea, Instructor, BSN, Western Kentucky University, 1999
Wendt, Lea D, Associate Professor, MA, California State Polytechnic University, 2005
West, Jared D, Assistant Professor, AAS, Southcentral Kentucky Community and Technical College, 2006
White, Renee, Associate Professor, PhD, University of Louisville, 2003
Williams, Thomas W, Associate Professor, MA, Western Kentucky University, 2007
Wilkins, Diane A, Professor, MA, University of Kentucky, 1999
Wolters, Rachel M, Instructor, PhD, Southern Illinois University, 2017
Youngquist, Sherry W, Assistant Professor, MA, Western Kentucky University, 1997
Southeast Kentucky Community and Technical College

Mission Statement/Status of Accreditation

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

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

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

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

Academic Programs

Transfer Curricula

Associate in Arts
Associate in Science

Occupational/Technical Curricula

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

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

Contact Information

Southeast Kentucky Community and Technical College
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: Kevin Lambert  (606) 589-3305
Admissions: Felicia Carroll  (606) 248-0257
Bookstore: Stephanie Jenkins  (606) 589-3086
Business Affairs: Sandy Mayes  (606) 248-2223
Director of Advising: Sherry Tinsley  (606) 589-3074
Disability Services: Michael Ingram  (606) 589-3214
Financial Aid: Barbara Gent  (606) 248-0142
Human Resources: Billie Franks  (606) 589-3029
Library: Lynn Cox  (606) 589-3070
Marketing: Shawn Lind  (606) 589-3198
President’s Executive Assistant: Paul Bryant  (606) 589-3000
Public Relations: Amy Simpson  (606) 248-0484
Recruiting: Kim Maynard  (606) 248-0255
Registration/Records: Anita Barnhill  (606) 248-0137
Transfer/Career Information Liaison: Joe Sutton  (606) 248-0768
Veterans Affairs: Kim Hobbs  (606) 248-0143
Website  southeast.kctcs.edu
Workforce Solutions: Sherri Clark  (606) 248-2224

Administration

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

Faculty

Abrams, Emily, Instructor, BS, King University, 2014
Ahlstedt, Emily, Instructor, BS, University of Tennessee, 1995
Awood, Ruthellen, Instructor, BSN, University of the Cumberlands, 2017
Bargo, Glenna, Associate Professor, MSN, Eastern Kentucky University, 2008
Barrick, Lisa, Assistant Professor, MEd, Lincoln Memorial University, 2010
Blanton, Scott, Professor, MSN, Northern Kentucky University, 2011
Bowling, Kenneth N, Professor, BS, Union College, 2003
Bowling, Tracy, Professor, PT, DPT, University of Kentucky, 2010
Bowling, Roger A, Professor, MS, Eastern Kentucky University, 2000
Brooks, Lana, Associate Professor, MSN, Western Kentucky University, 2014
Buell Jr, Elijah, Professor, MBA, Morehead State University, 1980
Burnside, Patricia, Professor, MAEd, Tusculum College, 2007
Carmack, Michael E, Professor, AAS, Harlan Regional Technology Center, 1995
Chapman, Tammie, Professor, MA, Cumberland College, 1995
Clutts, David W, Professor, EdD, Liberty University, 2010
Collier, William G, Professor, MA, Eastern Kentucky University, 1992
Conklin, Peggy, Professor, 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, Morehead State University, 1996
Daniels, Ronnie W, Professor, BS, Eastern Kentucky University, 2000
Dingus, Ariel, Assistant Professor, MA, Middle Tennessee State University, 2012
Ditty, Kathy, Associate Professor, Med, Lindsey Wilson College, 2004
Dixon, Jill Suzanne, Associate Professor, DPT, University of Kentucky, 2011
Drueu, Matthew, Assistant Professor, Ph.D., University of Louisville, 2010
Dyer, Bradley, Professor, M.S., Eastern State University, 1999
Eldahan, Ismail A, Associate Professor, MS, American Sentinel University, 2008
Eldridge, Tracy, Assistant Professor, BS, Lincoln Memorial University, 2010
Epling, Michael, Professor, MBA, Morehead State University, 1995
Fields, Brian, Assistant Professor, M.S., Everest University, 2010
Forbes, Zelma M, Professor, MS, Ohio University, 1983
Forson-Scopa, Elana, Associate Professor, MS, Eastern Kentucky University, 2003
Givens, Kristie, Instructor, BSN, South University, 2016
Good, Michael S, Professor, MS, Eastern Kentucky University, 2001
Gordon, Sheila, Professor, MLS/MSW, University of Kentucky, 2014/1995
Halcomb Jr, Astor, Professor, BUS, Morehead State University, 1992
Helton, Melissa, Associate Professor, MFA, Bowling Green State University, 2006
Herren, Douglas, Professor, AAS, Southeast Kentucky Community and Technical College, 2006
Hollbrook, Sandy, Professor, MEd, Western Kentucky University, 2011
Hughes, Carlton W, Professor, MA, Marshall University, 1987
Jackson, Terri, Associate Professor, MSW, Western Kentucky University, 2014
Johnson, Joseph, Associate Professor, PhD, Clemson University, 2010
Jones, Jamie, Assistant Professor, MA, East Tennessee State University, 2006
Jones, Lynn Y, Professor, MA, Eastern Kentucky University, 1983
Kidwell, David T, Professor, PhD, University of Kentucky, 1993
Lambert, Kevin, Professor, MS, University of Tennessee, 1994
Lawson, Rebecca L, Associate Professor, CST, BA, Ashford University 2007
Layne, Kenneth, Assistant Professor, BS, Eastern Kentucky University, 1988
Marcum, Joseph S, Professor, MA, University of Tennessee, 1980
Marsee, Stephanie, Instructor, BSN, University of Pikeville, 2014
Mayes, Caroline, Associate Professor, MA, National University, 2007
Miller, Rebecca D, Professor, MA, Union College, 1998
Mills, Dana, Instructor, AAS, Fugazzi College, 1999
Nolan, Jennifer, Instructor, AAS Nursing, Southeast Community College, 1986
Omar, Sach, Associate Professor, PhD, Mississippi State University, 1987
Pace, Natasha, Assistant Professor, BSN, Eastern Kentucky University, 2007
Pennington, Joy, Associate Professor, MSN, Chamberlain College of Nursing, 2013
Scopa Jr, Joseph A, Professor, MFA, Pennsylvania State University, 1976
Shepherd, Deborah Ann, Instructor, BSN, Chamberlain University, 2018
Silver, Roy, Professor, PhD, University of Toledo, 1982
Simpson, Amelia, Professor, MFA, Spaulding University, 2013
Singh, Rajiv, Assistant Professor, MS, University of North Dakota, 2012
Smith, Marshall, Associate Professor, AAS, Southeast Kentucky Community and Technical College, 2011
Steenbergen, Gary L, Professor, MS, Eastern Kentucky University, 1996
Stewart, Jenny, Assistant Professor, BS, University of Kentucky, 1982
Sundy, Carolyn M, Professor, Ph.D., Mississippi State University, 2017
Turner, Delilah, Instructor, BS, Eastern Kentucky University, 2013
Turner, Mary Llean, Associate Professor, BS from EKU, 1994
Vaught, Jamie, Professor, MBA, University of Kentucky, 1981
Walker, Robert, Associate Professor, AAS, Southeast Kentucky Community and Technical College, 2016
Webb, Danny, Associate Professor, MA, Eastern Kentucky University, 1994
Whited, Paula, Associate Professor, MSN, University of Louisville, 2007
Wright, Wendy, Professor, MS, Eastern Kentucky University, 2015
Mission Statement/Status of Accreditation

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

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

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

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

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

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

Academic Programs

Transfer Curricula

Associate in Arts
Associate in Science

Transfer Curricula/Art Related

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

Visual Art (A)

Occupational/Technical Curricula

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

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

Contact Information

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

Accessibility Services (270) 534-3406
Admissions/Records 1-855-GO-WKCTC (1-855-469-5282)
Advising Center 1-855-GO-WKCTC (1-855-469-5282)
Adult Learning Center (Adult Education/GED program)
  McCreary County (270) 534-3451
  Graves County (270) 856-2422
Assessment Center 1-855-GO-WKCTC (1-855-469-5282)
Bookstore (Anderson Technical Building) (270) 534-3247
Business Office 1-855-GO-WKCTC (1-855-469-5282)
Challenger Learning Center (270) 534-3101
Clemens Fine Arts Center Box Office (270) 534-3212
Community Education (270) 534-3335
Commonwealth Middle College (270) 534-3350
Financial Aid 1-855-GO-WKCTC (1-855-469-5282)
General Information (270) 534-9200
Human Resources (270) 534-3091
Library (270) 534-3197
Nursing (270) 534-3466
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) 534-1490
Transfer Advising Center (270) 534-3187
TRIO - Student Support Services (270) 534-3180
University of Kentucky College of Engineering (270) 534-3129
Veterans Affairs (270) 534-3187
Website westkentucky.kctcs.edu

Administration

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

Faculty

Adkins, Rhonda J, Professor, MA, Murray State University, 1985
Alo, Paul R, Associate Professor, MFA, University of South Florida, 1979
Akin, Selenia B, Professor, EdD, Vanderbilt University, 2010
Akojie, Felix O, Professor, PhD, University of IFE, Nigeria, 1985
Armbruster, Teresa D, Instructor, MSN, Bellarmine University, 1993
Arnone, Samuel J, Assistant Professor, BS, Southern Illinois University, 1998
Batts, DeAnn J, Professor, MEd, Memphis State University, 1989
Blaine, Patricia A, Professor, MA, Fort Hays State University, 1981
Bischof, Kathryn P, Instructor, PhD, University of Louisville, 1988
Buchanan, Patricia A, Professor, MS, Murray State University, 2016
Burgess, Melissa A, Instructor, MS, Murray State University, 2000
Cahill, Charles S, Associate Professor, MS, California Polytechnic State University, 2009
Caldwell, Paul H, Assistant Professor, BS, Murray State University, 2016
Campbell, Mary J, Instructor, MS, Southern Illinois University, 1993
Carico, 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
Dickerson, Craig T, Professor, AAS, West Kentucky Community and Technical College, 2008
Dobbins, Charidy D, Instructor, MSN, McKendree University, 2017
Donner, Jason W, Associate Professor, MA, Murray State University, 1995
Dotson, Megan E, Associate Professor, MAE, Murray State University, 2010
Draffen, Carla K, Professor, MBA, Murray State University, 1987
Driver, Timmy E, Associate Professor, AAS, West Kentucky Community and Technical College, 2006
Dubois, Evin D, Instructor, MFA, University of Illinois at Urbana-Champaign, 2017
Duncan, Dwendollyn L, Instructor, MA, International Theological University, 2006
Durbin, Laura R, Associate Professor, MSN, Indiana Wesleyan University, 2013
Durbin, Melissa N, Instructor, MBA, Murray State University, 2006
Engelland, Erik J, Assistant Professor, AAS, West Kentucky Community and Technical College, 2010
Esau, Emily R, Instructor, MFA, Academy of Art University, 2016
Farrell, Laura K, Instructor, BS, Mississippi University for Women, 2009
Fiser, Angela M, Instructor, MSN, Champlain University, 2016
Gar, Joseph D, Instructor, PhD, University of the Cumberlands, 2015
Gericke, Kevin L, Professor, PhD, Virginia Polytechnic Institute, 1993
Gholson, Shari D, Professor, DNP, Northern Kentucky University, 2017
Goedlaker, Gary W, Professor, MS, University of Illinois at Urbana-Champaign, 1997
Green, Curtis D, Assistant Professor, AAS, Southern Illinois College, 2009
Gunn, Robert G, Associate Professor, BA, University of Alaska Fairbanks, 1981
Harper, Shawn, Professor, MS, Murray State University, 1990
Hely, Suanne Wade, Professor, MBA, Murray State University, 1983
Henderson, Tyra F, Associate Professor, EdD, Murray State University, 2017
Henry, Gretta G, Associate Professor, MS, Murray State University, 2004
Hofer, William S, Assistant Professor, AAS, West Kentucky Community and Technical College, 2011
Holland, Virgil T, Associate Professor, AS, Murray State University, 2012
Hood, Emily T, Instructor, AAS, West Kentucky Community and Technical College, 2015
Hopper, Carrie, Associate Professor, MS, Murray State University, 2008
Isenberg, Paula R, Associate Professor, MSN, University of Southern Indiana, 2010
Johnston, David C, Instructor, AAS, Ivy Tech Community College, 2008
Johnson, Jonathan B, Associate Professor, MS, Bellevue University, 2012
Jones, Latoya A, Associate Professor, DC, Life University, 2001
Jordan, Tracy L, Associate Professor, MA, Murray State University, 1986
Keeling, LeeAnn, Instructor, BSN, Chamberlain University, 2017
Knapp, Jo A, Professor, MA, Murray State University, 1990
Lee, Bobby A, Professor, PhD, University of Kentucky, 2018
Liu, Sarah S, 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
Martens, Amelia R, Instructor, MSED, Indiana University, 2013
McDanel, Tracy L, Professor, BS, Murray State University, 2009
McGullion, Allison S, Associate Professor, MS, University of Colorado at Denver, 1998
Miller, Randa G, Assistant Professor, BSN, Murray State University, 1988
Milliken, Stephanie K, Professor, MS, Murray State University, 1996
Morgan, Tiffinee S, Professor, MA, Murray State University, 1998
Neitzke, Tanya M, Instructor, MFA, Southern Illinois University Carbondale, 2011
Nickell, David L, Professor, MA, Western Kentucky University, 1982
Paul, Kelly K, Instructor, MA, Murray State University, 2010
Perry, Carolyn K, Professor, MBA, Thunderbird School of Global Management, 1980
Petit, Christy L, Associate Professor, MSN, University of Southern Indiana, 2007
Potts, Gregory S, Instructor, BAE, University of Kentucky, 2017
Powell, Lyman R, Instructor, AAS, John A. Logan College, 1988
Pruitt, Douglas L, Professor, PhD, Bowling Green State University, 2000
Quimby, Beverly F, Professor, BS, Mid-Continent University, 2007
Ragsdale, Tina L, Associate Professor, MS, Southern Illinois University at Carbondale, 2008
Reese, Gary L, Associate Professor, MPA, Murray State University, 1987
Russell, Kimberly G, Professor, MA, Southeast Missouri State University, 2000
Savage, Kimberly J, Instructor, BS, Murray State University, 2003
Senn, Catherine E, Professor, MS, Johns Hopkins University, 1995
Shurley, Britton M, Associate Professor, MFA, Indiana University, 2007
Sills, Eric W, Instructor, AAS, West Kentucky Community and Technical College, 2015
Simmons, Randall R, Professor, MFA, University of Cincinnati, 1995
Stephenson, Lisa G, Professor, EdD, University of Kentucky, 2012
Stoffel, Claudia A, Professor, MSN, Bellarmine College, 1992
Stringer, Amanda F, Assistant Professor, BS, West Kentucky University, 2018
Sullivan, Amy L, Librarian IV, MLS, University of Kentucky, 2017
Swain, Deborah J, Professor, BS, Murray State University, 2008
Taveras, Victor M, Associate Professor, PhD, Pennsylvania State University, 2009
Taylor, Brent E, Assistant Professor, MA, Murray State University, 2002
Taylor, Jason D, Professor, MS, Murray State University, 2000
Teague, 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
Uthoff, Candace N, Instructor, AAS, Paducah Community College, 1992
Vos, John D, Professor, MBA, Murray State University, 1989
Wade, Constance L, Professor, MA, Murray State University, 1991
Waddington, Corey M, Professor, MAE, Austin Peay State University, 1999
Walker, Robin N, Instructor, MBA, Murray State University, 2001
Winstead, Jessica K, Instructor, MSN, Capella University, 2017
Wright, Kelly R, Professor, MS, Murray State University, 1984
Applying for Admission

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

Admission and Registration Procedures

- Prospective students visit the college’s website to complete an online application or contact the admission office of the college they wish to attend and request an admission application.
- The full and proper name of the student and KCTCS student ID number must be used in registration and for all other official purposes.
- Freshmen entering a college for the first time will be required to send an official copy of their high school transcript, GED, or state approved high school equivalency to the admission office of the college they plan to attend. Official high school transcripts submitted to KCTCS may be shared with all KCTCS Colleges.
- Applicants entering with transfer credit must have an official transcript from each college attended forwarded to the admission office of the College they plan to attend. Official transcripts submitted to KCTCS may be shared with all KCTCS Colleges.
- Applicants should submit evidence of college readiness as established by the KY Council on Postsecondary Education (CPE) http://cpe.ky.gov/policies/academicaffairs/collegereadinessindicators2019.pdf which includes results of the American College Test® (ACT), KYOTE, Scholastic Aptitude Test® (SAT), ALEKS and GED College Readiness scores. Applicants who have not achieved college readiness based on one of the CPE recognized readiness assessments must complete a placement examination recognized in the KCTCS Assessment and Placement Policy and administered by any KCTCS college. For specific information regarding course placement, students should refer to the KCTCS Assessment and Placement Policy which is available on the website at https://publicsearch.kctcs.edu/policies/Admin%20Policies/4-13.pdf#search=assessment%20and%20placement
- Admission to a college does not guarantee admission to a specific program. Applicants seeking admission to an occupational/technical program at any KCTCS college should contact the admission office of the college of interest for information regarding any special requirements for program admission.
- Applicants must submit an application for admission and supporting documents prior to the first day of classes of the term or session for which the student plans to enroll. Some colleges, however, may have an earlier deadline date. Students should check with the admission office of the college they plan to attend for registration/application deadlines.
- A student who applies for admission to a KCTCS college will receive instructions to establish access to Student Self-Service. Student Self-Service allows a student access to many services such as registration, grades, class schedule, financial aid awards, bill payment and many other services.
- All enrolled KCTCS students will be given access to a KCTCS assigned email account. Official communication from faculty and student service personnel will be sent to this address. Students will continue to have access to this account as long as they are enrolled.
- After receiving the completed application and other documents, the admission office will notify the applicant of his or her admission status. It is expected that all students will submit all required documents in order to be eligible to register for classes. In the event this is not possible, students should contact the Admissions Office of the KCTCS college they wish to attend for instructions or assistance. While provisions may be provided, students will not be permitted to register for subsequent semesters without all official required documents.

Non-Degree/Non-Credential Students

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

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

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

High School Students

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

Dual Credit

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

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

- Complete the KCTCS College’s application for admission by the appropriate deadline.
- Be admitted to the KCTCS College as a dual credit student.
- Meet the requirements for enrollment in the General Education and/or Technical Education Courses per the KCTCS Assessment & Placement Policy of Dual Credit High School Students.
- Tuition for a dual credit course is one-third (1/3) of the per credit hour tuition charged by KCTCS for in-state students.

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

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

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

Freshmen Entering College for the First Time

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

Second Chance Students

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

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

Transient/Visiting Students

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

International Students

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

Readmission after Two or More Years: Academic Bankruptcy

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

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

Students with Previous College Work

An applicant who has previously attended an accredited college or university which awards degrees at the associate level or higher and who has an overall grade point average of at least 2.0 on a 4.0 scale in all course work attempted will be accepted for admission. For specific information on course placement, applicants should refer to the KCTCS Assessment and Placement Policy, which is available on the website at https://publicsearch.kctcs.edu/policies/Admin%20Policies/4-13.pdf#search=assessment%20and%20placement

An official transcript of all previous college work must be submitted. The Council on Postsecondary Education’s (CPE’s) general education transfer policy provides the basis for an institution’s policy on the acceptance of transfer credit. The American Association of Collegiate Registrars and Admissions Officers’ “Transfer Credit Practices of Educational Institutions” shall serve as a reference for admission of transfer students to an institution and for the acceptance of transfer credit. Official post-secondary transcripts submitted to KCTCS may be shared with all KCTCS colleges.

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

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

Change of Program

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

KCTCS Assessment and Placement Policy

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

General Provisions

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

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

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

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

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

G. Approved methods of assessment and placement are:
   - ACT
   - Accuplacer
   - ALEKS PPL
   - ASSET (not administered after November 30, 2016)
   - COMPASS (not administered after November 30, 2016)
   - EdReady (KCTCS)
   - GPA (Cumulative unweighted high school GPA at the end of the first semester senior year)
   - KYOTE
   - SAT
   - TABE 9/10-A
   - Wonderlic

Special Provisions

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

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

B. Change in Quantitative Reasoning/Math Pathway

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

C. Alternative Remediation

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

D. Accommodations

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

F. Waivers

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

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

## Mathematics Placement Levels

<table>
<thead>
<tr>
<th>Mathematics Placement Level</th>
<th>ACT Mathematics</th>
<th>SAT Mathematics</th>
<th>KYOTE</th>
<th>EdReady Mathematics</th>
<th>KCTCS Courses</th>
<th>A student may enroll in any course listed below the indicated placement level. “S” indicates a corequisite option</th>
</tr>
</thead>
<tbody>
<tr>
<td>CALCULUS COLLEGE READINESS</td>
<td>27</td>
<td>650</td>
<td>CALCULUS 15</td>
<td>95</td>
<td>MAT 175, MAT 174, MAT 170</td>
<td></td>
</tr>
<tr>
<td>Precalculus</td>
<td>23</td>
<td>560</td>
<td>COLLEGE ALGEBRA 15</td>
<td>80</td>
<td>MAT 171, MAT 160, MAT 159</td>
<td></td>
</tr>
<tr>
<td>COLLEGE ALGEBRA COLLEGE READINESS</td>
<td>22</td>
<td>540</td>
<td>COLLEGE ALGEBRA 14</td>
<td>75</td>
<td>MAT 161, MAT 155, MAT 154, MAT 150</td>
<td></td>
</tr>
<tr>
<td>College Algebra Corequisite OR QUANTITATIVE REASONING COLLEGE READINESS</td>
<td>19</td>
<td>500</td>
<td>COLLEGE ALGEBRA 7 or MATH PLACEMENT 22</td>
<td>65</td>
<td>MAT 150 with MAT 100, OR STA/MAT 151, MAT 146, MAT 141, MAT 126, MAT 116, MAT 110, MAT 105, PHI 250</td>
<td></td>
</tr>
<tr>
<td>College Algebra Associated Developmental</td>
<td>18</td>
<td>490</td>
<td>MATH PLACEMENT 18</td>
<td>60</td>
<td>MAT 085</td>
<td></td>
</tr>
<tr>
<td>Quantitative Reasoning Corequisite OR Associated Developmental</td>
<td>16</td>
<td>430</td>
<td>MATH PLACEMENT 12</td>
<td>55</td>
<td>MAT 146 with MAT 146S, MAT 126 with MAT126S, MAT 116 with MAT 116S, MAT 110 with MAT 110S, MAT 105 with MAT 105S, OR MAT 073, MAT 071, MAT 065</td>
<td></td>
</tr>
<tr>
<td>Meta-Major Pathway Corequisites OR Associated Developmental</td>
<td>14</td>
<td>360</td>
<td>MATH PLACEMENT 6</td>
<td>50</td>
<td>MAT 161 with MAT 161S, STA/MAT 151 with MAT 151S, MAT 141 with MAT 141S OR MAT 062, MAT 061, MAT 055, MAT 011</td>
<td></td>
</tr>
<tr>
<td>Adult Education</td>
<td>NA</td>
<td>NA</td>
<td>MATH PLACEMENT 0 – 5</td>
<td>0 - 49</td>
<td>Refer to Skills U or Pre-Enrollment Interventions</td>
<td></td>
</tr>
</tbody>
</table>

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

2 This is a new course being developed for a 2019-2020 implementation.
# Reading Placement

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

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

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

## Reading Placement Levels

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

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

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

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

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

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

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

### English Placement Levels

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

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

### English as a Second Language (ESL)

Some KCTCS colleges offer instruction to non-native English speakers. Any ESL student who does not meet college readiness levels in English or reading shall take a language placement assessment, currently the Michigan English Placement Test (MEPT)7. ESL students who do not meet college readiness levels in mathematics shall take the institution’s current mathematics assessment tool.

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

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

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

<table>
<thead>
<tr>
<th>ESL Placement Level</th>
<th>ACT</th>
<th>MEPT</th>
<th>READING</th>
<th>WRITING</th>
<th>GRAMMAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESL COLLEGE READINESS</td>
<td>Reading 20</td>
<td>English 18</td>
<td>EPT 70</td>
<td>No Placement</td>
<td>ENG 101, FYE 105</td>
</tr>
<tr>
<td>ESL Level 4</td>
<td>EPT 60</td>
<td>ESL 053</td>
<td>ESL 063</td>
<td>ESL 063</td>
<td>ESL 063</td>
</tr>
<tr>
<td>ESL Level 3</td>
<td>EPT 50</td>
<td>ESL 052</td>
<td>ESL 072</td>
<td>ESL 082</td>
<td>ESL 082</td>
</tr>
<tr>
<td>ESL Level 2</td>
<td>EPT 40</td>
<td>ESL 051</td>
<td>ESL 071</td>
<td>ESL 081</td>
<td>ESL 081</td>
</tr>
<tr>
<td>ESL Level 1</td>
<td>EPT 21</td>
<td>ESL 031</td>
<td>ESL 041</td>
<td>ESL 041</td>
<td>ESL 041</td>
</tr>
<tr>
<td>ESL Level 0</td>
<td>EPT 0 - 20</td>
<td></td>
<td>Refer to Skills U or Pre-Enrollment Interventions</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Formerly referred to as CaMLA (Cambridge Michigan Language Assessment)

2 Where available, special sections of corequisite and RDG 100 classes dedicated to ESL students will be designated

Certificate and Diploma-Signing Students

Certificate and Diploma Minimum Standards (See Exemptions Below)

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

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

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

Certificate and Diploma Assessment and Placement Exemptions

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

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

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

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

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

All Colleges will utilize this placement guideline/policy as written

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

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

Requirements for enrollment into General Education Dual Credit Courses

Students must meet:

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

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

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

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

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

Technical Education Course Requirements

Students must meet:

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

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

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

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

Appendix II: Course Placement for Older or Uncommon Measures

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

<table>
<thead>
<tr>
<th>Mathematics Placement Level</th>
<th>ACT MATH</th>
<th>ALEKS PPL</th>
<th>ASSET (not available as of November 31, 2016)</th>
<th>COMPASS (not available as of November 31, 2016)</th>
<th>GED College Readiness MATHEMATICAL REASONING</th>
<th>MAP MATH</th>
<th>TABE 9/10 - A</th>
<th>Wonderlic QUANTITATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CALCULUS (CL) COLLEGE READINESS</td>
<td>27</td>
<td>76</td>
<td>NA</td>
<td>Algebra 93</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Precalculus</td>
<td>23</td>
<td>52</td>
<td>El Alg. 47</td>
<td>Int. Alg. 46</td>
<td>Algebra 55</td>
<td>NA</td>
<td>NA</td>
<td>355</td>
</tr>
<tr>
<td>COLLEGE ALGEBRA (CA) COLLEGE READINESS</td>
<td>22</td>
<td>46</td>
<td>El Alg. 46</td>
<td>Int. Alg. 43</td>
<td>Algebra 50</td>
<td>175</td>
<td>258</td>
<td>NA</td>
</tr>
<tr>
<td>College Algebra Corequisite OR QUANTITATIVE REASONING (QR) COLLEGE READINESS</td>
<td>19</td>
<td>30</td>
<td>El Alg. 41</td>
<td>Int. Alg. 39</td>
<td>Algebra 36</td>
<td>165</td>
<td>NA</td>
<td>340</td>
</tr>
<tr>
<td>College Algebra Associated Developmental</td>
<td>18</td>
<td>NA</td>
<td>El Alg. 39</td>
<td>Int. Alg. 36</td>
<td>Algebra 31</td>
<td>NA</td>
<td>NA</td>
<td>280</td>
</tr>
<tr>
<td>Quantitative Reasoning Corequisite OR Associated Developmental</td>
<td>16</td>
<td>NA</td>
<td>El Alg. 34</td>
<td>Int. Alg. 33</td>
<td>Algebra 25</td>
<td>NA</td>
<td>NA</td>
<td>10.2</td>
</tr>
<tr>
<td>Meta-Major Pathway Corequisites OR Associated Developmental</td>
<td>14</td>
<td>NA</td>
<td>N. Skills 25</td>
<td>Prealgebra 16</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>6.4</td>
</tr>
<tr>
<td>Adult Education</td>
<td>NA</td>
<td>NA</td>
<td>N. Skills 0 – 24</td>
<td>Prealgebra 0 - 24</td>
<td>NA</td>
<td>NA</td>
<td>0 – 6.3</td>
<td>0 - 245</td>
</tr>
</tbody>
</table>

## Reading Placement Levels

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

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

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

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

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

Per the College Readiness Indicators Workgroup, all exam scores remain an indicator of academic readiness for a minimum of twelve (12) months from the date of administration. Individual institutions may extend the length of time scores remain indicators of academic readiness. However, an institution shall not determine academic readiness using scores received from exams taken more than four (4) years prior. Other exams, prior college coursework, and placement exams may be used for course placement after a student is admitted to a postsecondary institution.
Tuition and Charges

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

Tuition and charges are assessed at the time of registration and based upon a per credit hour rate for all KCTCS colleges regardless of whether the courses are taken during the day, evening, and/or on weekends, and regardless of whether the courses are taken for credit or audit purposes. Tuition rates vary based upon Kentucky resident or non-Kentucky resident status. Qualifying students living in out of state counties that are contiguous to Kentucky may qualify for a reduced tuition rate. Fractional credit hour tuition and charges are assessed for fractional credit offerings (i.e., a student taking ¼ credit hour course would be assessed 1/4 rate of student with same residency taking a 1 credit hour course). Tuition and charges are refundable as per the “Refunds” section below. Charges for services are non-refundable unless specifically stated as refundable. Consult with your college business office for specifics. Tuition charges are published at www.kctcs.edu.

Mandatory Student Fee

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

Charges for Customized Course Offerings

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

Charges for Services

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

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

Charges for Special Examination

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

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

Cancellation of Registration for Non-Payment of Charges

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

Payment Plan Options

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

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

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

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

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

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

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

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

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

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

**KCTCS Online Learn by Term Courses**

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

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

<table>
<thead>
<tr>
<th>Timeframe for Refunds*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session</td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td>16-week</td>
</tr>
<tr>
<td>8-week</td>
</tr>
<tr>
<td>6-week</td>
</tr>
<tr>
<td>5-week</td>
</tr>
<tr>
<td>4-week</td>
</tr>
</tbody>
</table>

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

**KCTCS Online Learn on Demand**

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

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

<table>
<thead>
<tr>
<th>Timeframe for Refunds*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session</td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td>16week</td>
</tr>
<tr>
<td>15week</td>
</tr>
<tr>
<td>14week</td>
</tr>
<tr>
<td>13week</td>
</tr>
<tr>
<td>12week</td>
</tr>
<tr>
<td>11week</td>
</tr>
<tr>
<td>10week</td>
</tr>
<tr>
<td>9week</td>
</tr>
<tr>
<td>8week</td>
</tr>
<tr>
<td>7week</td>
</tr>
<tr>
<td>6week</td>
</tr>
<tr>
<td>Duration</td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td>5 week</td>
</tr>
<tr>
<td>4 week</td>
</tr>
<tr>
<td>3 week</td>
</tr>
<tr>
<td>1 week</td>
</tr>
</tbody>
</table>

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

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

---

**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.
Overview

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

Student Eligibility and Application

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

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

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

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

Dual Enrollment/Consortium Agreements

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

Federal Student Loans

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

State Programs

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

Statutory Scholarships (Waivers) for Kentucky Residents

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

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

KCTCS and College Scholarships for Kentucky Residents

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

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

College Tuition Scholarships

Each of the KCTCS institutions offer tuition scholarships. Among these scholarships are: foundation scholarships; need-based; program-specific; KCTCS Employee Spouse/Dependents; and Securing Educational Excellence in Kentucky Scholarship (SEEK). Please contact your local college for specifics.
Third Party Assistance Programs

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

Tax Credits

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

Satisfactory Academic Progress (SAP)

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

SAP Appeal Process

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

Suspension Due to GPA

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

Personal Financial Liability - Withdrawing or All ‘E’s

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Kentucky Skills U (Formerly KY Adult Education Services)

If you didn’t finish high school, there are free classes - at adult education centers and online - to help you earn your GED (high school equivalency diploma). If you are a high school graduate and need to improve your reading, math or communication skills, you may be eligible for free adult education services in your choice of any Kentucky county, as well as online.

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

Policies and Procedures

Right to Know

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

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

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

Student Rights and Responsibilities

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

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

Drug-Free Policy

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

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

Sexual Harassment

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

Pregnancy Related Accommodations

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

Grievance Procedures

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

Student Organizations

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

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

Phi Theta Kappa Honor Society

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

Student Government

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

Inter-KCTCS College Student Advisory Council

The Student Advisory Council consists of the student body president from each college. Members of this organization serve in an advisory capacity to the Vice President responsible for Student Services. The Advisory Council also provides the opportunity for the student body presidents to exchange ideas on topics of mutual concern.

Co-Curricular Activities

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

FERPA

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

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

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

Privacy and Release of Student Records

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

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

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

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

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

Records may also be furnished in compliance with a judicial order or pursuant to a subpoena or with the consent of the student.

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

**Appeal**

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

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

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

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

General Education Certifications

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

Fully General Education Certified

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

Category Certification

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

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

Transfer to Baccalaureate Institutions

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

Transfer Contacts and Services

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

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

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

Credit for External Experiences

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

Advanced Placement Program

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

<table>
<thead>
<tr>
<th>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>
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<tr>
<td>Calculus BC</td>
<td>3</td>
<td>MAT 175 and MAT 185</td>
<td>10 credit hours</td>
</tr>
<tr>
<td>Chemistry</td>
<td>3</td>
<td>CHE 170</td>
<td>4 credit hours</td>
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<td>4-5</td>
<td>CHE 170 &amp; CHE 180</td>
<td>8 credit hours</td>
</tr>
<tr>
<td>Chinese Language and Culture</td>
<td>3</td>
<td>RAE 150</td>
<td>4 credit hours</td>
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<tr>
<td></td>
<td>4</td>
<td>RAE 150 and RAE 151</td>
<td>8 credit hours</td>
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<tr>
<td>Comparative Government and Politics</td>
<td>3</td>
<td>POL 210</td>
<td>3 credit hours</td>
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<tr>
<td>Computer Science A</td>
<td>3</td>
<td>TRN 172</td>
<td>3 credit hours</td>
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<tr>
<td></td>
<td>4-5</td>
<td>CIT 149</td>
<td>3 credit hours</td>
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<tr>
<td>Computer Science Principles</td>
<td>3-5</td>
<td>Elective Credit</td>
<td>3 credit hours</td>
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<tr>
<td>English Literature/Composition</td>
<td>3</td>
<td>ENG 161</td>
<td>3 credit hours</td>
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<td>English Language/Composition</td>
<td>3</td>
<td>ENG 101</td>
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<tr>
<td>Environmental Science</td>
<td>3</td>
<td>EST 150</td>
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</tr>
<tr>
<td>European History</td>
<td>3</td>
<td>HIS 104 and HIS 105</td>
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<tr>
<td>French Language</td>
<td>3</td>
<td>FRE 201</td>
<td>3 credit hours</td>
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<td></td>
<td>4-5</td>
<td>FRE 201 and FRE 202</td>
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<td>German Language</td>
<td>3</td>
<td>GER 201</td>
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<td>GER 201 and GER 202</td>
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<td>Human Geography</td>
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<td>GEO 172</td>
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<td>Italian Language and Culture</td>
<td>3</td>
<td>TRN 106***</td>
<td>3 credit hours</td>
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<td>TRN 106 and TRN 107***</td>
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<td>TRN 106 and 107***</td>
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<td>Music Theory</td>
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<td>MIS 174</td>
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<tr>
<td>Physics 1</td>
<td>3</td>
<td>PHY 201*</td>
<td>4 credit hours</td>
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<tr>
<td>Physics 2</td>
<td>3</td>
<td>PHY 203*</td>
<td>4 credit hours</td>
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<tr>
<td>Psychology</td>
<td>3</td>
<td>PSY 110</td>
<td>3 credit hours</td>
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<tr>
<td>Spanish Language</td>
<td>3</td>
<td>SPA 201</td>
<td>3 credit hours</td>
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<tr>
<td></td>
<td>4-5</td>
<td>SPA 201 and 202</td>
<td>6 credit hours</td>
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<tr>
<td>Spanish Literature</td>
<td>3</td>
<td>TRN 110 (humanities)***</td>
<td>3 credit hours</td>
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<tr>
<td>Statistics</td>
<td>3</td>
<td>STA 220</td>
<td>3 credit hours</td>
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<tr>
<td>Studio Art 2-D</td>
<td>3</td>
<td>ART 112</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Studio Art 3-D</td>
<td>3</td>
<td>ART 113</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Studio Art – Drawing</td>
<td>3</td>
<td>ART 110</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>US Government &amp; Politics</td>
<td>3</td>
<td>POL 101</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>US History</td>
<td>3</td>
<td>HIS 108 and HIS 109</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>World History</td>
<td>3</td>
<td>HIS 101</td>
<td>3 credit hours</td>
</tr>
</tbody>
</table>

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

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

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

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

Articulation Agreements

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

Certified Professional Secretary Examination

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

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

Child Development Associate

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

Commonwealth Child Care Credential

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

Military School Age (MSA)

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

College Level Examination Program (CLEP)

KCTCS colleges accept the General and Subject Examinations of the College Level Examination Program (CLEP). The Subject Examinations cover specific material which is common to courses in many colleges and universities. The level of proficiency to earn credit through CLEP is approximately equivalent to that required to earn a “C” in the course.
<table>
<thead>
<tr>
<th>CLEP Subject Examination</th>
<th>Scaled Score to Earn Credit</th>
<th>Equivalent Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Foreign Languages</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>College Level French Language</td>
<td>50-69</td>
<td>FRE 201</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>70 or above</td>
<td>FRE 201, 202</td>
<td>6</td>
</tr>
<tr>
<td>College Level German Language</td>
<td>50-69</td>
<td>GER 201</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>70 or above</td>
<td>GER 201, 202</td>
<td>6</td>
</tr>
<tr>
<td>College Level Spanish Language</td>
<td>50-69</td>
<td>SPA 201</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>70 or above</td>
<td>SPA 201, 202</td>
<td>6</td>
</tr>
<tr>
<td><strong>History and Social Sciences</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Government</td>
<td>50 or above</td>
<td>POL 101</td>
<td>3</td>
</tr>
<tr>
<td>History of the United States I</td>
<td>50 or above</td>
<td>HIS 108</td>
<td>3</td>
</tr>
<tr>
<td>History of the United States II</td>
<td>50 or above</td>
<td>HIS 109</td>
<td>3</td>
</tr>
<tr>
<td>Introductory Psychology</td>
<td>50 or above</td>
<td>PSY 110</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Macroeconomics</td>
<td>50 or above</td>
<td>ECO 202</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Microeconomics</td>
<td>50 or above</td>
<td>ECO 201</td>
<td>3</td>
</tr>
<tr>
<td>Introductory Sociology</td>
<td>50 or above</td>
<td>SOC 101</td>
<td>3</td>
</tr>
<tr>
<td>Western Civilization I: Ancient Near East to 1648</td>
<td>50 or above</td>
<td>HIS 104</td>
<td>3</td>
</tr>
<tr>
<td>Western Civilization II: 1648 to the Present</td>
<td>50 or above</td>
<td>HIS 105</td>
<td>3</td>
</tr>
<tr>
<td>Social Sciences and History</td>
<td>50 or above</td>
<td>SOC 101</td>
<td>3</td>
</tr>
<tr>
<td>Human Growth and Developmental</td>
<td>50 or above</td>
<td>AHS 100</td>
<td>2</td>
</tr>
<tr>
<td><strong>Science and Mathematics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calculus</td>
<td>50 or above</td>
<td>MAT 174 or MAT 175</td>
<td>4, 5</td>
</tr>
<tr>
<td>College Mathematics</td>
<td>50 or above</td>
<td>MAT 146</td>
<td>3</td>
</tr>
<tr>
<td>College Algebra</td>
<td>50 or above</td>
<td>MAT 150</td>
<td>3</td>
</tr>
<tr>
<td>Pre-calculus</td>
<td>50 or above</td>
<td>MAT 160</td>
<td>5</td>
</tr>
<tr>
<td>Biology</td>
<td>50-59</td>
<td>BIO 112</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>60-64</td>
<td>BIO 120, BIO 112</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>65-80</td>
<td>BIO 150, 152</td>
<td>6</td>
</tr>
<tr>
<td>General Chemistry</td>
<td>50 or above</td>
<td>CHE 170, 180</td>
<td>8</td>
</tr>
<tr>
<td>Natural Science</td>
<td>50 or above</td>
<td>BIO 112</td>
<td>3</td>
</tr>
<tr>
<td><strong>Business and Computer Applications</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Accounting</td>
<td>50 or above</td>
<td>ACC 201</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Management</td>
<td>50 or above</td>
<td>BAS 283</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Marketing</td>
<td>50 or above</td>
<td>BAS 282</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Business Law</td>
<td>50 or above</td>
<td>BAS 267</td>
<td>3</td>
</tr>
<tr>
<td>Information Systems</td>
<td>50 or above</td>
<td>TRN 146</td>
<td>3</td>
</tr>
<tr>
<td><strong>English and Humanities</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Literature</td>
<td>50 or above</td>
<td>ENG 251</td>
<td>3</td>
</tr>
<tr>
<td>Analyzing and Interpreting Literature</td>
<td>50 or above</td>
<td>ENG 161</td>
<td>3</td>
</tr>
<tr>
<td>English Literature</td>
<td>50 or above</td>
<td>ENG 161</td>
<td>3</td>
</tr>
<tr>
<td>Humanities</td>
<td>50 or above</td>
<td>HUM 120</td>
<td>3</td>
</tr>
<tr>
<td>College Composition, College Composition Modular</td>
<td>50 or above</td>
<td>ENG 101</td>
<td>3</td>
</tr>
<tr>
<td>IB Course</td>
<td>Score</td>
<td>Credit Awarded</td>
<td>Credit Statement</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-------</td>
<td>----------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Biology HL</td>
<td>4</td>
<td>BIO 152</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Biology SL</td>
<td>4</td>
<td>BIO 112</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Chemistry HL</td>
<td>4</td>
<td>CHE 170, CHE 180</td>
<td>8 credit hours</td>
</tr>
<tr>
<td>Chemistry SL</td>
<td>4</td>
<td>CHE 140</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>English A: Literature HL</td>
<td>4</td>
<td>ENG 101</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>French B HL</td>
<td>5</td>
<td>FRE 201, FRE 201</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>French B SL</td>
<td>5</td>
<td>FRE 101, FRE 102</td>
<td>8 credit Hours</td>
</tr>
<tr>
<td>History HL</td>
<td>5</td>
<td>HIS 108, HIS 109</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>Mathematics HL</td>
<td>5</td>
<td>MA 113</td>
<td>4 credit hours</td>
</tr>
<tr>
<td>Mathematics SL</td>
<td>5</td>
<td>MAT 170</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Math Studies SL</td>
<td>5</td>
<td>Technical Math Elective</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Music SL/HL</td>
<td>4</td>
<td>MUS 100</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Physics SL/HL</td>
<td>5</td>
<td>PHY 201*</td>
<td>4 credit hours</td>
</tr>
<tr>
<td>Psychology SL</td>
<td>4</td>
<td>PSY 110</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Spanish B HL</td>
<td>5</td>
<td>SPA 201, SPA 202</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>Spanish B SL</td>
<td>5</td>
<td>SPA 101, SPA 102</td>
<td>8 credit hours</td>
</tr>
<tr>
<td>Theatre Arts HL/SL</td>
<td>4</td>
<td>THA 101</td>
<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.”

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 I grade is reported, shall include: (1) the name and number of the student, (2) the course number and hours of credit, (3) semester or session and year of enrollment, (4) signature of the instructor, (5) a brief statement of the reason(s) for recording the incomplete grade, and (6) an adequate guide for removal of the incomplete grade. In the instructor’s absence, the division chairperson (or designee), shall forward to the college president (or designee) the appropriate letter grade to replace the incomplete grade.
W: represents a withdrawal from class without completing course requirements. A student may officially withdraw from any class up to and including the date of mid-term with a W grade. After the date of mid-term and through the last class of the semester or session, any student may officially request to withdraw from a course and receive a W which may be given at the discretion of the instructor. Each instructor shall state on the first or second class meeting the factors to be used in determining if a student will be allowed to withdraw during the discretionary period. An instructor shall not assign a student a W for a class unless the student has officially withdrawn from that class in a manner prescribed by the college. The grade of W may be assigned by the College Appeals Board in cases involving a violation of student academic rights or for academic offenses.

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

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

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

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

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

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

Academic Probation, Academic Suspension, and Reinstatement

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

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

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

Repeating a Course

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

Final Exams

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

Dean’s List

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

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

Policies Related to Graduation

Graduation Requirements

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

Additional Requirements

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

Diplomas: students must satisfactorily complete a minimum of 36 hours including the general education requirements as specified by the KCTCS Board of Regents Policies 4.11 and 4.12 and program requirements, with a cumulative grade point average of at least 2.0.

Certificates: students must satisfactorily complete an approved curriculum with a grade point average of at least 2.0 in the courses required for the certificate.

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

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

Graduation With Honors

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

Multiple Associate Degrees

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

Kentucky Community and Technical College Guarantee

KCTCS colleges offer employers of graduates the following guarantee:

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

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

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

<table>
<thead>
<tr>
<th>General Education</th>
<th>AA (2401015000)</th>
<th>AS (2401016000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Requirements</td>
<td></td>
<td></td>
</tr>
<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>3 credit hours</td>
<td>6 credit hours</td>
</tr>
<tr>
<td>One science course must include a laboratory experience.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>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 Natural Sciences</td>
<td>3 credit hours</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>Subtotal General Education Core</td>
<td>33 credit hours</td>
<td>33 credit hours</td>
</tr>
</tbody>
</table>

Associate in Arts Requirements 6 credit hours

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

Associate in Science Requirements 6 credit hours

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

Electives 21 credit hours 21 credit hours

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

Total Credit Hours 60 Credit Hours 60 Credit Hours

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

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

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

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

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

Associate in Fine Arts (AFA)

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

General Education Component:

| Written and Oral Communications | 9 credit hours |
| Students who complete ENG 105 must take an additional 3 credit hours of General Education from any of the General Education categories. |
| Arts and Humanities | 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 | 3 credit hours |
| Natural Sciences | 3 credit hours |
| 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 at http://legacy.kctcs.edu/catalog/.

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

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

General Education Component 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
   - 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 Component 30 - 54

Total Credit Hours 36 - 60

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

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

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

Certificate

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

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

Certificates will be applicable toward at least one associate degree.

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

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

**Foundation Skills**

Basic Skills: reading, writing, arithmetic and mathematics, listening, and speaking;

Thinking Skills: thinking creatively, making decisions, solving problems, knowing how to learn, and reasoning;

Personal Qualities: individual responsibility, self-esteem, sociability, self-management, and integrity/honesty.

**Competencies**

Resources: allocating time, money, materials, space, and staff;

Interpersonal Skills: working on teams, teaching others, serving customers, leading, negotiating, and working well with people from culturally diverse backgrounds;

Information: acquiring and evaluating data, organizing and maintaining files, interpreting and communicating, and using computers to process information;

Systems: understanding social, organizational, and technological systems, monitoring and correcting performance, and designing or improving systems;

Technology: selecting equipment and tools, applying technology to specific tasks, and maintaining and troubleshooting technologies.

**Total Credit Hours**

12 – 30

Graduation requirements: (1) minimum grade of C in each course required for the certificate and (2) minimum of 25% of certificate requirements earned within KCTCS.

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

**Continuing Education Certificate**

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

**Specialized Training**

**Adult Agriculture**

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

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

**Continuing Education Courses**

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

**Customized Industry Training**

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

**Fire/Rescue Training**

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

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

**Fire Rescue Training for Business, Industry and Municipal Government**

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

**Emergency Medical Technician Certificate**

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

For specific program information see page 155.
State Fire Rescue Training Coordinators and Contact Information

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

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

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

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

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

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

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

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

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

Big Sandy Community & Technical College (Area 11)
Greg Gray, Coordinator
45 Gorman Hollow Road
Hazard, KY  41701
(800#) 888-234-6759
greg.gray@kctcs.edu
Counties: Breathitt, Knott, Lee, Leslie, Letcher, Owsley, Perry, Wolfe

Hazard Community & Technical College (Area 12)
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/Laurel Campus (Area 13)
Chantz Mcpeek, Coordinator
1791 Barbourville Street
London, KY  40741
(800#) 888-234-0100
chantz.mcpeek@kctcs.edu
Counties: Adair, Casey, Clinton, Cumberland, Green, McCrory, Pulaski, Russell, Taylor, Wayne

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, McCrory, Pulaski, Russell, Taylor, Wayne

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

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

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

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

General Education Competencies:

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

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

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

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

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

Written Communication

Diploma TEC 200 Technical Communications
OST 108 Editing Skills for Office Professionals
Any Writing course approved for the AAS, AA, or AS
AAS, AA, AS, AFA
ENG 101 Writing I ............................................ 3
ENG 102 Writing II ........................................... 3
ENG 105 Writing: An Accelerated Course ................ 3

Oral Communications

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

Quantitative Reasoning

Diploma
OST 213 Business Calculations for the Office Professional ... 3
Any mathematics course approved for the AAS, AA, AS, or AFA
AAS
MAT 105 Business Mathematics ................................ 3
MAT 110 Applied Mathematics .................................. 3
MAT 116 Technical Mathematics ................................ 3
MAT 126 Technical Algebra and Trigonometry .............. 3
Any mathematics course listed below
AAS, AS &
MAT 141 Liberal Arts Mathematics ................................ 3
AFA
MAT 146 Contemporary College Mathematics ................ 3
MAT 150 College Algebra ...................................... 3
MAT 151 Introduction to Applied Statistics ................ 3
MAT 154 Trigonometry ......................................... 2
MAT 155 Trigonometry ......................................... 3
MAT 159 Analytic Geometry and Trigonometry .............. 4
MAT 160 Precalculus .......................................... 5
MAT 161 Statistics and Algebra ............................... 3

MAT 165 Finite Mathematics and its Applications .......... 3
MAT 170 Brief Calculus with Applications ................... 3
MAT 171 Precalculus .......................................... 5
MAT 174 Calculus I ........................................... 4
MAT 175 Calculus I ........................................... 5
MAT 184 Calculus II ........................................... 4
MAT 185 Calculus II ........................................... 5
MAT 206 Mathematics for Elementary and Middle School Teachers II.............................................. 3
MAT 261 Introduction to Number Theory ...................... 3
MAT 275 Calculus III ........................................... 4
MAT 285 Differential Equations ................................ 3
PHI 250 Symbolic Logic ........................................ 3
STA 151 Introduction to Applied Statistics ................... 3
STA 210 Statistics: A Force in Human Judgment ............ 3
STA 220 Statistics ............................................. 3
STA 251 Applied Statistics .................................... 3

Natural Sciences

Diploma PHX 150 Introductory Physics .......................... 3
Any Science course approved for the AAS, AA, AS, or AFA
AAS, AA, AFA, AS
ANA 209 Principles of Human Anatomy ....................... 3
AST 101 Frontiers of Astronomy .................................. 3
AST 153/BIO 153 Astrobiology .................................. 3
AST 191 The Solar System ...................................... 3
AST 192 Stars, Galaxies, and the Universe ................... 3
AST 195 Introductory Astronomy Laboratory* ................ 1
BIO 112 Introduction to Biology .................................. 3
BIO 113 Introduction to Biology Lab* ......................... 1
BIO 114 Major Discoveries in Biology ......................... 3
BIO 115 Biology Laboratory I* .................................. 1
BIO 116 Biology II .............................................. 3
BIO 117 Biology Laboratory II* .................................. 1
BIO 118 Microbes and Society .................................. 3
BIO 120 Human Ecology ........................................ 3
BIO 121 Introduction to Ecology Laboratory* ................ 1
BIO 122 Introduction to Conservation Biology ............... 3
BIO 124 Principles of Ecology .................................. 3
BIO 130 Aspects of Human Biology ............................. 3
BIO 133 Basic Anatomy and Physiology with Laboratory* .... 4
BIO 137 Human Anatomy and Physiology I* .................. 4
BIO 139 Human Anatomy and Physiology II* ................ 4
BIO 140 Botany .................................................. 3
BIO 141 Botany with Laboratory* ................................ 4
BIO 142 Zoology .................................................. 3
BIO 143 Zoology with Laboratory* ................................ 4
BIO 144 Insect Biology ........................................... 3
BIO 145 Insect Biology Laboratory* ............................ 1
BIO 150 Principles of Biology I .................................. 3
BIO 151 Principles of Biology Laboratory I* .................. 2
BIO 152 Principles of Biology II .................................. 3
BIO 153 Principles of Biology Laboratory II* ................. 2
BIO 155/AST 155 Astrobiology .................................. 3
BIO 209 Introductory Microbiology Lab* ...................... 2
BIO 220 The Genetic Perspective .................................. 3
BIO 225 Medical Microbiology* .................................. 4
BIO 226 Principles of Microbiology ............................... 3
BIO 227 Principles of Microbiology with Laboratory* .......... 4
CHE 120 Chemistry in Society ................................... 3
CHE 125 The Joy of Chemistry Laboratory* .................. 1
CHE 130 Introductory General and Biological Chemistry .... 3
CHE 135 Introductory General and Biological Chemistry Lab* .... 1
CHE 140 Introductory General Chemistry ..................... 3
CHE 145 Introductory General Chemistry Laboratory* .......... 1
CHE 150 Introduction to Organic and Biological Chemistry .... 3
CHE 155 Intro to Organic and Biological Chemistry Laboratory* .... 1
CHE 170 General College Chemistry I ......................... 4
CHE 175 General College Chemistry Laboratory I* ............ 1
CHE 180 General College Chemistry II* ....................... 4
CHE 185 General College Chemistry Laboratory II* .......... 1
CHE 230 Analytical Chemistry* ................................... 5
CHE 270 Organic Chemistry I .................................... 3
CHE 275 Organic Chemistry Laboratory I* ..................... 2
CHE 280 Organic Chemistry II .................................... 3

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<th>Course Code</th>
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<tr>
<td>CHE 285</td>
<td>Organic Chemistry Laboratory II*</td>
</tr>
<tr>
<td>EST 150</td>
<td>Introductory Ecology*</td>
</tr>
<tr>
<td>EST 160</td>
<td>Hydrological Geology</td>
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<tr>
<td>EST 161</td>
<td>Hydrologic Geology Laboratory*</td>
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<tr>
<td>GEO 130</td>
<td>Earth's Physical Environment</td>
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<td>GEO 251</td>
<td>Weather and Climate</td>
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<td>GEO 280</td>
<td>Environmental Science*</td>
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<td>GLY 101</td>
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<td>GLY 110</td>
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<td>GLY 111</td>
<td>Laboratory for Physical Geology*</td>
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<tr>
<td>GLY 112</td>
<td>Laboratory for Historical Geology*</td>
</tr>
<tr>
<td>GLY 114</td>
<td>Environmental Geology Laboratory*</td>
</tr>
<tr>
<td>GLY 125</td>
<td>Geology of the National Parks &amp; Monuments</td>
</tr>
<tr>
<td>GLY 130</td>
<td>Dinosaurs and Disasters: A Brief History of the Vertebrates</td>
</tr>
<tr>
<td>GLY 131</td>
<td>Dinosaur Laboratory*</td>
</tr>
<tr>
<td>GLY 140</td>
<td>Introduction to Oceanography</td>
</tr>
<tr>
<td>GLY 220</td>
<td>Principles of Physical Geology*</td>
</tr>
<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>
<tr>
<td>PHY 162</td>
<td>Introductory Physics Laboratory II*</td>
</tr>
<tr>
<td>PHY 171</td>
<td>Applied Physics I*</td>
</tr>
<tr>
<td>PHY 172</td>
<td>Physics for Health Sciences*</td>
</tr>
<tr>
<td>PHY 201</td>
<td>College Physics I*</td>
</tr>
<tr>
<td>PHY 202</td>
<td>College Physics Lab I*</td>
</tr>
<tr>
<td>PHY 203</td>
<td>College Physics II*</td>
</tr>
<tr>
<td>PHY 204</td>
<td>College Physics Lab II*</td>
</tr>
<tr>
<td>PHY 231</td>
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<td>General University Physics II</td>
</tr>
<tr>
<td>PHY 241</td>
<td>General University Physics I Laboratory*</td>
</tr>
<tr>
<td>PHY 242</td>
<td>General University Physics II Laboratory*</td>
</tr>
<tr>
<td>SCI 110</td>
<td>Science and Society</td>
</tr>
<tr>
<td>SCI 259</td>
<td>Scientific Investigations</td>
</tr>
</tbody>
</table>

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

### Social and Behavioral Sciences

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FFM 100</td>
<td>Personal Financial Management</td>
</tr>
<tr>
<td>WPP 200</td>
<td>Workplace Principles</td>
</tr>
<tr>
<td>AAS, AA, AFA</td>
<td>Any Social Interaction course approved for the AAS, AA, or AFA</td>
</tr>
</tbody>
</table>

**Diploma**

**EFM 100** Personal Financial Management

**WPP 200** Workplace Principles

**AAS, AA, AFA** Any Social Interaction course approved for the AAS, AA, or AFA

**AGR 101** The Economics of Food and Agriculture

**ANT 101** Introduction to Anthropology

**ANT 130/REL 101** Introduction to Comparative Religion

**ANT 160** Cultural Diversity in the Modern World

**ANT 220** Introduction to Cultural Anthropology

**ANT 221** Native People of North America

**ANT 223** Culture Change and Globalization

**ANT 235** Food and Culture

**ANT 240** Introduction to Archaeology

**ANT 241** Origins of Old World Civilizations

**ANT 242** Origins of New World Civilizations

**COM 101** Introduction to Communications

**COM 249** Mass Media Communication

**COM 254** Intro to Intercultural Communications

**ECO 101** Contemporary Economic Issues

**ECO 150** Introduction to Global Economics

**ECO 201** Principles of Microeconomics

**ECO 202** Principles of Macroeconomics

**FLK 267** Introduction to Folk Studies

**HIS 101** World Civilization I

**HIS 102** World Civilization II

**HIS 104** A History of Europe Through the Mid-Seventeenth Century

**HIS 105** A History of Europe from the Mid-Seventeenth Century to the Present

**HIS 106** Western Culture: Science and Technology I

**HIS 107** Western Culture: Science and Technology II

**HIS 108** History of the U.S. Through 1865

**HIS 109** History of the U.S. Since 1865

**HIS 120** The World at War 1939-45

**HIS 202** History of British People to the Restoration

**HIS 203** History of British People Since the Restoration

**HIS 206** History of Colonial Latin America

**HIS 207** History of Modern Latin America 1500 to Present

**HIS 215** Historical Perspectives on Prisons and Police Work

**HIS 220** Native American History: Pre-Contact to 1865

**HIS 221** Native American History: 1865 to Present

**HIS 240** History of Kentucky

**HIS 247** History of Islam and Middle East Peoples, 300-1250 A.D.

**HIS 248** History of Islam and Middle East Peoples, 1250 to Present

**HIS 255** 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 270** Ancient Europe

**HIS 271** Medieval Europe

**HIS 295** East Asia to 1800

**HIS 296** History of Asia II

---

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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLK 267</td>
<td>Introduction to Folk Studies</td>
</tr>
<tr>
<td>HIS 101</td>
<td>World Civilization I</td>
</tr>
<tr>
<td>HIS 102</td>
<td>World Civilization II</td>
</tr>
<tr>
<td>HIS 104</td>
<td>A History of Europe Through the Mid-Seventeenth Century</td>
</tr>
<tr>
<td>HIS 105</td>
<td>A History of Europe from the Mid-Seventeenth Century to the Present</td>
</tr>
<tr>
<td>HIS 106</td>
<td>Western Culture: Science and Technology I</td>
</tr>
<tr>
<td>HIS 107</td>
<td>Western Culture: Science and Technology II</td>
</tr>
<tr>
<td>HIS 108</td>
<td>History of the U.S. Through 1865</td>
</tr>
<tr>
<td>HIS 109</td>
<td>History of the U.S. Since 1865</td>
</tr>
<tr>
<td>HIS 120</td>
<td>The World at War 1939-45</td>
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<td>HIS 202</td>
<td>History of British People to the Restoration</td>
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<td>HIS 203</td>
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<td>HIS 206</td>
<td>History of Colonial Latin America</td>
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<td>HIS 207</td>
<td>History of Modern Latin America 1500 to Present</td>
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<td>HIS 215</td>
<td>Historical Perspectives on Prisons and Police Work</td>
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<td>HIS 221</td>
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<td>HIS 240</td>
<td>History of Kentucky</td>
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<td>HIS 247</td>
<td>History of Islam and Middle East Peoples, 300-1250 A.D.</td>
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<tr>
<td>HIS 248</td>
<td>History of Islam and Middle East Peoples, 1250 to Present</td>
</tr>
<tr>
<td>HIS 255</td>
<td>History of Sub-Saharan Africa</td>
</tr>
<tr>
<td>HIS 260</td>
<td>African American History to 1865</td>
</tr>
<tr>
<td>HIS 261</td>
<td>African American History 1865 - Present</td>
</tr>
<tr>
<td>HIS 265</td>
<td>History of Women in America</td>
</tr>
<tr>
<td>HIS 270</td>
<td>Ancient Europe</td>
</tr>
<tr>
<td>HIS 271</td>
<td>Medieval Europe</td>
</tr>
<tr>
<td>HIS 295</td>
<td>East Asia to 1800                                3</td>
</tr>
<tr>
<td>HIS 296</td>
<td>History of Asia II                               3</td>
</tr>
</tbody>
</table>
PHI 160 Philosophy of Religion……………………………………….3
PHI 180 Animal and Environmental Ethics …………………….3
PHI 200 Professional Responsibility ……………………..3
PHI 260 History of Philosophy I: From Greek Beginnings to the Middle Ages ……………………………….3
PHI 270 History of Philosophy II: From the Renaissance to the Present Era ……………………………….3
REL 101 Introduction to Religious Studies 2 …………………….3
REL 120 Introduction to the Old Testament …………………….3
REL 121 Introduction to the New Testament …………………….3
REL 130/ANT 130 Introduction to Comparative Religion …………………….3
REL 150 Comparative Ethics of Major World Religions …………………….3
REL 160 Religious Expressions of Forgiveness and Justice …………………….3
REL 170 Philosophy of Religion …………………….3
THA 101 Introduction to Theatre: Principles and Practices …………………….3
THA 200 Introduction to Dramatic Literature …………………….3
THA 283 American Theatre ……………………………….3
WGS 201 Introduction to Women’s and Gender Studies in the Arts and Humanities ……………………………….3

Other Degree and/or Credential Requirements

College Success Courses

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

FYE 100 Strategies for College Success
FYE 105 Achieving Academic Success

Cultural Studies Courses

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

Social and Behavioral Sciences

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

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

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

Digital Literacy

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

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

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

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

Approved KCTCS Digital Literacy courses

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

Approved KCTCS programs with Digital Literacy status

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

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

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

Course Transitions

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

Employment and Earnings Information

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

<table>
<thead>
<tr>
<th>College Code</th>
<th>College Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASC</td>
<td>Ashland Community and Technical College</td>
</tr>
<tr>
<td>BLC</td>
<td>Bluegrass Community and Technical College</td>
</tr>
<tr>
<td>BSC</td>
<td>Big Sandy Community and Technical College</td>
</tr>
<tr>
<td>ELC</td>
<td>Elizabethtown Community and Technical College</td>
</tr>
<tr>
<td>GTW</td>
<td>Gateway Community and Technical College</td>
</tr>
<tr>
<td>HZC</td>
<td>Hazard Community and Technical College</td>
</tr>
<tr>
<td>HEC</td>
<td>Henderson Community College</td>
</tr>
<tr>
<td>HPC</td>
<td>Hopkinsville Community College</td>
</tr>
<tr>
<td>JFC</td>
<td>Jefferson Community and Technical College</td>
</tr>
<tr>
<td>MDC</td>
<td>Madisonville Community College</td>
</tr>
<tr>
<td>MYC</td>
<td>Maysville Community and Technical College</td>
</tr>
<tr>
<td>OWC</td>
<td>Owensboro Community and Technical College</td>
</tr>
<tr>
<td>SMC</td>
<td>Somerset Community College</td>
</tr>
<tr>
<td>SKY</td>
<td>Southcentral Kentucky Community and Technical College</td>
</tr>
<tr>
<td>SEC</td>
<td>Southeast Kentucky Community and Technical College</td>
</tr>
<tr>
<td>WKC</td>
<td>West Kentucky Community and Technical College</td>
</tr>
</tbody>
</table>
Kentucky Community and Technical College System’s (KCTCS) sixteen colleges deliver quality online courses and programs through two ways to learn: Learn by Term and Learn on Demand.

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

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

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

Online Programs

KCTCS Online Learn by Term – Semester-based Online Programs

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

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

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

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

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

KCTCS Online Learn on Demand Programs

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

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

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

Advanced Integrated Manufacturing

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

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

Certificate

Manufacturing Process Operations – 4805013019

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIM 100</td>
<td>Principles of Advanced Integrated Manufacturing</td>
<td>3</td>
</tr>
<tr>
<td>AIM 110</td>
<td>Manufacturing Processes and Materials</td>
<td>3</td>
</tr>
<tr>
<td>AIM 120</td>
<td>Introduction to Modern Plastics Manufactur</td>
<td>3</td>
</tr>
<tr>
<td>AIT 1001</td>
<td>Basic Electrical Knowledge</td>
<td>2</td>
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<tr>
<td>AIT 1003</td>
<td>Hydraulic/Pneumatics Fundamentals</td>
<td>1</td>
</tr>
<tr>
<td>CAD 100</td>
<td>Introduction to Computer Aided Design</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Technical Elective (Approved by Program Coordinator)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

Plastics Processing – 4805013029

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIM 120</td>
<td>Introduction to Modern Plastics Manufacturing</td>
<td>3</td>
</tr>
<tr>
<td>AIT 200</td>
<td>Process Management and Quality Control</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>7</strong></td>
</tr>
</tbody>
</table>

Advanced Integrated Technology

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

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

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

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

Associate in Applied Science

Advanced Integrated Technology - 1504997019

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

Total Core:

<table>
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<th>Title</th>
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<tbody>
<tr>
<td>AIT 100</td>
<td>Power Generation &amp; Utilization</td>
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</tr>
<tr>
<td>AIT 110</td>
<td>Power Distribution Systems</td>
<td>3</td>
</tr>
<tr>
<td>AIT 120</td>
<td>Equipment Installation</td>
<td>3</td>
</tr>
<tr>
<td>AIT 130</td>
<td>Measurement and Instrumentation</td>
<td>4</td>
</tr>
<tr>
<td>AIT 140</td>
<td>Industrial Controls I</td>
<td>4</td>
</tr>
<tr>
<td>AIT 150</td>
<td>Industrial Controls II</td>
<td>4</td>
</tr>
<tr>
<td>AIT 210</td>
<td>Equipment Maintenance</td>
<td>4</td>
</tr>
<tr>
<td>AIT 270</td>
<td>Introduction to Robotics</td>
<td>2</td>
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<tr>
<td></td>
<td>and Programmable Logic Controllers</td>
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<tr>
<td></td>
<td><strong>Total</strong></td>
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</table>
Choose 16 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Advanced Integrated Technology Program Coordinator.

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

**Certificates**

**Ammonia Refrigeration Fundamentals – 1504993160**

(Offered at MDC, MYC)

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**Industrial Refrigeration – 1504993140**

(Offered at MDC, MYC, SMC)

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<tr>
<td>AIT 140</td>
<td>Basic Electrical Knowledge</td>
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<td>Electrical Power Distribution</td>
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<tr>
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**Multi-Skilled Maintenance Apprenticeship – 1504993150**

(Offered at MDC)

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<td>AIT 1302</td>
<td>Integrated Process Control</td>
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<tr>
<td>AIT 1401</td>
<td>Basic Electrical Controls</td>
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<td>AIT 1501</td>
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**Engineering Controls – 1504993120**

(Offered at ASC, MDC)

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**Industrial Mechanic – 1504993180**

(Offered at MDC, MYC)

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<td>Piping, Pneumatic, &amp; Installation</td>
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<td>AIT 1203</td>
<td>Mechanical Installation</td>
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<td>Basic Hydraulic Controls</td>
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<td>Predictive/Preventive Maintenance and Lubrication</td>
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**Multi-Skilled Technician – 1504993110**

(Offered at ASC, MDC, MYC)

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</table>
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.

**African American Studies Certificate - 0501013029**

(Offered at JFC)

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*Elective*          

**Total Credits**  18

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

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**Total Credits**  18

Advanced Manufacturing

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

**Certificate**

Fundamentals of Advanced Manufacturing & Machining - 1506133099

(Offered at GTW)

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<td>CMM 112</td>
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**Total Credits**  16-18

Fundamentals of Advanced Manufacturing & Mechatronics - 1506133089

(Offered at GTW)

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**Total Credits**  18-20

Fundamentals of Advanced Manufacturing & Quality Control - 1506133110

(Offered at GTW)

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**Total Credits**  16-18

Agricultural Studies

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

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

The Production Agriculture Operations track provides training and knowledge in large scale, commercial production agriculture businesses. Students will gain skills in crop management, agricultural 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:**

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<td>BIO 150</td>
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<td>AGR 101</td>
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**Total Credits**  15

**Subtotal**  18
## Agriculture

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

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

### Associate in Applied Science
**Agriculture - 0103017039**
*(Offered at ELC, HEC, HPC, MDC)*

**General Education:**

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<tr>
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**Diploma**

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

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**Technical Core:**

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<td>Introduction to Plants/Crop Production</td>
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**Total Credit Hours**

40-43

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### Food and Farm Management Track – 010301703
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**Track Subtotal**

19

**Total Credit Hours**

65-68

### Production Agriculture Operations Track – 010301704
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**Track Subtotal**

19

**Total Credit Hours**

65-68

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## Diploma

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

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<td>Introduction to Plants/Crop Production</td>
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**Total Credit Hours**

60-61
Agriculture Education Track—010301706
   (Offered at ELC, HEC, HPC)

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Agriculture Technology Track—010301707
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Sustainable Agriculture Track—010301710
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Diploma
Agriculture - 0103014039
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Agriculture Technology Track—010301403
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Agronomy Track—010301404
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Horticulture Track—010301405
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<tbody>
<tr>
<td>AGR 160</td>
<td>Horticulture Science</td>
<td>3</td>
</tr>
<tr>
<td>AGR 180</td>
<td>Agricultural Internship I</td>
<td>2</td>
</tr>
<tr>
<td>AGR 260</td>
<td>Introduction to Sustainable Agriculture</td>
<td>3</td>
</tr>
<tr>
<td>AGR 270</td>
<td>Introduction to Organic Agriculture</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Electives</strong></td>
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</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
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</tbody>
</table>
**Certificates**

**Agriculture Business/Marketing – 0103013039**  
*(Offered at HEC, HPC, MDC)*

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGR 180</td>
<td>Agricultural Internship I</td>
<td>2</td>
</tr>
<tr>
<td>BAS 120</td>
<td>Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>ECO 201</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECO 202</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

**Agriculture Education – 0103013049**  
*(Offered at ELC, HEC, HPC, MDC)*

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGR 150</td>
<td>Agricultural Power OR</td>
<td>3</td>
</tr>
<tr>
<td>AGR 160</td>
<td>Horticulture Science</td>
<td>3</td>
</tr>
<tr>
<td>AGR 180</td>
<td>Agricultural Internship I</td>
<td>2</td>
</tr>
<tr>
<td>AGR 115</td>
<td>Agriculture Maintenance OR</td>
<td>3</td>
</tr>
<tr>
<td>AGR 170</td>
<td>Introduction to Equipment, Machines, and Engines</td>
<td>3</td>
</tr>
<tr>
<td>AGR 220</td>
<td>Electives in the Agricultural Environment</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>14</strong></td>
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</tbody>
</table>

**Agriculture Technology – 0103013059**  
*(Offered at HEC, HPC, HPC, MDC)*

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGR 150</td>
<td>Agricultural Power</td>
<td>3</td>
</tr>
<tr>
<td>AGR 180</td>
<td>Agricultural Internship I</td>
<td>2</td>
</tr>
<tr>
<td>AGR 115</td>
<td>Agriculture Maintenance OR</td>
<td>3</td>
</tr>
<tr>
<td>AGR 170</td>
<td>Introduction to Equipment, Machines, and Engines</td>
<td>(3)</td>
</tr>
<tr>
<td>AGR 220</td>
<td>Electives in the Agricultural Environment</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

**Agronomy – 0103013069**  
*(Offered at HEC, HPC, MDC)*

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGR 135</td>
<td>Herbaceous Plant Production</td>
<td>3</td>
</tr>
<tr>
<td>AGR 215</td>
<td>Weed Management</td>
<td>3</td>
</tr>
<tr>
<td>AGR 245</td>
<td>Pest Management</td>
<td>3</td>
</tr>
<tr>
<td>AGR 180</td>
<td>Agricultural Internship I</td>
<td>2</td>
</tr>
<tr>
<td>AGR 215</td>
<td>Electives</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

**Horticulture – 0103013079**  
*(Offered at MDC)*

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGR 160</td>
<td>Horticulture Science</td>
<td>3</td>
</tr>
<tr>
<td>AGR 180</td>
<td>Agricultural Internship I</td>
<td>2</td>
</tr>
<tr>
<td>HRT 110</td>
<td>Nursery Management</td>
<td>4</td>
</tr>
<tr>
<td>HRT 210</td>
<td>Landscape Design OR</td>
<td>4</td>
</tr>
<tr>
<td>HRT 240</td>
<td>Greenhouse Management</td>
<td>(4)</td>
</tr>
<tr>
<td>AGR 215</td>
<td>Electives</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

**Sustainable Agriculture – 0103013089**  
*(Offered at BSC, ELC, HEC, HPC, MDC)*

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGR 160</td>
<td>Horticulture Science</td>
<td>3</td>
</tr>
<tr>
<td>AGR 180</td>
<td>Agricultural Internship I</td>
<td>2</td>
</tr>
<tr>
<td>AGR 260</td>
<td>Introduction to Sustainable Agriculture</td>
<td>3</td>
</tr>
<tr>
<td>AGR 270</td>
<td>Introduction to Organic Agriculture</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

**Air Conditioning Technology**

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

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

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

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

**Associate in Applied Science**

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

**General Education:**

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

**Technical Courses:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACR 100</td>
<td>Digital Literacy</td>
<td>3</td>
</tr>
<tr>
<td>ACR 101</td>
<td>Refrigeration Fundamentals Lab</td>
<td>2</td>
</tr>
<tr>
<td>ACR 102</td>
<td>HVAC Electricity AND</td>
<td>3</td>
</tr>
<tr>
<td>ACR 103</td>
<td>HVAC Electric Lab OR</td>
<td>2</td>
</tr>
<tr>
<td>ACR 130</td>
<td>Comparable Electrical Course*</td>
<td>(4-5)</td>
</tr>
<tr>
<td>ACR 131</td>
<td>Electrical Components</td>
<td>3</td>
</tr>
<tr>
<td>ACR 170</td>
<td>Heat Load/Duct Design</td>
<td>3</td>
</tr>
<tr>
<td>ACR 250</td>
<td>Cooling and Dehumidification</td>
<td>3</td>
</tr>
<tr>
<td>ACR 251</td>
<td>Cooling and Dehumidification Lab</td>
<td>2</td>
</tr>
<tr>
<td>ACR 260</td>
<td>Heating and Humidification</td>
<td>3</td>
</tr>
<tr>
<td>ACR 262</td>
<td>Heating and Humidification Lab</td>
<td>2</td>
</tr>
<tr>
<td>ACR 270</td>
<td>Heat Pump Application</td>
<td>3</td>
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<tr>
<td>ACR 271</td>
<td>Heat Pump Application</td>
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<tr>
<td>ACR 272</td>
<td>Heat Pump Application</td>
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<tr>
<td><strong>Total</strong></td>
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</table>

**Total Credits**  
60-66

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

**Heating, Ventilation, and Air Conditioning Mechanic - 4702014009**  
*(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)*

#### General Education:

<table>
<thead>
<tr>
<th>Area 1 = Written Communication, Oral Communications, OR Humanities/Heritage</th>
<th>Area 2 = Social/Behavioral Sciences, Natural Sciences OR Quantitative Reasoning</th>
<th><strong>Subtotal Credits</strong></th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ACR 100</strong> Refrigeration Fundamentals</td>
<td></td>
<td></td>
<td>0-3</td>
</tr>
<tr>
<td><strong>ACR 101</strong> Refrigeration Fundamentals Lab</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td><strong>ACR 102</strong> HVAC Electricity AND</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td><strong>ACR 103</strong> HVAC Electricity Lab OR</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td><strong>Comparable Electrical Course</strong></td>
<td></td>
<td></td>
<td>(4-5)</td>
</tr>
<tr>
<td><strong>ACR 130</strong> Electrical Components</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>ACR 131</strong> Electrical Components Lab</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td><strong>ACR 170</strong> Heat Load/Duct Design OR</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>ACR 209</strong> Manual N Commercial Load Calculations &amp; Design</td>
<td></td>
<td></td>
<td>(4)</td>
</tr>
<tr>
<td><strong>ACR 250</strong> Cooling and Dehumidification</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>ACR 251</strong> Cooling and Dehumidification Lab</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td><strong>ACR 260</strong> Heating and Humidification</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>ACR 262</strong> Heating and Humidification Lab</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td><strong>ACR 270</strong> Heat Pump Application AND</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>ACR 271</strong> Heat Pump Application Lab OR</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td><strong>ACR 270</strong> Commercial HVAC Systems</td>
<td></td>
<td></td>
<td>(5)</td>
</tr>
<tr>
<td><strong>ACR 291</strong> Special Problems OR</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td><strong>ACR 298</strong> Practicum</td>
<td></td>
<td></td>
<td>(2)</td>
</tr>
<tr>
<td><strong>Electives</strong></td>
<td></td>
<td></td>
<td>(9-12)</td>
</tr>
</tbody>
</table>

**Subtotal Credits** 42-51

**Total Credits** 48-57

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**Comparable Electrical Courses:**

| EET 154 | Electrical Construction I AND | (2) |
| EET 155 | Electrical Construction I Lab OR | (2) |
| EET 112 | Basic Electrical Theory: AND | (3) |
| EET 113 | Basic Electrical Theory Lab OR | (1) |
| ELT 110 | Circuits I OR | (5) |
| IMT 110 | Industrial Maintenance Electrical Principles AND | (3) |
| IMT 111 | Industrial Maintenance Electrical Principles Lab | (2) |
| OR Consent of the instructor |  |  |  |

**Certificates**

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

| ACR 100 | Refrigeration Fundamentals | 3 |
| ACR 101 | Refrigeration Fundamentals Lab | 2 |
| ACR 102 | HVAC Electricity AND | 3 |
| ACR 103 | HVAC Electricity Lab | 2 |
| ACR 206 | Boilers | 5 |
| ACR 207 | Commercial HVAC Systems | 5 |

**Total Credits** 20

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

| ACR 100 | Refrigeration Fundamentals | 3 |
| ACR 101 | Refrigeration Fundamentals Lab | 2 |
| ACR 102 | HVAC Electricity AND | 3 |
| ACR 103 | HVAC Electricity Lab OR | 2 |
| ACR 208 | Chillers | 5 |
| ACR 209 | Manual N Load Calculation & Design | 4 |

**Total Credits** 19

---

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

| ACR 100 | Refrigeration Fundamentals | 3 |
| ACR 101 | Refrigeration Fundamentals Lab | 2 |
| ACR 102 | HVAC Electricity AND | 3 |
| ACR 103 | HVAC Electricity Lab OR | 2 |
| ACR 130 | Comparable Electrical Course* | (4-5) |
| ACR 131 | Electrical Components | 3 |
| ACR 170 | Heat Load/Duct Design | 3 |
| ACR 250 | Cooling and Dehumidification | 3 |
| ACR 251 | Heating and Humidification | 2 |
| ACR 260 | Heating and Humidification Lab | 2 |
| ACR 270 | Heat Pump Application | 3 |
| ACR 271 | Heat Pump Application Lab | 2 |
| ACR 390 | Journeyman Preparation | 3 |

**Total Credits** 35-36

---

**Environmental Control System Servicer - 470201309**  
*(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWG, SEC, SKY, SMC, WKC)*

| ACR 100 | Refrigeration Fundamentals | 3 |
| ACR 101 | Refrigeration Fundamentals Lab | 2 |
| ACR 102 | HVAC Electricity AND | 3 |
| ACR 103 | HVAC Electricity Lab OR | 2 |
| ACR 130 | Comparable Electrical Course* | (4-5) |
| ACR 131 | Electrical Components | 3 |
| ACR 250 | Cooling and Dehumidification | 3 |
| ACR 251 | Heating and Humidification | 2 |
| ACR 260 | Heating and Humidification | 3 |
| ACR 262 | Heating and Humidification Lab | 2 |

**Total Credits** 24-25

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**Environmental System Repair Helper - 4702013069**  
*(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWG, SEC, SKY, SMC, WKC)*

| ACR 100 | Refrigeration Fundamentals | 3 |
| ACR 101 | Refrigeration Fundamentals Lab | 2 |
| ACR 102 | HVAC Electricity AND | 3 |
| ACR 103 | HVAC Electricity Lab OR | 2 |
| ACR 130 | Electrical Components AND | (3) |
| ACR 131 | Electrical Components Lab OR | (2) |
| ACR 130 | Comparable Electrical Course* | (4-5) |

**Total Credits** 9-10

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**Refrigeration Mechanic - 4702013059**  
*(Offered at ASC, BLC, BSC, ELC, HPC, HZC, JFC, MDC, MYC, OWG, SEC, SMC, WKC)*

| ACR 100 | Refrigeration Fundamentals | 3 |
| ACR 101 | Refrigeration Fundamentals Lab | 2 |
| ACR 102 | HVAC Electricity AND | 3 |
| ACR 103 | HVAC Electricity Lab OR | 2 |
| ACR 130 | Comparable Electrical Course* | (4-5) |
| ACR 131 | Electrical Components | 3 |
| ACR 200 | Commercial Refrigeration | 3 |
| ACR 201 | Commercial Refrigeration Lab | 2 |
| ACR 210 | Ice Machines | 3 |
| ACR 250 | Cooling and Dehumidification | 3 |
| ACR 251 | Heating and Humidification Lab | 2 |

**Total Credits** 27-28
Air Conditioning Technical Electives**:
This list is not all-inclusive. Other courses may be taken with approval of the program instructor/advisor.
ACR 112 Sheet Metal Fabrication Lab 3
ACR 113 Sheet Metal Fabrication Lab 2
ACR 290 Journeyman Preparation 3
ACR 291 Special Problems I 2
ACR 293 Special Problems II 1
ACR 295 Special Problems III 2
ACR 298 Practicum 2
ACR 299 Cooperative Education Program 2
BAS 160 Introduction to Business 3
FPX 100 Fluid Power 3
FPX 101 Fluid Power Lab 2
ETT 110 Voice and Data Installer Level I 4
ETT 114 Voice and Data Installer Level II 4
ETT 116 Fiber Optics Systems 3
ETT 118 Residential Network Wiring 3
ETT 120 Project Management 3
ETT 122 Voice and Data Installer Technician 2
ETT 123 Voice and Data Installer Technician Lab 2
EET 102 Advanced Mathematics for Electronics 2
EET 116 Web Page Design 3
EET 148 Electronic Drafting 3
EET 150 Transformers 2
EET 151 Transformers Lab 1
EET 198 Practicum 2
EET 199 Cooperative Education Program 2
EET 214 Television and Radio Systems 6
EET 215 Television and Radio Systems Lab 2
EET 216 Computer Electronics Fundamentals 3
EET 217 Computer Electronics Fundamentals Lab 2
EET 218 Computer Applications I 3
EET 219 Computer Applications I Lab 2
EET 242 Robotics 2
EET 243 Robotics Lab 2
EET 244 Advanced Electronic Application 6
EET 250 National Electric Code 4
EET 252 Electrical Construction II 2
EET 254 Electrical Construction 3
EET 255 Electrical Construction Lab 4
EET 260 Home Automated Technology 2
EET 264 Rotating Machinery 2
EET 265 Rotating Machinery Lab 2
EET 266 Rotating Machinery and Transformers 3
EET 267 Rotating Machinery and Transformers Lab 3
EET 268 Rotating Machinery Electrical Motor Controls I 3
EET 269 Rotating Machinery and Motor Controls I Lab 4
EET 270 Electrical Motor Controls I 2
EET 271 Electrical Motor Controls I Lab 2
EET 272 Electrical Motor Controls II 2
EET 273 Electrical Motor Controls II Lab 2
EET 274 Electrical Motor Controls 3
EET 275 Electrical Motor Controls Lab 4
EET 276 Programmable Logic Controllers 2
EET 277 Programmable Logic Controllers Lab 2
EET 278 Electrical Motor Controls II and PLCs 3
EET 279 Electrical Motor Controls II and PLCs Lab 4
EET 281 Special Problems I 1
EET 283 Special Problems II 2
EET 285 Special Problems III 3
EET 286 Programmable Logic Controllers II 2
EET 287 Programmable Logic Controllers II Lab 2
EET 298 Practicum 1-8
EET 299 Cooperative Education Program 1-8
ELT 114 Computer-Aided Manufacturing 5
BRX 110 Basic Blueprint Reading for Machinist 2
BRX 112 Blueprint Reading for Machinist 4

** Appalachian Studies

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

Certificate
Appalachian Studies - 0501223069
(Offered at ASC, SEC)

Core:
HUM 202 Survey of Appalachian Studies I 3
HUM 203 Survey of Appalachian Studies II 3
HUM 204 Appalachian Seminar 3
Subtotal 9
**Communication Track - 050122301**
(Offered at ASC, SEC)

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

**Creative Writing Track - 050122302**
(Offered at ASC, SEC)

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

**Music Track - 050122303**

MUS  101  Folk and Traditional Music of the Western Continents ……….. 3  
Total  12

**Science Track - 050122304**
(Offered at ASC, SEC)

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

**Social Science Track - 050122305**
(Offered at ASC, SEC)

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

**Applied Engineering Technology**

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

**Certificate**

**Alternative Energy – 1504993099**
(Offered at BLC, BSC)

AET  102  Introduction to Energy ………………………………………….. 4  
AET  110  Introduction to Circuit Analysis OR…………………………… 4  
Electrical course approved by Program Coordinator…………………………(4)  
AET  114  Solar and Wind Energy Generation…………………………….. 4  
MAT  126  Technical Algebra and Trigonometry OR……………………. 3  
MAT  150  College Algebra OR………………………………………………... 3  
Higher Level Mathematics Course…………………………(3)  
Approved Technical Elective…………………………………………………... 3-5  
Total  18-20

**Applied Process Technologies**

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

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

**Associate in Applied Science**

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

**General Education Courses**

MAT  126  Technical Algebra & Trigonometry (Recommended) OR……… 3  
MAT  116  Technical Mathematics…………………………………….(3)  
CHE  130  Introductory General & Biological Chemistry OR…………. 4  
ENG  101  Writing I…………………………………………………………..…….. 3  
ECO  101  Contemporary Economic Issues (Recommended)……………(3)  
COM  252  Introduction to Interpersonal Communication……………….. 3  
Total  19

**Technical Core Courses**

Digital Literacy Course…………………………………………………... 3  
PHS  175  Applied Physics (Recommended) OR……………………… 6  
PHY  171  Applied Physics ………………………………………………………………(4)  
SFA  101  OSHA, Health, and Environmental Safety………………...…….. 3  
APT  102  Process Fundamentals,………………………………………………. 4  
APT  104  Rotating & Reciprocating Equipment…………………………… 3  
APT  106  Process Chemistry………………………………………………… 2  
APT  108  Stationary Equipment………………………………………………… 2  
APT  202  Federally Mandated Training……………………………………. 3  
APT  204  Safety Skills Training………………………………………………… 1  
APT  251  Application of Process Operations OR……………………….. 2  
APT  291  Special Problems in APT…………………………………………….. (2-3)  
EES  101  Basic Electronics……………………………………………………… 2  
Total  29-32

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

APT  142  Instrumentation…………………………………………………………… 4  
APT  144  Process Operations…………………………………………………………… 4  
APT  146  Process Applications…………………………………………………………… 2  
APT  148  Process Operations Safety…………………………………………………………… 2  
Total  12

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

APT  158  Lineman Technology I………………………………………………… 3  
APT  159  Lineman Technology I Lab………………………………………………… 4  
EET  150  Transformers…………………………………………………………… 2  
EET  151  Transformer Lab…………………………………………………………… 1  
APT  258  Lineman Technology II………………………………………………… 3  
APT  259  Lineman Technology II Lab………………………………………………… 4  
Total  17

**Total  65-68**
Electives
APT 299 Cooperative Education Program .................................. (1-6)
COE 199 Co-op ..................................................................... (1-8)
QMS 101 Introduction to Quality Systems ................................. (3)
EX 196 Experiential Education ................................................ (1-6)

Industrial Worker - 1507013019
(Offered at ASC, JFC)
SFA 101 OSHA, Health, and Environmental Safety .................. 3
Total ................................................................................. 3

Lineman – 4103013049
(Offered at ASC, JFC)
APT 158 Lineman Technology I ............................................. 3
APT 159 Lineman Technology I Lab ...................................... 4
EET 150 Transformers ......................................................... 2
EET 151 Transformers Lab .................................................... 1
APT 258 Lineman Technology II .......................................... 3
APT 259 Lineman Technology II Lab .................................... 4
EES 101 Basic Electronics .................................................... 2
TRU 100 Truck Driving ....................................................... 6
Total ................................................................................. 25

Power Plant Operator – 4103013029
(Offered at ASC, JFC)
SFA 101 OSHA, Health and Environmental Safety .................. 3
COM 252 Introduction to Interpersonal Communication .......... 3
CHE 130 Introductory General & Biological Chemistry OR .... 4
CHE 140/145 Introduction to General Chemistry with Lab ......... (4)
APT 102 Process Fundamentals ............................................ 4
APT 104 Rotating & Reciprocating Equipment ......................... 3
APT 108 Stationary Equipment ............................................. 2
APT 142 Instrumentation ..................................................... 4
APT 154 Power Plant Practice ............................................. 6
APT 156 Power Plant Protection ........................................... 2
EES 101 Basic Electronics .................................................... 2
Total ................................................................................. 33

Apprenticeship Studies

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

Associate in Applied Science

Apprenticeship Studies - 3000007019
(Offered at BLC, ELC, GTW, JFC, WKC)

Required:
Quantitative Reasoning .................................................................. 3
Heritage/Humanities ...................................................................... 3
Social/Behavioral Sciences ............................................................. 3
ENG 101 Writing I ...................................................................... 3
Oral Communications ................................................................... 3
PHY 171 Applied Physics OR .................................................... 4
Other Natural Sciences course with consent of program coordinator ........................................... (3)
Subtotal .................................................................................. 18-19

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

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

Architectural Technology

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

Architectural Technology - 1513037019
(Offered at BLC)

<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 110</td>
<td>Survey of the Architectural Profession</td>
<td>1</td>
</tr>
<tr>
<td>ACH 120</td>
<td>Theory and History of Architecture I</td>
<td>3</td>
</tr>
<tr>
<td>ACH 150</td>
<td>Construction Documents II</td>
<td>3</td>
</tr>
<tr>
<td>ACH 160</td>
<td>Building Materials and Construction I</td>
<td>3</td>
</tr>
<tr>
<td>ACH 161</td>
<td>Building Materials and Construction II</td>
<td>3</td>
</tr>
<tr>
<td>ACH 170</td>
<td>Theory and History of Architecture II</td>
<td>3</td>
</tr>
<tr>
<td>ACH 175</td>
<td>Introduction to Systems</td>
<td>3</td>
</tr>
<tr>
<td>ACH 195</td>
<td>Computer Aided Drafting</td>
<td>3</td>
</tr>
<tr>
<td>ACH 200</td>
<td>Construction Documents III</td>
<td>3</td>
</tr>
<tr>
<td>ACH 225</td>
<td>Structures</td>
<td>3</td>
</tr>
<tr>
<td>ACH 250</td>
<td>Construction Documents IV</td>
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<tr>
<td>ACH 260</td>
<td>Office Practice</td>
<td>3</td>
</tr>
<tr>
<td>ACH 275</td>
<td>Mechanical and Electrical Systems</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>MAT 116</td>
<td>Technical Mathematics OR</td>
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</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra OR</td>
<td>3</td>
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<td>----------</td>
<td>-------------------------------------------------</td>
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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>
<td>3</td>
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<tr>
<td>ACH 198</td>
<td>Practicum in Architectural Technology</td>
<td>1-3</td>
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<tr>
<td>ACH 280</td>
<td>Revit/Building Information Modeling</td>
<td>2</td>
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<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>
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<tr>
<td>ACH 292</td>
<td>Building Codes II</td>
<td>3</td>
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<tr>
<td>ACH 293</td>
<td>Presentation Techniques</td>
<td>3</td>
</tr>
<tr>
<td>ACH 294</td>
<td>Specification Writing</td>
<td>3</td>
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<tr>
<td>ACH 295</td>
<td>Computer Aided Drafting II</td>
<td>3</td>
</tr>
<tr>
<td>ACH 297</td>
<td>Estimating Techniques</td>
<td>3</td>
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<tr>
<td>ACH 298</td>
<td>Computer 3D Modeling</td>
<td>3</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education: Arch.Tech</td>
<td>1-3</td>
</tr>
</tbody>
</table>

Total 65-68

**Technical Courses**

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

Total 51-54

Additional Suggested General Education Courses (Not Required)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 102</td>
<td>Writing II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Oral Communication Course</td>
<td>3</td>
</tr>
</tbody>
</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.

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

General Education Courses:

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

Technical Courses:

CRT 100  Introduction to Collision Repair ...................... 2
CRT 130  Non-Structural Analysis and Damage Repair ........... 6
CRT 131  Non-Structural Analysis and Damage Repair Lab ....... 6
CRT 150  Painting and Refinishing .................................. 6
CRT 151  Painting and Refinishing Lab ............................. 6
CRT 230  Structural Analysis and Damage Repair ............... 6
CRT 231  Structural Analysis and Damage Repair Lab .......... 6
CRT 250  Structural Analysis and Damage Repair ............... 6
CRT 251  Structural Analysis and Damage Repair Lab .......... 6
Total Credits .................................................. 51-54

Recommended Program Electives

CRT 298  Advanced Practicum OR .................................. (2)
CRT 299  Advanced Cooperative Education ....................... (2)

Certificates

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

Technical Courses:

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

Automotive 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 Repairer – 4706033109
(Offered at BSC, GTW, HZC, SEC, SKY)

Technical Courses:

CRT 100  Introduction to Collision Repair ...................... 2
CRT 130  Non-Structural Analysis and Damage Repair ........... 6
CRT 131  Non-Structural Analysis and Damage Repair Lab ....... 6
CRT 150  Painting and Refinishing .................................. 6
CRT 151  Painting and Refinishing Lab ............................. 6
CRT 230  Structural Analysis and Damage Repair ............... 6
CRT 231  Structural Analysis and Damage Repair Lab .......... 6
CRT 250  Structural Analysis and Damage Repair Lab .......... 6
CRT 251  Structural Analysis and Damage Repair Lab .......... 6
Total Credits .................................................. 50
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

Automotive Technology

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

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

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

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

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

Associate in Applied Science

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

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

Technical Core:
Digital Literacy course OR
demonstrated competency .................................. 0-3
ADX 120 Basic Automotive Electricity ....................... 3
ADX 150 Engine Repair ......................................... 3
ADX 170 Climate Control ...................................... 3
ADX 260 Electrical Systems ................................ 3
AUT 110 Brake Systems ...................................... 3
AUT 130 Manual Transmissions ............................ 3
AUT 140 Basic Fuel and Ignition Systems ............... 3
AUT 142 Emission Systems ................................ 3

Total Technical core credits: 33-36

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

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

Total Credits: 13

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

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

Subtotal Credits: 21

Total Credits: 61-64

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

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

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

General Education Total Credit Hours 6

Technical or Support Courses:
Digital Literacy course OR
 demonstrated competency .................................. 0-3
ADX 120 Basic Automotive Electricity ....................... 3
ADX 150 Engine Repair ......................................... 3
ADX 170 Climate Control ...................................... 3
ADX 260 Electrical Systems ................................ 3
AUT 110 Brake Systems ...................................... 3
AUT 130 Manual Transmissions ............................ 3
AUT 140 Basic Fuel and Ignition Systems ............... 3
AUT 142 Emission Systems ................................ 3
AUT 160 Suspension and Steering .......................... 3
AUT 180 Automatic Transmission/Transaxle .......... 3
AUT 240 Computer Control Systems and Diagnosis .... 3
ISX 100 Industrial Safety .................................... 3
TQX 110 Total Quality Management ...................... 3
B&E 100 Introduction to Business and Economics .... 1
TEC 100 Communication for Business and Industry OR 3
CMS 152 Writing for Business and Industry ............ 3

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

Technical or Support Courses
Total Credit Hours: 47-50 credits
Total Credits: 53-56 credits
Automotive Technician - 4706044019
(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

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

Technical Core:
Digital Literacy course OR demonstrated competency 0–3
ADX 120 Basic Automotive Electricity .................................. 3
ADX 121 Basic Automotive Electricity Lab ........................... 2
ADX 150 Engine Repair ...................................................... 3
ADX 151 Engine Repair Lab ................................................. 2
ADX 170 Climate Control ................................................... 3
ADX 171 Climate Control Lab ............................................. 1
ADX 260 Electrical Systems ............................................... 3
ADX 261 Electrical Systems Lab ......................................... 2
AUT 110 Brake Systems .................................................... 3
AUT 111 Brake Systems Lab ............................................... 2
AUT 130 Manual Transmissions ......................................... 3
AUT 131 Manual Transmissions Lab ................................... 2
AUT 140 Basic Fuel and Ignition Systems ......................... 3
AUT 141 Basic Fuel and Ignition Systems Lab .................... 2
AUT 142 Emission Systems ............................................... 3
AUT 143 Emission Systems Lab ....................................... 2
AUT 160 Suspension and Steering .................................... 2
AUT 161 Suspension and Steering Lab .............................. 2
AUT 180 Automatic Transmission/Transaxle ..................... 3
AUT 181 Automatic Transmission/Transaxle Lab ................. 2
AUT 240 Computer Control Systems and Diagnosis .......... 3
AUT 241 Computer Control Systems and Diagnosis ........... 2
Any approved work experience component 1
Subtotal Credits: 55–58
Total Credits: 61–64

Certificates

Automatic Transmission/Transaxle Technician - 4706043079
(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
AUT 180 Automatic Transmission/Transaxle ..................... 3
AUT 181 Automatic Transmission/Transaxle Lab ................. 2
Total Credits 5

Automotive Air Conditioning Mechanic - 4706043019
(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
ADX 170 Climate Control ................................................... 3
ADX 171 Climate Control Lab ............................................. 1
Total Credits 4

Automotive Electrician - 4706043039
(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)
ADX 120 Basic Automotive Electricity AND ....................... 3
ADX 121 Basic Automotive Electricity Lab .......................... 2
ADX 260 Electrical Systems .............................................. 3
ADX 261 Electrical Systems Lab ....................................... 2
Total Credits 10

Brake Repairer- 4706043069
(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
AUT 110 Brake Systems .................................................... 3
AUT 111 Brake Systems Lab ............................................... 2
Total Credits 5

Engine Repairer - 4706043069
(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
ADX 150 Engine Repair ................................................... 3
ADX 151 Engine Repair Lab ............................................... 2
Total Credits 5

Front End Mechanic - 4706043099
(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
AUT 160 Suspension and Steering .................................... 3
AUT 161 Suspension and Steering Lab ................................ 2
Total Credits 5

Hybrid and Electric Vehicle Technician – 4706043139
(Offered at JFC, MDC, WKC)
AUT 140 Basic Fuel and Ignition Systems ......................... 3
AUT 141 Basic Fuel and Ignition Systems Lab .................... 2
AUT 142 Emissions Systems ............................................. 3
AUT 143 Emissions Systems Lab ....................................... 2
ADX 150 Engine Repair ................................................... 3
ADX 151 Engine Repairer ................................................ 2
ADX 120 Basic Automotive Electricity .............................. 3
ADX 121 Basic Automotive Electricity Lab .......................... 2
ADX 260 Electrical Systems .............................................. 3
ADX 261 Electrical Systems Lab ....................................... 2
ADX 275 Hybrid and Electric Vehicle Technology ............. 3
ADX 276 Hybrid and Electric Vehicle Technology Lab ...... 2
Total Credits 25

Manual Transmission/Drive Train Technician - 4706043059
(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
AUT 130 Manual Transmissions ........................................ 3
AUT 131 Manual Transmissions Lab ................................... 2
Total Credits 5

Tune-up Mechanic - 470604319
(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
ADX 120 Basic Automotive Electricity .............................. 3
ADX 121 Basic Automotive Electricity Lab .......................... 2
ADX 260 Electrical Systems .............................................. 3
ADX 261 Electrical Systems Lab ....................................... 2
AUT 140 Basic Fuel and Ignition Systems ......................... 3
AUT 141 Basic Fuel and Ignition Systems Lab .................... 2
AUT 142 Emissions Systems ............................................. 3
AUT 143 Emissions Systems Lab ....................................... 2
AUT 240 Computer Control Systems and Diagnosis .......... 3
AUT 241 Computer Control Systems and Diagnosis Lab ...... 2
Total Credits 25
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
Quantitative Reasoning.................................................. 3
Social/Behavioral Sciences............................................. 3
Heritage/Humanities .................................................... 3
Subtotal ................................................................. 15

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

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

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

Total Credits .......................................................... 6

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

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

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/Humanities ................................................... 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 242 Aircraft Powerplants I ........................................... 3
ATE 244 Aircraft Powerplants II ....................................... 3
ATE 246 Aircraft Powerplants III ...................................... 3
ATE 248 Aircraft Powerplants IV ....................................... 3
ATE 252 Aircraft Powerplant Systems I ................................ 3
ATE 254 Aircraft Powerplant Systems II ................................ 3
ATE 256 Aircraft Powerplant Systems III ................................ 3
ATE 258 Aircraft Powerplant Systems IV ................................ 3

Total Credits .......................................................... 37
Biomedical Technology Systems

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

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

Associate in Applied Science

Biomedical Technology Systems – 1504017029

(Offered at MDC)

General Education Courses

ENG 101 Writing I ......................................................... 3
MAT 126 Technical Algebra and Trigonometry OR ........................ 3
MAT 150 College Algebra .............................................. (3)
PHY 171 Applied Physics ............................................. 4
Social/Behavioral Sciences ......................................... 3
Heritage/Humanities ................................................... 3
Subtotal 16

Technical Support Courses

AIT 1001 Basic Electrical Knowledge .................................. 2
AIT 1101 Electrical Power Distribution ............................... 1
BIO 135 Basic Anatomy and Physiology with Laboratory ... 4
CTT 105 Introduction to Computing .................................. 3
(fulfills digital literacy requirement)
CTT 111 Computer Hardware and Software ....................... 4
CTT 160 Introduction to Networking Concepts .................. 4
CTT 180 Security Fundamentals ....................................... 3
Subtotal 21

Technical Courses

BTS 100 Biomedical Technology Systems: A Career Perspective 1
BTS 110 Environmental Risks and Precautionary Measures for the 1
BTS Professional
BTS 120 Essentials of Biomedical Electronics I .......................... 2
BTS 125 Essentials of Biomedical Electronics II .................. 2
BTS 130 Medical Equipment Management I .......................... 2
BTS 140 Science Principles Employed in Medical Technologies 1
BTS 200 Patient Care Support and Management Systems 2
BTS 210 Diagnostic Medical Equipment and Non-Radiographic 2
Imaging Modalities
BTS 220 Laboratory Devices, Instruments, and Analyzers 2
BTS 230 Medical Equipment Management II .......................... 2

BTS 250 Introduction to Medical-Based IT Networks and Standards ... 2
BTS 260 Radiographic Imaging Modalities ............................ 2
BTS 270 Therapeutic Equipment Modalities I .......................... 2
BTS 275 Therapeutic Equipment Modalities II ...................... 2
BTS 280 General Care Monitoring and Instrumentation ........... 2
BTS 285 Critical Care Monitoring and Instrumentation ............ 2
BTS 290 Clinical Experience in Biomedical Technology Systems 2
Professional ......................................................... 2
Subtotal 31

Total 68

Elective

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

Certificate

Foundations in Biomedical Technology Networking Systems - 1504013029

(Offered at MDC)

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

Biotechnology Laboratory Technician

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

The Biotechnology Laboratory Assistant certificate provides basic training and personal support to prepare students for certificates and degrees in Biotechnology or entry level employment in bioscience laboratories. The program is intended for students with little or no background in science, although the program is open to all students. Students enroll in three integrated courses as a cohort, BTN 100, BTN 103, and BTN 104.

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

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

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

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

**Associate in Applied Science**

**Biotechnology Laboratory Technician – 4101017029**

*(Offered at BLC)*

**Required General Education Courses**

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

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

- 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.

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

**Required Technical Core Courses**

- BTN 101 Introduction to Biotechnology .......................... 1
- BTN 105 Applied Biotechnology Laboratory Calculations .... 3
- BTN 201 Biotechnology Techniques I .............................. 2
- BTN 202 Biotechnology Techniques II .............................. 4
- Digital Literacy\(^a\) .................................................. 0-3

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

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

**Required Technical Elective Courses**

Choose at least 28 credit hours:

- BTN 106 Fundamentals of Scientific Communication ......... 3
- BTN 110 Nucleic Acids ................................................. 4
- BTN 115 Biomanufacturing ........................................... 4
- BTN 120 Biofuels ................................................... 4
- BTN 125 Bioinformatics I ............................................ 2
- BTN 126 Bioinformatics II ........................................... 2
- BTN 160 Introduction to Agricultural Biotechnology ....... 4
- BTN 210 Cell Culture and Function .................................. 4
- BTN 220 Immunological Methods .................................. 4
- BTN 225 Protein Bioseparation Methods ......................... 4
- BTN 295 Independent Investigation in Biotechnology\(^a\) OR ... 1-3
- BTN 298 Biotechnology Learning Laboratory\(^a\) OR ............ 1-8
- COE 199 Cooperative Education\(^a\) ..................................... 1-3

**Subtotal: Technical Elective Courses** 28

\(^a\) 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**

**Advanced Biotechnician - 4101013050**

*(Offered at BLC)*

- BTN 101 Introduction to Biotechnology ......................... 1
- BTN 105 Applied Biotechnology Laboratory Calculations .... 3
- BTN 201 Biotechnology Techniques I .............................. 4
- BTN 202 Biotechnology Techniques II .............................. 4

**Choose 15 credits from the following:**

- BTN 106 Fundamentals of Scientific Communication ......... 3
- BTN 110 Nucleic Acids ................................................. 4
- BTN 115 Biomanufacturing ........................................... 4
- BTN 120 Biofuels ................................................... 4
- BTN 125 Bioinformatics I ............................................ 2
- BTN 126 Bioinformatics II ........................................... 2
- BTN 160 Introduction to Agricultural Biotechnology ....... 4
- BTN 210 Cell Culture and Function .................................. 4
- BTN 220 Immunological Methods .................................. 4
- BTN 225 Protein Bioseparation Methods ......................... 4
- BTN 295 Independent Investigation in Biotechnology\(^a\) OR ... 1-3
- BTN 298 Biotechnology Learning Laboratory\(^a\) OR ............ 1-8
- COE 199 Cooperative Education\(^a\) ..................................... 1-3

**Subtotal: Technical Elective Courses** 28

- Or course approved by the program coordinator ............... 4-5

**Total** 27

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

**Prerequisites:**

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

**Basic Biotechnician- 4101013020**

*(Offered at BLC)*

- BTN 101 Introduction to Biotechnology ......................... 1
- BTN 105 Applied Biotechnology Laboratory Calculations .... 3
- BTN 201 Biotechnology Techniques I .............................. 4
- BTN 202 Biotechnology Techniques II .............................. 4

**Science\(^b\)** .................................................. 4-5

**Total** 16-17

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

**Prerequisites:**

- Completion of the Biotechnology Laboratory Assistant Certificate, or
- Completion of BTN 100, BTN 103, and BTN 104 or cohort with a "C" or better, or
- One semester of college biology with lab, or
- One semester of college chemistry with lab, or
- Course approved by the program coordinator.
Bioinformatics – 4101013060
(Offered at BLC)

<table>
<thead>
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<th>Credits</th>
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</thead>
<tbody>
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<td>BTN 105</td>
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<td>BTN 201</td>
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<td>BTN 202</td>
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<td>CSE 149</td>
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<tr>
<td>CS 115</td>
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<tr>
<td>INF 120</td>
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<tr>
<td>CIT 170</td>
<td>3</td>
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<td>INF 282</td>
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<td>CIT 249</td>
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<td>INF 286</td>
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Biotechnology Laboratory Assistant - 4101013040
(Offered at BLC)

<table>
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<th>Credits</th>
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<tbody>
<tr>
<td>BTN 100</td>
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<tr>
<td>BTN 103</td>
<td>3</td>
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<td>BTN 104</td>
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<td>BTN 101</td>
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<tr>
<td>BTN 106</td>
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<td><strong>Total</strong></td>
<td>17</td>
</tr>
</tbody>
</table>

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

Environmental Biotechnology – 4101013070
(Offered at BLC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTN 101</td>
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<tr>
<td>BTN 201</td>
<td>4</td>
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<tr>
<td>BTN 202</td>
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<tr>
<td>CHE 170</td>
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<td>EST 150</td>
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<td>EST 170</td>
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<td>EST 260</td>
<td>2</td>
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<td><strong>Total</strong></td>
<td>21</td>
</tr>
</tbody>
</table>

Broadband Technology

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

Broadband Technician Track

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

Broadband Telecommunications Equipment Installer Track

This track provides course work, competencies and experiences to prepare the students for success as Broadband Telecommunications Equipment Installers. Areas of study as related to this track include Computer Hardware and Software, Introduction to GIS (Graphical Information Systems), Functions and Operation of PBX Systems, Fiber Optics Systems Splicing and Maintenance, Basic Telephony Installations 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 NFPA 70 (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>
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<th>General Education:</th>
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<tbody>
<tr>
<td>MAT 150 College Algebra OR .................................................</td>
<td>3</td>
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<tr>
<td>MAT 126 Technical Algebra and Trigonometry ................................</td>
<td>(3)</td>
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<tr>
<td>PHY 171 Applied Physics OR ....................................................</td>
<td>4</td>
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<tr>
<td>Other Natural Science with Consent of Program Coordinator ..................</td>
<td>(3)</td>
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<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>
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<tr>
<td>Heritage/Humanities .......................................................................</td>
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<td>General Education Credit Hours Subtotal ........................................</td>
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</table>

**Technical Core**

| ELT 110 Circuits I ................................................................. | 5 |
| ELT 120 Digital I ......................................................................... | 3 |
| BBT 289 Broadband Technology Capstone ......................................... | 1 |
| CTT 105 Introduction to Computers OR ........................................... | 3 |
| Digital Literacy course .................................................................... | (3) |
| CTT 111 Computer Hardware and Software .......................................... | 4 |
| CTT 161 Introduction to Networks .................................................. | 4 |
| ISX 100 Industrial Safety .................................................................. | 3 |
| BBT 100 Introduction to HFC Cable-TV ........................................... | 3 |
| BBT 200 Introduction to Cellular Technology ...................................... | 2 |

**Subtotal**

| 28 |

**Broadband Design and Applications Track - 470103703**

*(Offered at BSC)*

| CTT 125 Introduction to GIS ...................................................... | 3 |
| BBT 210 Security Systems Applications ............................................ | 3 |
| BBT 101 HFC Cable-TV Operations .................................................. | 3 |
| EET 154 Electrical Construction I ................................................... | 2 |
| EET 155 Electrical Construction I Lab ................................................ | 2 |
| EET 252 Electrical Construction II .................................................. | 2 |
| EET 253 Electrical Construction II Lab ................................................ | 2 |
| National Electrical Code ..................................................................... | 4 |

**Track Subtotal**

| 21 |

**Total Credit Hours**

| 67-68 |

**Broadband Telecommunications Equipment Installer Track - 470103702**

*(Offered at BSC)*

| CTT 125 Introduction to GIS ...................................................... | 3 |
| BBT 220 PBX installations ............................................................ | 2 |
| BBT 201 Advanced Cellular Technology ............................................ | 2 |
| ETT 224 Basic Telecommunications Installation and Maintenance ................ | 3 |
| ETT 110 Voice & Data Installer Level I ............................................. | 4 |
| ETT 116 Fiber Optics Systems .......................................................... | 3 |

**Track Subtotal**

| 17 |

**Total Credit Hours**

| 63-64 |

**Certificates**

**Broadband Basic Installer – 4701033050**

*(Offered at BSC, SEC)*

| ELT 110 Circuits I ................................................................. | 5 |
| BBT 100 Introduction to HFC Cable-TV ........................................... | 3 |
| BBT 200 Introduction to Cellular Technology ...................................... | 2 |
| ETT 224 Basic Telecommunications Installation and Maintenance ................ | 3 |
| **Total** .................................................................................... | 13 |

**Broadband Cyber Security Technician – 4701033090**

*(Offered at BSC, SEC)*

| BBT 210 Security Systems Applications ............................................ | 3 |
| EET 110 Voice & Data Installer Level I ............................................. | 4 |
| CTT 105 Introduction to Computers OR ........................................... | 3 |
| Digital Literacy Course ..................................................................... | (3) |
| CTT 111 Computer Hardware and Software .......................................... | 4 |
| CTT 161 Introduction to Networks .................................................. | 4 |
| ISX 100 Industrial Safety .................................................................. | 3 |
| BBT 100 Introduction to HFC Cable-TV ........................................... | 3 |
| CRJ 220 Introduction to Computer Forensics for Criminal Justice .......... | 3 |
| **Total** .................................................................................... | 27 |

**Broadband Support Technician – 4701033060**

*(Offered at BSC, SEC)*

| ELT 110 Circuits I ................................................................. | 5 |
| ELT 120 Digital I ......................................................................... | 3 |
| CTT 105 Introduction to Computers OR ........................................... | 3 |
| Digital Literacy Course ..................................................................... | (3) |
| CTT 111 Computer Hardware and Software .......................................... | 4 |
| CTT 161 Introduction to Networks .................................................. | 4 |
| ISX 100 Industrial Safety .................................................................. | 3 |
| BBT 200 Introduction to Cellular Technology ...................................... | 2 |
| **Total** .................................................................................... | 27 |

**Broadband Technician Specialist – 4701033070**

*(Offered at BSC, SEC)*

| BBT 100 Introduction to HFC Cable-TV ........................................... | 3 |
| BBT 200 Introduction to Cellular Technology ...................................... | 2 |
| ETT 110 Voice & Data Installer Level I ............................................. | 4 |
| ETT 116 Fiber Optics Systems .......................................................... | 3 |
| ETT 224 Basic Telecommunications Installation and Maintenance ................ | 3 |
| ETT 222 Mechanics of Telephony .................................................... | 3 |
| ETT 154 Electrical Construction I ................................................... | 2 |
| ETT 155 Electrical Construction I Laboratory .................................... | 2 |
| ETT 252 Electrical Construction II .................................................. | 2 |
| ETT 253 Electrical Construction II Laboratory .................................... | 2 |
| **Total** .................................................................................... | 26 |
Building Controls Technician

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

Certificates

Building Controls Technician – 4604013099

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<td>ACR 100</td>
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<td>ACR 102</td>
<td>HVAC Electricity</td>
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<td>ACR 103</td>
<td>HVAC Electricity Lab</td>
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<tr>
<td>CRA 230</td>
<td>Building Controls I</td>
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<td>CRA 232</td>
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Technical Electives (Must complete 10 credit hours from the list below.)

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<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>ACR 206</td>
<td>Boilers</td>
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<tr>
<td>ACR 207</td>
<td>Commercial HVAC Systems</td>
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<td>ACR 208</td>
<td>Chillers</td>
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<td>Other Technical Electives approved by Program Coordinator</td>
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</tr>
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</table>

Business Studies

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

Administrative Office Technology

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

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

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

Associate in Applied Science

Administrative Office Technology – 5204027039

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

General Education:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>MAT 105</td>
<td>Business Mathematics OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics OR</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Higher Level Quantitative Reasoning Course</td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td>Heritage/Humanities</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Oral Communications Course</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Natural Sciences Course</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Social/Behavioral Sciences Course***</td>
<td>3</td>
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<tr>
<td></td>
<td><strong>Total Education Credit Hours</strong></td>
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Technical Core

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

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

Administrative Management Track - 520402701

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</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></td>
<td>Higher Level Accounting Course</td>
<td>(3)</td>
</tr>
<tr>
<td>OST 220</td>
<td>Administrative Office Simulation</td>
<td>3</td>
</tr>
<tr>
<td>OST 225</td>
<td>Introduction to Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>OST 295</td>
<td>Administrative Office Technology Internship OR</td>
<td>3</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td><strong>Choose two courses (6 credit hours) from the following list:</strong></td>
<td></td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BAS 120</td>
<td>Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II</td>
<td>3</td>
</tr>
<tr>
<td>OST 108</td>
<td>Editing Skills for the Office Professional</td>
<td>3</td>
</tr>
<tr>
<td>OST 150</td>
<td>Transcription and Office Technology</td>
<td>3</td>
</tr>
<tr>
<td>OST 250</td>
<td>Advanced Desktop Publishing</td>
<td>3</td>
</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></td>
<td>Elective course approved by Program Coordinator</td>
<td>3</td>
</tr>
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<td><strong>Total Administrative Management Track</strong></td>
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<td></td>
<td><strong>Total Credit Hours OST AAS</strong></td>
<td><strong>60-61</strong></td>
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</table>
### Desktop Publishing Track - 520402704
*(Offered at BLC)*

**Available Completely Online**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>OST 130</td>
<td>Typography</td>
<td>3</td>
</tr>
<tr>
<td>OST 225</td>
<td>Introduction to Desktop Publishing</td>
<td>3</td>
</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 220</td>
<td>Administrative Office Simulation</td>
<td>3</td>
</tr>
<tr>
<td>OST 295</td>
<td>Administrative Office Technology Internship OR</td>
<td>3</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
<td>(2-3)</td>
</tr>
</tbody>
</table>

**Total Desktop Publishing Track Credit Hours** 20-21

### Financial Assistant Track - 520402703
*(Offered at BLC)*

**Available Completely Online**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I OR</td>
<td>3</td>
</tr>
<tr>
<td>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>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
<td>(3)</td>
</tr>
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</table>

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

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

**Total Financial Assistant Track Credit Hours** 18

### Legal Administrative Track - 520402705
*(Offered at BLC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I OR</td>
<td>3</td>
</tr>
<tr>
<td>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>
<td>3</td>
</tr>
<tr>
<td>MIT 103</td>
<td>Medical Office Terminology</td>
<td>3</td>
</tr>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek and Latin OR</td>
<td>3</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology</td>
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</table>

**Total Legal Administrative Assistant Track Credit Hours** 18

### Diplomas

**Administrative Assistant - 5204024019**
*(Offered at BLC, BSC, ELC, JFC, MYC)*

**Available Completely Online**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>OST 213</td>
<td>Business Calculations for the Office Professional</td>
<td>3</td>
</tr>
<tr>
<td>MAT 105</td>
<td>Business Mathematics OR</td>
<td>(3)</td>
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</table>

**Total General Education** 6

### Technical Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<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>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
<td>(2-3)</td>
</tr>
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</table>

### Available Completely Online

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 120</td>
<td>Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II</td>
<td>3</td>
</tr>
<tr>
<td>OST 108</td>
<td>Editing Skills for the Office Professional</td>
<td>3</td>
</tr>
<tr>
<td>OST 150</td>
<td>Transcription and Office Technology</td>
<td>3</td>
</tr>
<tr>
<td>OST 250</td>
<td>Advanced Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>OST 272</td>
<td>Presentation Graphics</td>
<td>3</td>
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</table>

**Total Technical Hours** 36

### Desktop Publishing Specialist - 5204024029
*(Offered at BLC)*

**Available Completely Online**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>OST 213</td>
<td>Business Calculations for the Office Professional</td>
<td>3</td>
</tr>
<tr>
<td>MAT 105</td>
<td>Business Mathematics OR</td>
<td>(3)</td>
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</table>

**Total General Education** 6

### Technical Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>OST 110</td>
<td>Document Formatting and Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>OST 130</td>
<td>Typography</td>
<td>3</td>
</tr>
<tr>
<td>OST 160</td>
<td>Records and Database Management</td>
<td>3</td>
</tr>
<tr>
<td>OST 210</td>
<td>Advanced Word Processing Applications</td>
<td>3</td>
</tr>
<tr>
<td>OST 215</td>
<td>Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>OST 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 240</td>
<td>Software Integration</td>
<td>3</td>
</tr>
<tr>
<td>OST 295</td>
<td>Administrative Office Technology Internship OR</td>
<td>3</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
<td>(2-3)</td>
</tr>
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</table>

**Total Technical Hours** 38-39

### Financial Assistant - 5204024049
*(Offered at BLC)*

**Available Completely Online**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>OST 213</td>
<td>Business Calculations for the Office Professional</td>
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</tr>
<tr>
<td>MAT 105</td>
<td>Business Mathematics OR</td>
<td>(3)</td>
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</table>

**Total General Education** 6
Technical Courses

ACT 101 Fundamentals of Accounting I OR .............................. 3
ACT 102 Fundamentals of Accounting II OR .............................. 3
ACT 279 Computerized Accounting Systems ................................... 3
OST 105 Introduction to Information Systems .............................. 3
OST 110 Document Formatting and Word Processing ....................... 3
OST 160 Records and Database Management .............................. 3
OST 215 Office Procedures ................................................... 3
OST 240 Software Integration .................................................. 3
OST 295 Administrative Office Technology Internship OR ................. 3
COE 199 Cooperative Education ................................................ 3

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

BAS 120 Personal Finance ...................................................... 3
BAS 160 Introduction to Business .............................................. 3
ENG 102 Writing II .............................................................. 3
OST 150 Transcription and Office Technology ............................. 3
OST 215 Office Procedures ..................................................... 3
OST 255 Introduction to Business Graphics ............................... 3
OST 250 Advanced Desktop Publishing ..................................... 3
OST 272 Presentation Graphics ................................................. 3

Total Technical Hours 32-33

Total Credit Hours 38-39

Legal Assistant - 5204024059

(Offered at BLC)

General Education

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

ACT 101 Fundamentals of Accounting I OR .............................. 3
ACT 102 Fundamentals of Accounting II OR .............................. 3
BAS 267 Introduction to Business Law ....................................... 3
OST 105 Introduction to Information Systems .............................. 3
OST 109 Legal Terminology .................................................... 3
OST 215 Office Procedures ..................................................... 3
OST 110 Document Formatting and Word Processing ....................... 3
OST 160 Records and Database Management .............................. 3
OST 221 Legal Office Simulations .............................................. 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 120 Personal Finance ...................................................... 3
BAS 160 Introduction to Business .............................................. 3
ENG 102 Writing II .............................................................. 3
OST 150 Transcription and Office Technology ............................. 3
OST 225 Introduction to Desktop Publishing ................................ 3
OST 250 Advanced Desktop Publishing ..................................... 3
OST 255 Introduction to Business Graphics ............................... 3
OST 272 Presentation Graphics ................................................. 3

Total Technical Hours 36

Total Credit Hours 42
Data Entry Operator - 5204023079
(Offered at BLC, BSC, ELC, HEC, HPC, JFC, MYC, OWC, WKC)
Available Completely Online
OST 105 Introduction to Information Systems .......................3
OST 110 Document Formatting and Word Processing .................3
Total Credit Hours 6

Desktop Publishing - 5204023099
(Offered at BLC, BSC)
Available Completely Online
ENG 101 Writing I ...................................................3
OST 108 Editing Skills for the Office Professional ...................3
OST 213 Business Calculations for the Office Professional .........3
MAT 105 Business Mathematics OR ................................(3)
OST 105 Introduction to Information Systems .......................3
OST 110 Document Formatting and Word Processing .................3
OST 130 Typography ..................................................3
OST 160 Records and Database Management .........................3
OST 225 Introduction to Desktop Publishing .........................3
OST 255 Introduction to Business Graphics ........................3
OST 272 Presentation Graphics .......................................3
Total Credit Hours 27

Financial Assistant Clerk - 5204023129
(Offered at BLC, BSC, HPC, JFC, MYC, OWC)
Available Completely Online
OST 105 Introduction to Information Systems .......................3
ACT 101 Fundamentals of Accounting I OR ........................3
OST 108 Editing Skills for the Office Professional ...................3
ENG 101 Writing I ...................................................3
OST 110 Document Formatting and Word Processing .................3
OST 160 Records and Database Management .........................3
OST 213 Business Calculations for the Office Professional .........3
MAT 105 Business Mathematics OR ................................(3)
OST 109 Legal Terminology .........................................3
OST 110 Document Formatting and Word Processing .................3
Total Credit Hours 18

Financial Assistant Trainee - 5204023139
(Offered at BLC, BSC, HPC, JFC, MYC, OWC)
Available Completely Online
OST 105 Introduction to Information Systems .......................3
ACT 101 Fundamentals of Accounting I OR ........................3
OST 110 Document Formatting and Word Processing .................3
OST 213 Business Calculations for the Office Professional .........3
MAT 105 Business Mathematics OR ................................(3)
OST 109 Legal Terminology .........................................3
OST 110 Document Formatting and Word Processing .................3
Total Credit Hours 12

Financial Record Keeper - 5204023069
(Offered at BLC, BSC, JFC, OWC)
Available Completely Online
OST 105 Introduction to Information Systems .......................3
ACT 101 Fundamentals of Accounting I OR ........................3
OST 108 Editing Skills for the Office Professional ...................3
ENG 101 Writing I ...................................................3
OST 110 Document Formatting and Word Processing .................3
OST 112 Financial Management OR ................................3
OST 160 Records and Database Management .........................3
OST 213 Business Calculations for the Office Professional .........3
MAT 105 Business Mathematics OR ................................(3)
OST 215 Office Procedures .........................................3
OST 240 Software Integration .......................................3
Total Credit Hours 30

Integrated Office Skills - 5204023059
(Offered at BLC, BSC, ELC, HPC, JFC, MYC, OWC, WKC)
OST 108 Editing Skills for the Office Professional OR ..........(3)
ENG 101 Writing I ...................................................3
OST 105 Introduction to Information Systems .......................3
OST 110 Document Formatting and Word Processing .................3
OST 160 Records and Database Management .........................3
OST 210 Advanced Word Processing Applications .................3
OST 215 Office Procedures .........................................3
OST 240 Software Integration .......................................3
Total Credit Hours 21

Legal Receptionist - 5204023149
(Offered at BLC, MYC)
Available Completely Online
OST 105 Introduction to Information Systems .......................3
OST 108 Editing Skills for the Office Professional ...................3
ENG 101 Writing I ...................................................3
OST 110 Document Formatting and Word Processing .................3
OST 160 Records and Database Management .........................3
OST 109 Legal Terminology .........................................3
Total Credit Hours 15

Receptionist - 5204023089
(Offered at BLC, BSC, ELC, HPC, JFC, MYC, OWC, WKC)
Available Completely Online
OST 105 Introduction to Information Systems .......................3
OST 108 Editing Skills for the Office Professional ...................3
ENG 101 Writing I ...................................................3
OST 160 Records and Database Management .........................3
OST 110 Document Formatting and Word Processing .................3
Total Credit Hours 12

Business Administration

The Business Administration Program prepares students for a variety of careers in business. A core curriculum provides students with a foundation of knowledge applicable to any business career. The Business Administration Program offers an Associate in Applied Science degree, diplomas and a variety of certificates in the areas of Accounting, Entrepreneurship, Financial Perspectives, Business, Hospitality Management, Human Resource Management, Industrial 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 / Certificate leads to careers in accounting including bookkeeper, accounting clerk, cost payroll clerk and positions using microcomputer-based systems.

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

The Equine Business Management Track / Certificate provides the knowledge and skills students need to take advantage of various employment opportunities within the horse industry.
The Hospitality Management Track / Certificate prepares students for careers directing specific aspects of hospitality operations and for overall hospitality management.

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

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

The Marketing and Retailing Track prepares for careers in sales, merchandise management, buying, department supervising, or retail management.

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

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

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

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

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

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

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

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

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

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

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

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

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

**Associate in Applied Science**

**Business Administration - 5202017129**

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

**General Education:**

<table>
<thead>
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<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
<td>(3)</td>
</tr>
<tr>
<td>ECO 102</td>
<td>Any Economics Course</td>
<td>3</td>
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<tr>
<td>MAT 105</td>
<td>Business Mathematics OR</td>
<td>3</td>
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<tr>
<td>MAT 110</td>
<td>Applied Mathematics OR</td>
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<tr>
<td>MAT 150</td>
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**Total Credits**: 27

**Core Subtotal**: 45

**Technical Courses:**

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<tbody>
<tr>
<td>CIT 105</td>
<td>Introduction to Computers OR</td>
<td>3</td>
</tr>
<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
<td>(3)</td>
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<td>ENG 102</td>
<td>Writing II</td>
<td>3</td>
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<td>Business Communications Technology</td>
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<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
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<tr>
<td>BAS 260</td>
<td>Professional Development and Protocol</td>
<td>2</td>
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<tr>
<td>BAS 270</td>
<td>Business Employability Seminar</td>
<td>1</td>
</tr>
<tr>
<td>BAS 267</td>
<td>Introduction to Business Law</td>
<td>3</td>
</tr>
<tr>
<td>BAS 282</td>
<td>Principles of Marketing OR</td>
<td>3</td>
</tr>
<tr>
<td>MKT 282</td>
<td>Principles of Marketing</td>
<td>(3)</td>
</tr>
<tr>
<td>BAS 283</td>
<td>Principles of Management OR</td>
<td>3</td>
</tr>
<tr>
<td>MGT 283</td>
<td>Principles of Management</td>
<td>(3)</td>
</tr>
<tr>
<td>ACC 201</td>
<td>Financial Accounting</td>
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</tr>
<tr>
<td>ACC 202</td>
<td>Managerial Accounting</td>
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</tbody>
</table>

**Total Credits**: 18

**Business Administration Tracks**

**Accounting Track - 520201701**

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

**Available Completely Online**

**Required:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT 279</td>
<td>Computerized Accounting Systems</td>
<td>3</td>
</tr>
<tr>
<td>ACT 281</td>
<td>Individual Taxation</td>
<td>3</td>
</tr>
<tr>
<td>ACT 286</td>
<td>Financial Accounting Topics</td>
<td>3</td>
</tr>
<tr>
<td>BAS 110</td>
<td>Worksheets in Business Applications OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 130</td>
<td>Productivity Software OR</td>
<td>(3)</td>
</tr>
<tr>
<td>OST 240</td>
<td>Software Integration</td>
<td>3</td>
</tr>
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</table>

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</tr>
</thead>
<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 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>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education: (Business Administration) OR</td>
<td>1-3</td>
</tr>
<tr>
<td>BAS 280</td>
<td>Business Internship</td>
<td>(1-4)</td>
</tr>
</tbody>
</table>

**Total Credits**: 63

---

103
Required:

EQS 110  Basic Equine Physiology ........................................ 3
EQS 103  Racehorse Care ................................................. 1
EQS 104  Racehorse Care Lab OR ........................................... 3
EQS 299  Equine Internship ................................................ 1-3
EQS 118  Equine Bloodstock ................................................ 3
EQM 120  Introduction to Commercial Breeding Practices ........... 3
EQS 130  Introduction to the Racing Industry .......................... 1-3
EQS 240  Equine Legal and Business Principles ........................ 3

Subtotal  19

Total Credits  63-68

Hospitality Management Track - 520201703
(Offered at BLC, BSC, ELC, WKC)

Required:

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

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

BAS 200  Small Business Management .................................. 3
BAS 274  Human Resource Management ................................ 3
BAS 290  Management, Ethics & Society ................................ 3
COE 199  Cooperative Education: Business Administration OR 1-3
BAS 280  Business Internship ............................................. (1-4)
CUL 105  Applied Introduction to Culinary Arts ........................ 3
CUL 125  Sanitation & Safety .............................................. 2
CUL 270  Human Relations Management ................................ 3
CUL 280  Cost & Control ................................................... 2
HOS 160  Security for the Hospitality Industry ......................... 3
HOS 200  Cultural Heritage Tourism .................................... 3
HOS 210  Front Office Management ...................................... 3

Subtotal Credits  17

Total  62

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

Available Completely Online

Required:

BAS 274  Human Resource Management ................................ 3
BAS 287  Supervisory Management ....................................... 3
ACT 196  Payroll Accounting .............................................. 3

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

BAS 280  Business Internship OR .......................................... 1-4
COE 199  Cooperative Education ........................................ 1-3
BAS 201  Customer Service Improvement Skills ........................ 3
BAS 212  Introduction to Financial Management OR .................. 3
BAS 284  Applied Management Skills .................................... 3
BAS 288  Person & Organizational Leadership ........................ 3
BAS 290  Management, Ethics & Society ................................ 3
BAS 299  Selected Topics in Management: (Track Topic) ............ 1-3
BAS 110  Worksheets in Business Applications OR .................... 3
CIT 130  Productivity Software OR ...................................... (3)
OST 240  Software Integration ............................................ (3)
PSY 180  Human Relations ............................................... 2

Subtotal  18

Total  63

Management Track - 520201708
(Offered at ASC, BSC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

Available Completely Online

Required:

BAS 110  Worksheets in Business Applications OR .................... 3
CIT 130  Productivity Software OR ...................................... (3)
OST 240  Software Integration ............................................ (3)
BAS 212  Introduction to Financial Management OR .................. 3
BAS 284  Applied Management Skills .................................... 3

*Must be a General Education Quantitative Reasoning that is different from core Quantitative Reasoning selection.

Business Management Track – 520201717
(Offered at BLC, HZC, 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.

Choose a total of 3 hours from the following:

BAS 120  Personal Finance ............................................. 3
COE 199  Cooperative Education ........................................ 1-3
ECO 202  Principles of Microeconomics ............................... 3
ENG 203  Business Writing ................................................ 3
IMD 275  Workplace Management ..................................... 3
MA 123  Elementary Calculus .......................................... 3
MGT 200  Small Business Management ................................ 3
MGT 240  Business Ethics and Self-Management .................... 3
MGT 256  Operations Management ..................................... 3
MGT 258  Project Management .......................................... 3
MGT 274  Human Resource Management ............................ 3
MGT 287  Supervisory Management ................................... 3
MGT 288  Self-Management ............................................ 3
MKT 155  Personal Selling ............................................... 3
MKT 290  Advertising and Promotion ................................ 3
MKT 291  Retail Management ........................................... 3
MKT 293  Buying and Merchandising ................................... 3
MGT 299  Selected Topics in Business Management: (Topic) ...... 1-3
MKT 299  Selected Topics in Marketing: (Topic) ..................... 1-3
PSY 110  General Psychology OR ..................................... 3
SOC 101  Introduction to Sociology ..................................... 3
REA 100  Real Estate Principles I ........................................... 3
REA 120  Real Estate Marketing .......................................... 3
STA 291  Statistical Methods ............................................ 3

Subtotal  18

Total Credits  63
Choose 9 hours (not duplicated from the core) from the following Management and/or Technical Courses with no more than 3 hours selected from Technical Courses.

### Management Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>BAS 170</td>
<td>Entrepreneurship</td>
<td>3</td>
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<tr>
<td>BAS 200</td>
<td>Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 203</td>
<td>Customer Service Improvement Skills</td>
<td>3</td>
</tr>
<tr>
<td>BAS 212</td>
<td>Introduction to Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 256</td>
<td>International Business</td>
<td>3</td>
</tr>
<tr>
<td>BAS 274</td>
<td>Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 287</td>
<td>Supervisory Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 288</td>
<td>Personal and Organizational Leadership</td>
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</tr>
<tr>
<td>BAS 289</td>
<td>Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 290</td>
<td>Management, Ethics &amp; Society</td>
<td>3</td>
</tr>
<tr>
<td>BAS 291</td>
<td>Retail Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 299</td>
<td>Selected Topics in Management: (Track Topic)</td>
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<tr>
<td>OST 275</td>
<td>Office Management</td>
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### Technical Courses:

<table>
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<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ACT 177</td>
<td>Entrepreneurial Accounting</td>
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</tr>
<tr>
<td>ACT 196</td>
<td>Payroll Accounting</td>
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<tr>
<td>BAS 110</td>
<td>Worksheets in Business Applications</td>
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<tr>
<td>BAS 120</td>
<td>Personal Finance</td>
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<tr>
<td>BAS 125</td>
<td>Social Media Marketing: Fundamental Concepts, Skills, and Strategies</td>
<td>3</td>
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<tr>
<td>BAS 126</td>
<td>Social Media Marketing: Product Management and, Implementation Strategies</td>
<td>3</td>
</tr>
<tr>
<td>ENG 203</td>
<td>Business Writing</td>
<td>3</td>
</tr>
<tr>
<td>COE 199</td>
<td>Cooperative Education: (Business Administration)</td>
<td>1-3</td>
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<tr>
<td>BAS 280</td>
<td>Business Internship</td>
<td>(1-4)</td>
</tr>
<tr>
<td>CIT 155</td>
<td>Web Page Development</td>
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<tr>
<td>ECO 150</td>
<td>Introduction to Global Economics</td>
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<td>ECO 201</td>
<td>Principles of Microeconomics OR</td>
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</tr>
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<td>ECO 202</td>
<td>Principles of Macroeconomics</td>
<td>(3)</td>
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<tr>
<td>ENG 203</td>
<td>Business Writing OR</td>
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<tr>
<td>OST 235</td>
<td>Business Communications Technology</td>
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<td>LOM 100</td>
<td>Introduction to Logistics Management</td>
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<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
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</table>

**Total Credit** 63

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**Marketing and Retailing Track - 520201719**

*Offered at BSC, ELC, MDC, OWC, SKY, SMC, WKC*

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:

<table>
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<tr>
<th>Course</th>
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<th>Hours</th>
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<tbody>
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<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
<td>(3)</td>
</tr>
<tr>
<td>MKT 290</td>
<td>Advertising and Promotion</td>
<td>3</td>
</tr>
<tr>
<td>MKT 291</td>
<td>Retail Management</td>
<td>3</td>
</tr>
<tr>
<td>MKT 293</td>
<td>Buying and Merchandising</td>
<td>3</td>
</tr>
<tr>
<td>BAS 110</td>
<td>Worksheets in Business Applications OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 130</td>
<td>Productivity Software OR</td>
<td>(3)</td>
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<tr>
<td>OST 240</td>
<td>Software Integration</td>
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**Total Credit** 18

### Choose 3 hours from the following:

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<tr>
<td>BAS 120</td>
<td>Personal Finance</td>
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<td>BAS 125</td>
<td>Social Media Marketing: Fundamental Concepts, Skills, and Strategies</td>
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<tr>
<td>BAS 126</td>
<td>Social Media Marketing: Product Management and, Implementation Strategies</td>
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<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
<td>1-3</td>
</tr>
<tr>
<td>ECO 202</td>
<td>Principles of Macroeconomics</td>
<td>1-3</td>
</tr>
<tr>
<td>ENG 203</td>
<td>Business Writing</td>
<td>3</td>
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<td>MGT 200</td>
<td>Small Business Management</td>
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<tr>
<td>MGT 258</td>
<td>Project Management</td>
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<td>MGT 288</td>
<td>Self-Management</td>
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<tr>
<td>MKT 299</td>
<td>Selected Topics in Marketing: (Topic)</td>
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**Total Credits** 22-25

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**Diplomas**

### Organizational Leadership - 5202014029

*Offered at BSC, ELC, FFC, MDC, OWC, SKY, SMC, WKC*

*Available Completely Online*

### General Education:

**Area 1 =**

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tr>
<td>ENG 101</td>
<td>Writing I OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
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**Area 2 =**

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**General Education Subtotal** 6

### Required Technical:

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<tr>
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<td>BAS 284</td>
<td>Applied Management Skills</td>
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<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>ACC 201</td>
<td>Financial Accounting OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 280</td>
<td>Business Internship OR</td>
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</tr>
<tr>
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<td>(1-3)</td>
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**Required Technical Subtotal** 22-25

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**Real Estate Management Track - 520201706**

*Offered at BSC, BLC, ELC, WKC*

### Required:

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>REA 100</td>
<td>Real Estate Principles I</td>
<td>3</td>
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<tr>
<td>REA 121</td>
<td>Appraising</td>
<td>3</td>
</tr>
<tr>
<td>REA 225</td>
<td>Real Estate Finance</td>
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<td>REA 230</td>
<td>Real Estate Law</td>
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**Choose 6 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Real Estate Program Coordinator.**

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<thead>
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<th>Course</th>
<th>Title</th>
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<tr>
<td>REA 122</td>
<td>Construction and Blueprints</td>
<td>3</td>
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<tr>
<td>REA 200</td>
<td>Real Estate Principles II</td>
<td>3</td>
</tr>
<tr>
<td>REA 201</td>
<td>Property Management</td>
<td>3</td>
</tr>
<tr>
<td>REA 202</td>
<td>Real Estate Investments I</td>
<td>3</td>
</tr>
<tr>
<td>REA 203</td>
<td>Commercial and Industrial Property</td>
<td>3</td>
</tr>
<tr>
<td>REA 204</td>
<td>Land Planning and Development</td>
<td>3</td>
</tr>
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<td>REA 205</td>
<td>Farm Brokerage</td>
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</tr>
<tr>
<td>REA 212</td>
<td>Real Estate Investments II</td>
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<td>REA 220</td>
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<td>COE 199</td>
<td>Cooperative Education: (Business Administration)</td>
<td>1-3</td>
</tr>
<tr>
<td>BAS 280</td>
<td>Business Internship OR</td>
<td>(1-4)</td>
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</table>

**Total Credits** 63
Choose 11-12 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Business Administration Systems Program Coordinator.

<table>
<thead>
<tr>
<th>Course</th>
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</tr>
<tr>
<td>BAS 212</td>
<td>Introduction to Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 260</td>
<td>Professional Development and Protocol</td>
<td>2</td>
</tr>
<tr>
<td>BAS 267</td>
<td>Introduction to Business Law</td>
<td>3</td>
</tr>
<tr>
<td>BAS 274</td>
<td>Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 282</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BAS 290</td>
<td>Management, Ethics &amp; Society</td>
<td>3</td>
</tr>
<tr>
<td>CIT 130</td>
<td>Productivity Software OR</td>
<td>3</td>
</tr>
<tr>
<td>OST 240</td>
<td>Software Integration OR</td>
<td>(3)</td>
</tr>
<tr>
<td>BAS 110</td>
<td>Worksheets in Business Applications</td>
<td>(3)</td>
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<tr>
<td>OST 275</td>
<td>Office Management</td>
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Small Business Management - 5202014039

(Offered BSC, ELC, HZC, JFC, MDC, SKY, SMC, WKC)

Available Completely Online

General Education:

**Area 1 =**

<table>
<thead>
<tr>
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<tr>
<td>ENG 101</td>
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<td>3</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
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<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
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**Area 2 =**

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**Required Technical:**

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<tr>
<td>OST 105</td>
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<tr>
<td>BAS 160</td>
<td>Introduction to Business OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 170</td>
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</tr>
<tr>
<td>BAS 200</td>
<td>Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>BAS 212</td>
<td>Introduction to Financial Management * OR</td>
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<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>ACC 201</td>
<td>Financial Accounting OR</td>
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<tr>
<td>ACT 177</td>
<td>Entrepreneurial Accounting</td>
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<tr>
<td>BAS 280</td>
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<tr>
<td>COE 199</td>
<td>Cooperative Education</td>
<td>(1-4)</td>
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**Required Technical Subtotal** 25-28

Choose 6 hours (not duplicated from the core) from the following Technical Courses. Students may select other courses as approved by the Business Administration Systems Program Coordinator:

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<tr>
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<tr>
<td>ACC 202</td>
<td>Managerial Accounting</td>
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</tr>
<tr>
<td>BAS 170</td>
<td>Entrepreneurship*</td>
<td>3</td>
</tr>
<tr>
<td>BAS 201</td>
<td>Customer Service Improvement Skills</td>
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</tr>
<tr>
<td>BAS 212</td>
<td>Introduction to Financial Management * OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 274</td>
<td>Human Resource Management</td>
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<tr>
<td>BAS 284</td>
<td>Applied Management Skills</td>
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<tr>
<td>BAS 287</td>
<td>Supervisory Management</td>
<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>CIT 130</td>
<td>Productivity Software OR</td>
<td>3</td>
</tr>
<tr>
<td>OST 240</td>
<td>Software Integration OR</td>
<td>(3)</td>
</tr>
<tr>
<td>BAS 110</td>
<td>Worksheets in Business Applications</td>
<td>(3)</td>
</tr>
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</table>

**Approved Technical Courses** 6

**Total Credits** 37-40

*Not allowed as an Approved Technical Course if course has been taken as a required course.
Entrepreneurship – 5202013379
(Offered at ELC, GTW, HEC, HPC, MDC, OWC, SEC, SKY, WKC)

Required:
ACC 201 Financial Accounting OR ................................................. 3
ACT 177 Entrepreneurial Accounting ............................................... (3)
BAS 170 Entrepreneurship .................................................................. 3
BAS 282 Principles of Marketing ........................................................ 3
BAS 288 Personal and Organizational Leadership ............................... 3

Choose 3 credit hours from the following Technical Courses:
BAS 110 Worksheets in Business Applications ................................ 3
BAS 125 Social Media Marketing: Fundamental Concepts, Skills, and Strategies .......................................................... 3
BAS 201 Customer Service Improvement Skills ................................ 3

Total Credits 15

Equine Business Management - 5202013479
(Offered at BLC)

Required:
EQM 100 Introduction to Equine Studies ......................................... 3
EQM 120 Introduction to Commercial Breeding ................................. 3
EQM 140 Equine Business Management I ......................................... 3
BAS 160 Introduction to Business ..................................................... 3
EQM 240 Equine Business Management II ........................................ 3
EQM 246 Current Trends in the Equine Industry ................................. 3
PSY 110 General Psychology ........................................................... 3
MCT 101 Quality Management Principles ........................................ 3

Total Credits 23

Financial Perspectives - 5202013159
(Offered at ASC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, WKC)

Available Completely Online

Required:
ACC 201 Financial Accounting .......................................................... 3
BAS 120 Personal Finance .................................................................. 3
BAS 160 Introductions to Business ..................................................... 3
BAS 212 Introduction to Financial Management OR ........................... 3
BAS 293 Principles of Finance ........................................................... (3)

Choose 3 credit hours from the following Technical Courses:
BAS 290 Management, Ethics, & Society ........................................... 3
PHI 150 Business Ethics .................................................................... 3
MGT 240 Business Ethics and Self-Management ................................. 3

Total Credits 15

General Business - 5202013169
(Offered at ASC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, WKC)

Available Completely Online

Required:
BAS 160 Introduction to Business ..................................................... 3
CIT 105 Introduction to Computers OR ............................................. 3
OST 105 Introduction to Information Systems .................................... (3)
ACC 201 Any Economics Course ...................................................... 3

Total Credits 12

Hospitality Management - 5202013179
(Offered at BLC, BSC, HZC, SEC, WKC)

Required:
HOS 100 Introduction to Hospitality .................................................. 3
CUL 100 Culinary Arts Profession ..................................................... 2
HOS 282 Tourism Marketing ............................................................. 3

Total Credit Hours 15

Choose 9 hours from the following Technical Courses.
Students may select other courses (HOS or CUL) as approved by the Business Administration Systems Program Coordinator.

BAS 200 Small Business Management ............................................. 3
BAS 274 Human Resource Management ........................................... 3
COE 199 Cooperative Education: Business Administration OR ........ 1-3
BAS 280 Business Internship .............................................................. (1-4)
BAS 290 Management, Ethics & Society .......................................... 3
CUL 105 Applied Fundamentals of the Culinary Arts Profession ....... 3
CUL 125 Sanitation & Safety .............................................................. 3
CUL 270 Human Relations Management .......................................... 3
CUL 280 Cost & Control .................................................................. 3
HOS 160 Security for the Hospitality Industry ................................. 3
HOS 200 Cultural Heritage Tourism ................................................ 3
HOS 210 Front Office Operations & Management ........................... 3

Total Credits 17

Human Resource Management - 5202013359
(Offered at ASC, BSC, ELC, GTW, HEC, MDC, MYC, SEC, SKY, WKC)

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

Choose 9 hours from the following Technical Courses.
Students may select other courses as approved by the Business Administration Systems Program Coordinator.

BAS 201 Customer Service Improvement Skills ............................... 3
BAS 212 Introduction to Financial Management OR ........................... 3
BAS 280 Business Internship OR ....................................................... (1-4)
COE 199 Cooperative Education ...................................................... (1-3)
CIT 130 Productivity Software OR .................................................. 3
OST 240 Software Integration OR ..................................................... (3)
BAS 110 Worksheets in Business Applications ................................ (3)
BAS 284 Applied Management Skills ................................................. 3
BAS 288 Person & Organizational Leadership .................................... 3
BAS 290 Management, Ethics & Society .......................................... 3
BAS 299 Selected Topics in Management: (Track Topic) .................... 1-3
OST 275 Office Management ............................................................ (1-3)
PSY 180 Human Relations ............................................................... 3

Total Credits 18

Management - 5202013209
(Offered at ASC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, WKC)

Available Completely Online

Required:
BAS 283 Principles of Management .................................................. 3
BAS 212 Introduction to Financial Management OR ........................... 3
BAS 284 Applied Management Skills ................................................. 3

Choose 6 hours from the following Technical Courses.
Students may select other courses as approved by the Business Administration Systems Program Coordinator.

BAS 110 Worksheets in Business Applications ................................ 3
BAS 201 Customer Service Improvement Skills ................................ 3
BAS 256 International Business ......................................................... 3
BAS 260 Professional Development & Protocol ................................. 2
BAS 274 Human Resource Management ........................................... 3
BAS 287 Supervisory Management .................................................... 3
BAS 288 Person & Organizational Leadership .................................... 3
BAS 289 Operations Management .................................................... 3
BAS 290 Management, Ethics & Society .......................................... 3
BAS 291 Retail Management .............................................................. 3
BAS 299 Selected Topics Management: (Track Topic) ....................... 1-3
OST 275 Office Management ............................................................ 3

Total Credit Hours 15
Operations Management - 5202013369  
(Offered at BLC, BSC, GTW, HEC, HPC, MYC, SEC, WKC)

Required:
- BAS 160 Introduction to Business ............................................... 3
- BAS 287 Supervisory Management ............................................. 3
- BAS 288 Personal & Organizational Leadership .......................... (3)
- QM 101 Introduction to Quality Systems ..................................... 3
- BAS 289 Operations Management ............................................. 3
- MFG 256 Production Management ............................................. (3)
- COM 181 Basic Public Speaking OR .......................................... 3
- COM 252 Introduction to Interpersonal Skills ............................. (3)

Total Credits 15

Payroll Accounting Specialist - 5202013499  
(Offered at ASC, BSC, ELC, GTW, HEC, MDC, MYC, OW, SEC, SKY, WKC)

Required:
- ACC 201 Financial Accounting OR ............................................ 3
- ACT 196 Payroll Accounting ..................................................... 3
- ACT 279 Computerized Accounting Systems ............................. 3

Total Credits 9

Public Leadership - 5202013199  
(Offered at)

Required:
- BAS 288 Personal and Organizational Leadership ..................... 3
- BAS 160 Introduction to Business OR ....................................... 3
- BAS 170 Entrepreneurship ....................................................... (3)
- BAS 283 Principles of Management OR .................................... 3
- BAS 287 Supervisory Management ............................................ (3)
- COM 181 Basic Public Speaking OR ......................................... 3
- COM 252 Introduction to Interpersonal Communication ............ (3)

Choose 3 hours from the following Technical Courses.
- BAS 125 Social Media Marketing: Fundamental Concepts, Skills, and Strategies ......................................................... 3
- BAS 282 Principles of Marketing ............................................. 3
- BAS 299 Selected Topics in Business Management (Track Topic) 3

Total Credits 15

Real Estate Pre-Licensing - 5202013239  
(Offered at ASC, BLC, BSC, ELC, MDC, MYC, SEC, WKC)

Required:
- REA 100 Real Estate Principles I ............................................ 3

Choose 3 hours from the following Technical Courses.
Students may select other courses as approved by the Business Administration Systems Program Coordinator.
- REA 120 Real Estate Marketing ............................................... 3
- REA 200 Real Estate Principles II ........................................... 3

Total Credits 6

Real Estate Residential - 5202013249  
(Offered at BSC, ELC, MDC, MYC, SEC, WKC)

Required:
- REA 100 Real Estate Principles I ............................................ 3
- REA 120 Real Estate Marketing ............................................... 3

Choose 6 hours from the following Approved Technical Courses.
- REA 121 Appraising ................................................................. 3
- REA 122 Construction and Blueprints ...................................... 3
- REA 200 Real Estate Principles II ........................................... 3

REA 201 Property Management .................................................. 3
REA 225 Real Estate Finance .................................................... 3
REA 230 Real Estate Law ........................................................... 3

Total Credits 12

Small Business Management - 5202013269  
(Offered at ASC, BSC, ELC, HEC, HHC, JFC, MDC, MYC, OW, SEC, SMC, WKC)
Available Completely Online

Required:
- BAS 160 Introduction to Business OR ....................................... 3
- BAS 170 Entrepreneurship ....................................................... (3)
- BAS 200 Small Business Management ..................................... 3
- BAS 212 Introduction to Financial Management OR ................. 3
- Second Quantitative Reasoning Course .................................. (3)
- BAS 282 Principles of Marketing ............................................ 3
- ACC 201 Financial Accounting OR ......................................... 3
- ACT 177 Entrepreneurial Accounting ....................................... (3)
- BAS 287 Supervisory Management .......................................... 3
- BAS 288 Personal & Organizational Leadership ..................... (3)

Total Credits 18

Supervisory Management - 5202013279  
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HHC, JFC, MDC, MYC, OW, SEC, SKY, WKC)
Available Completely Online

Required:
- CIT 105 Introduction to Computers OR ................................. 3
- OST 105 Introduction to Information Systems ............................ (3)
- OST 235 Business Communications Technology .................... 3
- BAS 160 Introduction to Business ............................................ 3
- BAS 287 Supervisory Management .......................................... 3

Choose 6 hours from the following Technical Courses.
Students may select other courses as approved by the Business Administration Systems Program Coordinator.
- BAS 201 Customer Service Improvement Skills ....................... 3
- BAS 283 Principles of Management ........................................ 3
- BAS 274 Human Resource Management ................................. 3
- BAS 288 Personal and Organizational Leadership ..................... 3
- BAS 290 Management, Ethics & Society .................................. 3
- OST 275 Office Management .................................................. 3

Total Credits 18

Team Leadership - 5202013309  
(Offered at BLC, BSC, ELC, HEC, HPC, OW, SEC, SKY, SMC, WKC)
Available Completely Online

Required Courses:
- OST 105 Introduction to Information Systems OR .................. 3
- CIT 105 Introduction to Computers ........................................ (3)
- OST 235 Business Communications Technology .................... 3
- COM 181 Basic Public Speaking OR ....................................... 3
- COM 252 Introduction to Interpersonal Communications ........... (3)
- BAS 287 Supervisory Management .......................................... 3
- BAS 288 Personal & Organizational Leadership ..................... 3

Choose 3 hours from the following Technical Courses.
Students may select other courses as approved by the Business Administration Systems Program Coordinator.
- BAS 201 Customer Service Improvement Skills ....................... 3
- BAS 160 Introduction to Business ............................................ 3
- BAS 274 Human Resource Management ................................. 3
- BAS 290 Management, Ethics & Society .................................. 3

Total Credits 18
Medical Information Technology

Medical Information Technology graduates prepare medical records and reports, maintain paper and electronic files, order supplies, perform accounting procedures, work with medical insurance and coding, and receive patients in a variety of health care settings. Some of the degree tracks include Medical Administrative Assistant, Medical Insurance Coder, and Electronic Medical Records. Students enrolled in the degree or diploma programs are required to do an internship or capstone course.

Progression in the Medical Information Technology program contingent upon achievement of a grade of “C” or better in all required general education and technical courses and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Medical Information Technology program does not accept non-general education courses older than 5 years from returning or transfer students without the consent from the program coordinator.

Associate in Applied Science

Medical Information Technology - 5107167019

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

General Education:

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<td>ENG 101</td>
<td>Writing I</td>
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*Students can fulfill the Biology requirement with both BIO 137 and BIO 139.

Technical Core:

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</tr>
<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
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<tr>
<td>OST 110</td>
<td>Document Formatting and Word Processing</td>
<td>3</td>
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<tr>
<td>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>
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</tr>
<tr>
<td>MIT 103</td>
<td>Medical Office Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology OR</td>
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<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek and Latin</td>
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<tr>
<td>MIT 104</td>
<td>Medical Insurance</td>
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<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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<td>MIT 228</td>
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Medical Administrative Track - 510716705

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

Available Completely Online

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<th>Credits</th>
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<tr>
<td>ACC 201</td>
<td>Financial Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>MIT 227</td>
<td>Medical Office Software</td>
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<td>OST 235</td>
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Total 64

Medical Coding Track - 510716706

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

Available Completely Online

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<th>Description</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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</table>

Total 64

Medical Office Management Track – 510716709

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

Available Completely Online

<table>
<thead>
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<th>Course</th>
<th>Description</th>
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<tbody>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I OR</td>
<td>3</td>
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<tr>
<td>ACC 201</td>
<td>Financial Accounting I</td>
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<td>OST 235</td>
<td>Business Communications Technology</td>
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<td>BAS 160</td>
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<td>3</td>
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<td>BAS 283</td>
<td>Business Management</td>
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<tr>
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Total 64

Medical Transcription Track - 510716708

(Offered at BLC, BSC, ELC, HPC, HZC, MYC, OWC, SMC, WKC)

Available Completely Online

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

Total 64

*Diplomas

Medical Administrative Assistant - 5107164019

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

Available Completely Online

<table>
<thead>
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<th>Course</th>
<th>Description</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>ENG 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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*Students can fulfill the Biology requirement with both BIO 137 and BIO 139.
Technical or Support Courses

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<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>
<td>OST 213</td>
<td>Business Calculations for Office Professionals OR</td>
<td>3</td>
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<tr>
<td>MIT 105</td>
<td>Business Mathematics OR</td>
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<td>Medical Office Software</td>
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Subtotal: 42

Total: 49

Medical Records Specialist - 5107164069

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

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Technical or Support Courses

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Subtotal: 28-30

Hospital Admissions Specialist - 5107163029

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

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Total: 30

Medical Coding - 5107163079

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

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Subtotal: 42

Total: 22

Medical Receptionist - 5107163110

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

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Subtotal: 15

Certificates

Electronic Health Records Specialist – 5107163069

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

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Subtotal: 42

Total: 28-30
### Medical Scribe – 5107163099
*(Offered by BSC, BLC, ELC, HZC, JFC, MDC, MYC, OWC, SKY, SMC)*

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*Students can fulfill the Biology requirement with both BIO 137 and BIO 139.  

### Medical Transcriptionist – 5107163089
*(Offered at BSC, BLC, ELC, HZC, MYC, SEC, SKY, SMC, WKC)*

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### Medical Unit Coordinator - 5107163019
*(Offered at ASC, BSC, BLC, ELC, HPC, HZC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)*

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*Students can fulfill the Biology requirement with both BIO 137 and BIO 139.  **Courses Approved by the Program Coordinator suggestions: Any MIT course, BAS course, OST course, ACC course, CIT course, or AHS course.

### Supply Chain Management
The Supply Chain Management AAS degree incorporates knowledge of the field of logistics, supply chain management, quality management, lean concepts and application, business and operations management, critical communication skills, and digital literacy required for successful employment in the logistics industry. The program will prepare students to perform functions in the modern logistics and supply chain management environment as well as give the preparation to obtain two national industry credentials (CLA and CLT) as a result.

The Supply Chain Specialist Certificate program prepares students for skilled entry-level positions in the field of Logistics. Graduates will also obtain two national industry credentials (CLA and CLT) through successful completion of coursework and a passing score on the respective tests.

The Logistics Quality Technician Certificate program prepares students with quality management knowledge and strategic concepts of planning as a proactive catalyst for organizational and quality improvement in the logistics industry. Graduates will also obtain two national industry credentials (CLA and CLT) through successful completion of coursework and a passing score on the respective tests.

The Logistics Operations Certificate program provides students with knowledge in business, operations, and project management leading to a variety of positions in the logistics industry. Graduates will also obtain two national industry credentials (CLA and CLT) through successful completion of coursework and a passing score on the respective tests.

### Associate in Applied Science
The Supply Chain Management – 5202037029
*(Offered at BLC, GTW)*

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<td>ECO 101 Contemporary Economic Issues OR</td>
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<td>ECO 201 Principles of Microeconomics OR</td>
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<td>ECO 202 Principles of Macroeconomics OR</td>
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<td>MAT 110 Applied Mathematics or Higher Quantitative Reasoning</td>
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### Technical Courses

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<td>BAS 201 Customer Improvement Skills</td>
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Total Credits: 61-63
### Certificate

#### Logistics Operations – 5202033079
*(Offered at ELC, GTW, HPC, MDC)*

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**Total Credits** 21

#### Logistics Quality Technician – 5202033069
*(Offered at BLC, ELC, GTW, HPC, MDC)*

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**Total Credits** 21

#### Supply Chain Specialist – 5202033059
*(Offered at BLC, GTW, HPC, MDC)*

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<tr>
<td>LOM 102</td>
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<td>LOM 210</td>
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<td>LOM 235</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits** 15

### Business Communication

The certificate in business communication will prepare students for a career in the rapidly evolving and expanding community of global enterprise. Students will learn both theoretical and applied lessons concerning effective management, team building, evaluation, message construction, effective listening, and standards for establishing mentorships through networking and workplace integration and socialization. They will complete a 5 course, 15 credit hour sequence with 2 courses selected from among class options in business and 3 courses selected from among class options in communication. There is no definitive time frame for a student to complete the certificate and they may choose to incorporate it as part of their broader degree attainment.

#### Certificate

#### Business Communication – 5202013469
*(Offered at ASC, BSC, OWC, SEC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS 160</td>
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</tr>
<tr>
<td>BAS 274</td>
<td>3</td>
</tr>
<tr>
<td>BAS 282</td>
<td>3</td>
</tr>
<tr>
<td>BAS 283</td>
<td>3</td>
</tr>
<tr>
<td>BAS 287</td>
<td>3</td>
</tr>
</tbody>
</table>

**Subtotal** 6

### 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</td>
<td>3</td>
</tr>
<tr>
<td>ACC 201</td>
<td>3</td>
</tr>
<tr>
<td>ACT 101</td>
<td>3</td>
</tr>
<tr>
<td>ACT 102</td>
<td>3</td>
</tr>
<tr>
<td>ECO 101</td>
<td>3</td>
</tr>
<tr>
<td>ECO 202</td>
<td>3</td>
</tr>
<tr>
<td>Technical Courses*</td>
<td>9</td>
</tr>
</tbody>
</table>

**Total Credit Hours** 18-21

### Career Facilitator

The Career Facilitator Certificate Program is comprised of the Facilitating Career Development (FCD) curriculum from the National Career Development Association (NCDA), and will provide knowledge, skills, and experience in assisting clients with career assessments, labor market information, decision-making skills, employability skills, and job placement. Graduates are eligible to apply for certification as a Certified Career Services Professional (CCSP) with the NCDA; a case study examination and references are also required for certification. With additional career services work experience, graduates can pursue the Global Career Development Facilitator (GCDF) certification.

#### Certificate

#### Career Facilitator – 1311013019
*(Offered at )*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDC 151</td>
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</tr>
<tr>
<td>SDC 152</td>
<td>3</td>
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<tr>
<td>SDC 153</td>
<td>3</td>
</tr>
<tr>
<td>Oral Communication Course</td>
<td>3</td>
</tr>
<tr>
<td>Written Communication Course</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Science Course</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total** 16
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 – 510893039
(Offered at ASC, MDC, MYC, SMC)

CPR 100 CPR for Healthcare Professionals........................................... 1
NAA 100 Nursing Assistant Skills I.....................................................3
PHB 152 Phlebotomy: Clinical Experience ........................................ 1
PHB 170 Applied Phlebotomy .............................................................3
Total 8

Civil Engineering Technology

The Civil Engineering Technology program is an Associates of Applied Science program designed to offer students the training necessary to establish careers in civil engineering technology fields. Career options include materials testing, commercial, residential and highway surveying; highway construction management; construction management; construction estimation; construction documentation; construction site design and waste-water management.

The Civil Engineering Technology Program will focus on the field tasks and hands on aspects of construction.

Associate in Applied Science

Civil Engineering Technology - 1502017019
(Offered at BLC, BSC)

Required
ENG 101 Writing*…………………………………………………………3
ENG 102 Writing II…………………………………………………………3
CAD 100 Introduction to Computer-Aided Design OR…………………3
ACH 185 Computer-Aided Drafting I……………………………………(3)
MA 109 College Algebra*………………………………………………3
PHY 211 General Physics*………………………………………………5
Core
ACH 160 Building Materials and Construction I…………………………3
ACH 225 Structures…………………………………………………………3
CE 211 Surveying…………………………………………………………4
CET 150 Civil Engineering Graphics……………………………………..3
CET 200 Civil Engineering Materials……………………………………3
CET 210 Structural Analysis and Design..........................3
CET 220 Intermediate Surveying……………………………………..4
CET 260 Hydrology and Drainage……………………………………..3
MA 112 Trigonometry……………………………………………………2
Subtotal 40

Total 67

Technical Electives**

ACH 100 Construction Documents I……………………………………3
ACH 150 Construction Documents II……………………………………3
ACH 161 Building Materials and Construction II…………………3
ACH 285 Computer-Aided Drafting II……………………………………3
ACH 290 Building Codes I………………………………………………3
ACH 291 Construction Management……………………………………3
ACH 292 Building Codes II………………………………………………3
ACH 294 Specification Writing…………………………………………3
ACH 297 Estimating Techniques…………………………………………3
ACH 298 Computer 3D Modeling……………………………………...3
CAD 200 Intermediate Computer-Aided Design…………………4
CET 280 Highway Design………………………………………………3
CET 295 Independent Problems…………………………………………1-4
COE 199 Cooperative Education: CET……………………………………3
GIS 110 Spatial Data Analysis and Map Interpretation…………………3
GIS 120 Introduction to Geographic Information Systems……………3
GIS 210 Advanced Topics in GIS…………………………………………3
GLY 220 Principles of Physical Geology…………………………………4

* Satisfies General Education requirement for AAS degree
**Other course(s) approved by program coordinator

Community Dental Health Coordinator

This program is designed for graduates of a Commission on Dental Accreditation (CODA) accredited Dental Hygiene program who are interested in working in community dental health as Community Dental Health Coordinators (CDHCs). A CDHC is a Community Health Worker (CHW) with a focused skill set pertaining to oral health. CDHCs provide oral health education, prevention intervention, and low level dental care while helping patients navigate the public health system in pursuit of oral health care.

Certificate

Community Dental Health Coordinator – 5122083009
(Offered at BSC)

CDH 110 Dental Health Communication Skills………………………3
CDH 115 Dental Health Coordination, Documentation, Reporting, and Finance………………………………………..3
CDH 125 Dental Health Teaching and Learning Skills………………2
CDH 220 Dental Health Advocacy and Outreach…………………..3
CDH 245 Community Dental Health Coordinator Internship……….6
Total 17

Community Health Worker

The technical Certificate will prepare students for a scope of practice for community health workers highlighting six central roles of: communication, organizational and community outreach, advocacy, health coaching, organization, and legal/ethics of the profession. The program will consist of on-line and in-person lab experience.

Certificate

Community Health Worker – 5115043010
(Offered at )

CHW 101 Communication for Community Health Worker…………….1
CHW 102 Organizational and Community Outreach………………….1
CHW 103 Advocacy............................................................................1
CHW 104 Health Coaching.............................................................1
CHW 105 Organization of Community Health Worker………………..1
CHW 106 Legal and Ethics for Community Health Worker……………1
Total 6

113
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:
ENG 101 Writing I .............................................. 3
Quantitative Reasoning (MAT 105 excluded) .................. 3
Natural Sciences .............................................. 3
Social/Behavioral Sciences .................................... 3
Heritage/Humanities .......................................... 3
Oral Communications ......................................... 3
Subtotal 18

Technical Core:
CAD 100 Introduction to Computer Aided Design ............... 3
CAD 102 Drafting Fundamentals ................................ 4
CAD 112 Engineering Graphics .................................. 4
CAD 200 Intermediate Computer Aided Design ............... 4
CAD 201 Parametric Modeling .................................. 4
CAD 298 Practicum OR .......................................... 1-3
CAD 299 Cooperative Education (1-3) Technical Electives
(Choose from the Technical Electives List) ...................... 22
Subtotal 42-44

Total Credits 60-62

Technical Electives: (This list is not all inclusive, other courses may be taken as approved by the program coordinator such as courses with prefix ACH, BRX, CAR, SMT, and PLW.)

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 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 ............... 3
DPT 102 3D Printing Technology Fundamentals .............. 3
ACH 110 Survey of the Architectural Profession .............. 1

ACH 160 Building Materials and Construction I ............... 3
ACH 291 Construction Management ......................... 3
BRX 120 Basic Blueprint Reading ............................... 3
BRX 220 Blueprint Reading for Construction .................. 3

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 100 Introduction to Computer Aided Design ............... 3
CAD 102 Drafting Fundamentals ................................ 4
CAD 112 Engineering Graphics .................................. 4
CAD 200 Intermediate Computer Aided Design ............... 4
CAD 201 Parametric Modeling .................................. 4
CAD 298 Practicum OR .......................................... 1-3
CAD 299 Cooperative Education (1-3) Technical Electives
(Choose from the Technical Electives List) ...................... 22
Subtotal 42-44

Total Credits 48-50

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 130 Descriptive Geometry .................................. 4
CAD 150 Programming in CAD .................................. 4
CAD 212 Industrial Drafting Processes ......................... 4
CAD 216 Building Information Modeling ..................... 4
CAD 222 Mechanical Design ..................................... 4
CAD 220 Architectural Design ................................... 4
CAD 230 Construction Techniques ............................... 4
CAD 240 Advanced Dimensioning and Measurement ......... 4
CAD 252 Commercial Detailing .................................. 4
CAD 262 Working Drawings ...................................... 4
CAD 292 Industrial Applications ................................. 4
CAD 293 Special Problems ........................................ 1-4
DPT 100 Introduction to 3D Printing Technology ............... 3
DPT 102 3D Printing Technology Fundamentals .............. 3
ACH 110 Survey of the Architectural Profession .............. 1

ACH 160 Building Materials and Construction I ............... 3
ACH 110 Survey of the Architectural Profession .............. 1

Certificates

Architectural Designer – 151303109

(Offered at BLC, HZC, HPC, WKC)

BRX 120 Basic Blueprint Reading OR ............................ 3
BRX 220 Blueprint Reading for Construction .................. 3

BRX 120 Basic Blueprint Reading OR ............................ 3
BRX 220 Blueprint Reading for Construction .................. 3

Total Credits 18-19
### Building Information Modeling – 1513013119
*(Offered at BLC, HZC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ACH 110</td>
<td>Survey of the Architectural Profession</td>
<td>1</td>
</tr>
<tr>
<td>ACH 160</td>
<td>Building Materials and Construction I OR</td>
<td>3</td>
</tr>
<tr>
<td>ACH 291</td>
<td>Construction Management</td>
<td>(3)</td>
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<tr>
<td>CAD 120</td>
<td>Introduction to Architecture</td>
<td>4</td>
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<tr>
<td>CAD 216</td>
<td>Building Information Modeling</td>
<td>4</td>
</tr>
<tr>
<td>CAD 230</td>
<td>Construction Techniques</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
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</tr>
</tbody>
</table>

### Civil Drafter - 1513013049
*(Offered at ASC, BLC, BSC, HZC, SEC)*

**General Education:**
- Quantitative Reasoning (MAT 105 excluded) .............. 3

**Technical Core:**
- CAD 100 Introduction to Computer Aided Design .... 3
- CAD 102 Drafting Fundamentals ..................... 4
- CAD 112 Engineering Graphics ....................... 4

**Total Credits** 16

### Technical Electives

#### CAD 200 Intermediate Computer Aided Design .......... 4

### Surveying Core:

**Choose 9-12 hours from the following courses:**
- CAD 108 Introduction to Surveying .................. 3
- CAD 130 Descriptive Geometry ...................... 4
- SMT 110 Principles of Surveying .................... 3
- SMT 130 Land Surveying Graphics ................... 3
- SMT 160 Construction Surveying ..................... 3
- SMT 210 Advanced Surveying Measurement .......... 3
- SMT 220 Surveying Lab ................................ 3
- SMT 230 Land Boundary Location .................... 3
- SMT 250 Mine Surveying .............................. 3

**Subtotal** 11

**Total Credits** 23-26

### Computer Assisted Drafter - 1513013059
*(Offered at ASC, BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, WKC)*

**Available Completely Online**

**General Education:**
- Written Communication, Oral Communications, or Humanities/Heritage .................. 3

**Technical Core:**
- CAD 100 Introduction to Computer Aided Design .... 3
- CAD 102 Drafting Fundamentals ..................... 4
- CAD 112 Engineering Graphics ....................... 4

**Total Credits** 17

### 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

**Technical Core:**
- CAD 100 Introduction to Computer Aided Design .... 3
- CAD 102 Drafting Fundamentals ..................... 4
- CAD 112 Engineering Graphics ....................... 4

**Total Credits** 24-25

### 3D Modeler – 1513013099
*(Offered at ASC, BLC, ELC, HPC, HZC, JFC, SEC, WKC)*

**Available Completely Online**

**General Education:**
- Written Communication, Oral Communications, or Humanities/Heritage .................. 3

**Technical Core:**
- CAD 100 Introduction to Computer Aided Design .... 3
- CAD 200 Intermediate CAD ............................ 4
- CAD 201 Parametric Modeling ......................... 4

**Total Credits** 16-18

### Computer & Information Technologies


This program includes tracks in Business Software and Support, Cloud Computing Technologies, Data Center Technologies, General, Geospatial Technologies, Informatics, Information Security, Internet Technologies, Network Administration, Network Technologies, Programming, and Video Game Design, with a core of courses common to all. The core includes a general education component essential to a collegiate education and a technical component giving students an introduction to information systems, computer applications, program development, system maintenance, networking, security, database design, and collaborative system development. In addition to core courses, students take specialty courses for their selected track.

- Students graduating with a degree or certificate in Computer & Information Technologies may only use a course with a grade of “C” or higher (or a “Pass” for Pass/Fail courses) to fulfill a core or track graduation requirement.
- The Computer & Information Technologies department does not accept non-General Education courses older than 5 years from returning or transfer students without consent from the local program coordinator.
- Students may not use one course to fulfill multiple requirements.

The Business Software and Support Track emphasizes several aspects of application software. It includes such productivity applications as:
word processing, spreadsheets, database management, presentation, geographic information systems, website development/maintenance, and help desk tracking systems. Completion of this track will prepare students to work with computer-based systems in business and industry.

Business Software Specialist - Designed to train students to operate a wide variety of software packages and to assist businesses in developing and maintain databases, producing financial statements, and developing applications using various software packages.

Computer Applications Support - Provides an in-depth knowledge of application software, computer system configurations, Help Desk Tools/Software, end-user documentation, user training, and other user support skills.

Software Support - Provides an in-depth knowledge of application software, computer system configurations, and data driven websites.

The **Cloud Computing Technologies Track** covers the fundamentals of building IT infrastructure using cloud-based technologies. The track is designed to teach future cloud technologists how to optimize the use of cloud-based services and how these services fit into cloud-based solutions. Because architectural solutions can differ depending on industry, type of applications, and size of business, this track emphasizes best practices for cloud technologies, and it recommends various design patterns to help students think through the process of architecting optimal IT cloud-based solutions.

Within the Cloud Computing Technologies Track there is an Amazon Web Services (AWS) course sequence that is designed to prepare students to pass the AWS Cloud Practitioner Certification Exam and the AWS Cloud Architect Certification Exam.

The Cloud Computing Technologies track also includes a course sequence in Data Center Technology. This track provides experience in areas such as virtualization, storage, security, high availability and adherence to standards in provisioning of computing resources that meet business and organizational needs. The Data Center sequence can be used to prepare students for entry level positions in organizations that design and manage data centers.

The General Track will give students the basic concepts in computer hardware and software, databases, programming, security, networking and upon completion of the track, the graduate will be qualified to take industry designed and recognized certification examinations. This degree plan will offer maximum flexibility by providing students with a range of options for program specialization with the knowledge and skills sufficient to be employable and successful in a variety of professional computing areas. Possible employment opportunities may include but are not limited to areas such as cloud computing, virtualization, programming and application development, network and system administration, and other new and innovative developments in Information Technology in for both small and large organizations.

Geospatial Technologies Track (GST), is a rapidly growing and evolving field which enables users of location based data the ability to make informed decisions, utilizing a large array of sensors and demographics. GST utilizes both time and place as analysis factors and is recognized by the U.S. Department of Labor (DoL) as a high growth, high wage, green industry with a bright outlook. The curriculum is based upon national standards, including the DoL Geospatial Technology Competency Model (GTCM) and the NSF funded GeoTech Center model courses. Completers of the Associate of Applied Science degree will have the skills for employment in GST or associated fields such as Unmanned Aircraft System, agriculture, remote sensing, geospatial intelligence, environmental science, crime analysis, and/or demographics.

The Informatics Track prepares students interested in an advanced study of database design/management and computer programming. The curriculum may also be used to prepare students for entry into bachelor-level programs in computer science and informatics.

The Information Security Track will provide a solid background in information security. Fundamentals of information security, offensive and defensive techniques, and security topics such as operating system security, network security design, or other security topics are covered. This track will help prepare students for entry-level positions of network security, auditing and penetration testing, firewall configuration, and computer crime investigation.

The Internet Technologies Track prepares students to design, program, and maintain Internet-based services. With specializations in web programming and web server administration, this track will help prepare students for positions developing and maintaining interactive web sites.

The Network Administration Track provides the concepts and skills needed to design, set-up, maintain and expand network and telecommunications systems. The curriculum provides specific training in Cisco, and/or Microsoft network systems. Upon completion of the track, the graduate will be qualified to take industry designed and recognized certification examinations. Employment opportunities include entry-level positions in installation and administration of local and wide area networks in medium to large organizations, and computer network administration positions in small businesses.

The Network Technologies Track provides the concepts and skills needed to set up, maintain, and expand networked computer systems. This track requires sequences in Microsoft Windows, Cisco, and UNIX/Linux as well as courses providing deeper insight into Internet protocols and network security. Employment opportunities include entry-level positions in installation and administration of local area networks in medium to large organizations and as computer network administrators in small businesses.

The Programming Track prepares students to design, develop, and maintain computer programs written in current and emerging programming languages. With tracks in Information Systems and Software Development, students successfully completing this track are prepared for entry-level positions in computer programming.

The Information Systems track is designed with an emphasis on programming for a business environment. Students completing the Information Systems track study basic business concepts, one programming language at an advanced level, and two programming languages at an introductory level.

The Software Development track emphasizes computer software development. Students completing the Software Development track study a minimum of two computer programming languages at an advanced level and additional programming language(s) at an introductory level. Flexibility within this track allows students to focus on a specific area of software development by means of the programming languages they choose to study (object-oriented programming, database programming, game development, etc.).

The Video Game Design Track prepares students to design, develop, and market digital games and simulations. This track focuses on game development with an emphasis on game programming.

**A+ Prep Certificate**

The A+ Prep Certificate offers students the opportunity to earn a credential demonstrating basic competency in the area of computer hardware and software. The certificate consists of one course that
prepares students for the CompTIA A+ certification exams which are recognized by the computer industry around the world. The certificate gives those who are unable, or do not need, to complete a degree a way of demonstrating their level of proficiency.

**AWS Cloud Architecting Certificate**

The AWS Cloud Architecting Certificate covers the fundamentals of building IT infrastructure on Amazon Web Services, or AWS. The track is designed to teach future solutions architects how to optimize the use of the AWS Cloud by understanding AWS services and how these services fit into cloud-based solutions. Because architectural solutions can differ depending on industry, type of applications, and size of business, this track emphasizes best practices for the AWS Cloud, and it recommends various design patterns to help students think through the process of architecting optimal IT solutions on AWS.

**CISCO Networking Associate Certificate**

The CISCO Networking Associate Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of computer networking. This certificate consists of the core skills that students need to effectively build and maintain computer networks. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program. The CISCO Networking Associate Certificate prepares students for the CCNA exam which is recognized by the computer industry around the world.

**CISCO Networking Enhanced Certificate**

The CISCO Networking Enhanced Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of computer networking. This certificate consists of the core skills that students need to effectively build and maintain computer networks. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program. The CISCO Networking Associate Certificate prepares students for the CCNA and Net+ exams which are recognized by the computer industry around the world.

**CIT Fundamentals Certificate**

The CIT Fundamentals Certificate offers students the opportunity to earn a credential demonstrating basic competency in the area of computers. The certificate consists of a natural progression of classes that are required for the Associate in Applied Science degree in Computer & Information Technologies. It gives those who are unable, or do not need, to complete a degree a way of demonstrating their level of computer proficiency.

**Computer Support Technician Certificate**

The Computer Support Technician Certificate offers students the opportunity to earn a credential demonstrating computer support technician competencies. The certificate consists of the core skills that students need for computer and end-user support. In addition, this certificate will provide a way for professionals currently in the industry to update their computer support technician skills and for new students to show progress in the CIT program.

**Computer Tech Basic Certificate**

The Computer Tech Basic Certificate offers students the opportunity to earn a credential demonstrating basic competency in the area of computer information technology. The certificate consists of a natural progression of classes that are required for the Associate in Applied Science degree in Computer & Information Technologies. It gives those who are unable, or do not need, to complete a degree a way of demonstrating their level of computer proficiency. The Computer Tech Basic Certificate prepares students for the CompTIA A+ and Net+ certification exams which are recognized by the computer industry around the world.

**Computer Technician Certificate**

The Computer Technician Certificate offers students the opportunity to earn a credential demonstrating computer technician competencies. This certificate consists of the core skills that students need to achieve the industry A+ and Security+ certifications. In addition, this certificate will provide a way for professionals currently in the industry to update their technician skills and for new students to show progress in the CIT program.

**Digital Forensics Certificate**

The Digital Forensics Certificate offers students the opportunity to earn a credential demonstrating skills in digital forensics. Digital forensics covers the retrieval and investigation of material found in digital devices. Digital material refers to all methods of electronic data storage and transfer devices, including computers, laptops, cell phones, tablets, gaming consoles, and portable storage devices. The goal of digital forensics is to ensure the integrity of that digital material while thoroughly examining it. Digital forensics requires in-depth knowledge of the understanding of the legal as well as the technical aspects of cybercrime. This certificate consists of the core skills that students need to demonstrate basic digital forensic skills. It provides an introduction to information security and incident response, forensic preparation and data recovery and analysis. The goals of this certificate focus on the principles and techniques used to identify, search, seize and analyze digital media, and to conduct cyber investigations. In addition, this certificate will provide a way for professionals currently in the industry to update their digital forensic skills and for new students to show progress in the CIT program.

**Informatics Advanced Certificate**

The Informatics Advanced Certificate builds on the Informatics Generalist certificate for those in the workforce looking to gain deeper knowledge about informatics structure and analysis. It will prepare them to work with collaboration software, such as SharePoint, will work with database programming and mining.

**Informatics Generalist Certificate**

The Informatics Generalist Certificate is for students in the workforce looking to gain knowledge about informatics. It will prepare them to use and understand existing software and will introduce them to data analysis and how it can be used.

**Informatics Programming Certificate**

The Informatics Programming Certificate offers students the opportunity to earn a credential demonstrating informatics programming competencies. It consists of core abilities that students need to design well-structured databases and effectively develop secure applications using an object-oriented programming language to interface with databases.

**Information Security Specialist Certificate**

The Information Security Specialist Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of information security. This certificate consists of the core skills that
students need to effectively build and maintain information security systems. In addition, this certificate will provide a way for professionals currently in the industry to update their information security skills and for new students to show progress in the CIT program.

**Microsoft Enterprise Administrator Certificate**

The Microsoft Enterprise Administrator Certificate offers students the opportunity to earn a credential demonstrating skills in the administration and design of Microsoft enterprise networks. This certificate consists of the core skills that students need to effectively plan, build, and maintain a Microsoft network. In addition, this certificate will provide a way for professionals currently in the industry to update their Microsoft network administrator skills.

**Microsoft Network Administrator Certificate**

The Microsoft Network Administrator Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of computer networking. This certificate consists of the core skills that students need to effectively build and maintain computer networks. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program.

**Mobile Apps 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.

**Net+ Prep Certificate**

The Net+ Prep Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of computer networking. This certificate consists of the core skills that students need to effectively build and maintain computer networks. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program. The Net+ Prep Certificate prepares students for the CompTIA Net+ exam which is recognized by the computer industry around the world.

**Network Technologies Specialist Certificate**

The Network Technologies Specialist Certificate offers students the opportunity to earn a credential demonstrating network technology competencies. This certificate consists of specialized networking classes that students need to effectively configure and maintain networks using network technologies specialist skills. In addition, this certificate will provide a way for professionals currently in the industry to update their network technologies specialist skills.

**Productivity Software Specialist Certificate**

The Productivity Software Specialist Certificate offers students the opportunity to earn a credential demonstrating productivity software competencies. This certificate consists of the core skills that students need to effectively use various productivity software products. In addition, this certificate will provide a way for professionals currently in the industry to update their productivity software skills and for new students to show progress in the CIT program.

**Programming Certificate**

The Programming Certificate offers students the opportunity to earn a credential demonstrating programming competencies. This certificate consists of the core skills that students need to effectively develop programs using multiple computer languages. In addition, this certificate will provide a way for professionals currently in the industry to update their programming skills and for new students to show progress in the CIT program.

**Security + Prep Certificate**

The Security+ Prep Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of information security. This certificate consists of the core skills that students need to effectively build and maintain information security systems. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program. The Security+ Prep Certificate prepares students for the CompTIA Security+ exam which is recognized by the computer industry around the world.

**Social Media Specialist Certificate**

The Social Media Specialist Certificate prepares students for careers as social media analysts to leverage social media tools to increase business awareness and presence.

**Web Administration Certificate**

The Web Administration Certificate offers students the opportunity to earn a credential demonstrating web administration competencies. This certificate consists of the core skills that students need to effectively build, and maintain web sites through network and web server administration. In addition, this certificate will provide a way for professionals currently in the industry to update their web administration skills and for new students to show progress in the CIT program.

**Web Programming Certificate**

The Web Programming Certificate offers students the opportunity to earn a credential demonstrating web programming competencies. This certificate consists of the core skills that students need to effectively develop websites using web programming. In addition, this certificate will provide a way for professionals currently in the industry to update their web programming skills and for new students to show progress in the CIT program.

**Video Game Design Certificate**

The Video Game Design Certificate prepares students to design, develop, and market digital games and simulations.
Associate in Applied Science

Computer and Information Technologies - 1101017089
(Offered at ASC, BLC, BSC, ELG, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWK, SEC, SKY, SMC, WKC)

General Education
ENG 101 Writing I .............................. 3
MAT 126 Technical Algebra and Trigonometry (or higher) 3
Social and Behavioral Science Course .................. 3
Heritage or Humanities Course ......................... 3
Natural Sciences Course ................................ 3
Subtotal ................................ 15

Technical Core Requirements
CIT 105 Introduction to Computers .................... 3
CIT 111 Computer Hardware and Software .......... 4
CIT 120 Computational Thinking ..................... 3
CIT 170 Database Design Fundamentals .............. 3
CIT 180 Security Fundamentals ....................... 3
Approved Level I Networking Course ................. 4
Approved Level I Programming Language Course . 3
CIT 293 CIT Employability Studies .................. 1
Technical Core Subtotal ........................... 24

Business Software and Support Track – 110101717
(Offered at ASC, BLC, BSC, HZC, HEC, HPC, JFC, MDC, MYC, OWK, SEC, WKC)
CIT 130 Productivity Software ....................... 3
CIT 234 Advanced Productivity Software ............. 3
CIT 236 Advanced Data Organization Software .... 3
Approved Business OR Management Course ........ 3
Completion of a Business Software and Support Track Course Sequence in
Business Software Specialist OR
Computer Support OR
Software Support .................................. 9
Track Subtotal .................................... 21
Total .............................................. 60

Business Software and Support Track Course Sequences:

Business Software Specialist
CIT 171 SQL I ...................................... 3
Approved CIT Technical Course ...................... 3
Approved Business or Management Course ........ 3
Subtotal ......................................... 9

Computer Support
CIT 232 Help Desk Operations ...................... 3
Approved CIT Technical Course ..................... 3
Approved CIT Technical Course ..................... 3
Subtotal ......................................... 9

Software Support
CIT 150 Internet Technologies OR .................. 3
CIT 155 Web Page Development OR ................ 3
CIT 157 Web Site Design and Production .......... 3
CIT 253 Data-Driven Web Pages: Topic ............... 3
ENG 102 Writing II OR
Oral Communications Course ...................... (3)
Subtotal ......................................... 9

Cloud Computing Technologies Track – 110101716
(Offered at BLC, JFC, WKC)
CIT 201 Information Storage Management ............ 3
CIT 217 Linux/Linux Administration .................. 3
CIT 262 MS Server Infrastructure ..................... 3
Completion of a Cloud Computing Technologies Track Course Sequence in
Amazon Web Services OR
Data Center Technologies .......................... 12-13
Track Subtotal .................................... 21-22

Cloud Computing Technologies Track Course Sequences:

Amazon Web Services
CIT 206 Amazon Web Services Practitioner .......... 3
CIT 207 Amazon Web Services Architecting ......... 3
CIT 167 Routing and Switching Essentials ........... 3
Approved CIT Elective ................................ 3
Subtotal ......................................... 12

Data Center Technologies
CIT 203 Introduction to Virtualization ................ 3
CIT 204 VMware Optimize and Scale ................. 3
CIT 205 Cloud Infrastructure and Services .......... 3
Approved Networking Elective ....................... 3-4
Subtotal ......................................... 12-13
Total ............................................. 60-61

General Track – 110101720
(Offered at ASC, ELG, HZC, HEC, HPC, JFC, MDC, MYC, OWK, WKC)
CIT Technical Electives* .................................. 21-25
Track Subtotal ..................................... 21-25
Total ............................................. 60-64

*At least 12 credit hours must be at the 200 level, or other courses approved by the Program Coordinator. Students must meet with the Program Coordinator or designee and complete a study plan PRIOR to beginning the General Track.

Geospatial Technologies Track – 110101718
(Offered at BLC)
CIT 125 Introduction to Digital Maps .................. 3
CIT 225 GIS Software Tools .......................... 3
GIS 145 Remote Sensing ............................. 3
GIS 255 Geospatial Programming .................... 3
GIS 260 GIS Web Mapping ........................... 3
CT 229 Selected Topics in GIS ......................... 3
CT 290 Internship .................................... 3
Track Subtotal ..................................... 21
Total .............................................. 60

Informatics Track – 110101719
(Offered at BLC, WKC)
ENG 102 Writing II OR
Oral Communications Course ...................... 3
Internet Technologies OR ........................... 3
Web Page Development OR ......................... 3
Web Site Design and Production ..................... 3
Java II OR ........................................ 3
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 138 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

**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

**Sequence Subtotal** 11

**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

**Information Security Track - 110101712**

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

- CIT 182 Perimeter Defense .......................................................... 3
- CIT 184 Attacks and Exploits ...................................................... 3
- CIT 217 UNIX/Linux Administration ........................................... 3

**Approved Network Elective Courses**
- CIT 288 Network Administration ................................................... 6
- CIT 219 Approved Security Elective Course ..................................... 3

**Approved CIT Technical Course(s)**
- CIT 217 Approved CIT Technical Course(s) .................................. 3

**Track Subtotal** 21

**Total** 60

**Internet Technologies Track - 110101710**

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

**Complete two of the following:**
- CIT 150 Internet Technologies .................................................... 3
- CIT 155 Web Page Development .................................................. 3
- CIT 157 Web Site Design and Production ................................... 3

**Subtotal** 6

- CIT 257 Applied Internet Technologies OR ................................... 3
- CIT 258 Internet Technologies Seminar ....................................... 3

**Completion of an Internet Technologies Track Course Sequence in:**
- Web Programming OR
- Web Administration .............................................................. 12

**Track Subtotal** 21

**Total** 60

Internet Technologies Track Course Sequences:

**Web Programming Course Sequence:**
- Approved Level I Web Programming Language Course .................. 3
- Approved Level II Web Programming Language Course ................ 3

**CIT 171** SQL I ................................................................. 3
**CIT 253** Data-Driven Web Pages Topic ........................................ 3

**Sequence Subtotal** 12

**Web Administration Course Sequence:**
- **CIT 219** Internet Protocols .................................................... 3
- **CIT 255** Web Server Administration ........................................... 3
- **CIT 261** MS Active Directory Services AND .................................. 3
- **CIT 262** MS Server Infrastructure ................................................ 3
- **CIT 264** Microsoft Server Management ........................................ 3
- **CIT 217** UNIX/Linux Administration ........................................... 3
- **CIT 218** UNIX/Linux Net Infrastructure ........................................ 3

**Sequence Subtotal** 12

**Network Administration Track - 110101708**

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

**Network Administration Track Course Sequence** ................................ 12

**Sequence in:**
- Microsoft Windows Administration
- Cisco Networking Associate
- Approved CIT Technical Courses ................................................. 9-12

**Track Subtotal** 21-24

**Total** 60-63

**Microsoft Windows Administration Course Sequence**
- **CIT 213** Microsoft Client Configuration .................................... 3
- **CIT 261** MS Active Directory Services ....................................... 3
- **CIT 262** MS Server Infrastructure ................................................ 3
- **CIT 264** Microsoft Server Management ....................................... 3

**Subtotal** 12

**Cisco Networking Associate Course Sequence**
- **CIT 167** Routing & Switching Essentials .................................. 4
- **CIT 209** Scaling Networks ....................................................... 4
- **CIT 212** Connecting Networks ................................................. 4

**Subtotal** 12

**Network Technologies Track - 110101713**

(Offered at ASC, BLC, JFC, MDC, MYC, OWC)

- **CIT 219** Internet Protocols .................................................... 3
- **CIT 288** Network Security ....................................................... 3

**Select 15 hours from the courses listed below. At least 8 hours must be from a single platform and at least 4 hours must be from a different platform:**
- **CIT 219** Internet Protocols .................................................... 3

**Track Subtotal** 21

**Total** 60-63

**Approved Network Technologies Course Sequences**

**Microsoft Platform**
- **CIT 213** Microsoft Client Configuration .................................... (3)
- **CIT 261** MS Active Directory Services ....................................... (3)
- **CIT 262** MS Server Infrastructure ................................................ (3)
- **CIT 264** Microsoft Server Management ....................................... (3)

Other Microsoft networking courses as approved by local Program coordinator
### UNIX/Linux Platform

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>CIT 217</td>
<td>UNIX/Linux Administration AND</td>
<td>3</td>
</tr>
<tr>
<td>CIT 218</td>
<td>UNIX/Linux Net Infrastructure</td>
<td>3</td>
</tr>
<tr>
<td>CIT 255</td>
<td>Web Server Administration</td>
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</table>

### Cisco Platform

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIT 167</td>
<td>Routing &amp; Switching Essentials</td>
<td>4</td>
</tr>
<tr>
<td>CIT 209</td>
<td>Scaling Networks</td>
<td>4</td>
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<tr>
<td>CIT 212</td>
<td>Connecting Networks</td>
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</table>

### Data Center Platform

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>CIT 201</td>
<td>Information Storage Management</td>
<td>3</td>
</tr>
<tr>
<td>CIT 203</td>
<td>Introduction to Virtualization</td>
<td>3</td>
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<tr>
<td>CIT 204</td>
<td>VMWare Optimize and Scale</td>
<td>3</td>
</tr>
<tr>
<td>CIT 205</td>
<td>Cloud Infrastructure and Services</td>
<td>3</td>
</tr>
</tbody>
</table>

### Programming Track - 110101709

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

- Approved Level II Programming Language | 3 |
- Approved Level I, II, or III Programming Language | 3 |
- Approved CIT Technical Course(s) | 3 |
- Completion of a Programming Track Course Sequence in: | 12 |
- Information Systems OR Programming Software Development

**Track Subtotal:** 21

**Total:** 60

### Programming Track Course Sequences:

#### Information Systems

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 171</td>
<td>SQL I</td>
<td>3</td>
</tr>
</tbody>
</table>
- Approved CIT Technical Courses | 3 |
- Approved Management or Business Course | 3 |
- Approved Business Course | 3 |

**Sequence Subtotal:** 12

#### Programming Software Development

- Approved Level I Programming Language | 3 |
- Approved Level II Programming Language | 3 |

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 150</td>
<td>Web Page Development OR</td>
<td>3</td>
</tr>
<tr>
<td>CIT 155</td>
<td>Web Site Design and Production</td>
<td>3</td>
</tr>
<tr>
<td>CIT 253</td>
<td>Data-Driven Web Pages: Topic</td>
<td>3</td>
</tr>
</tbody>
</table>

**Sequence Subtotal:** 12

### Video Game Design Track - 110101715

(Offered at BLC, HEC, HZC, MYC, MDC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>CIT/IMD 124</td>
<td>Introduction to Game Development</td>
<td>3</td>
</tr>
<tr>
<td>CIT/IMD 274</td>
<td>Seminar in Game Development</td>
<td>3</td>
</tr>
<tr>
<td>CIT/IMD 221</td>
<td>Computer Graphics</td>
<td>3</td>
</tr>
<tr>
<td>CIT/IMD 222</td>
<td>3D Modelling</td>
<td>3</td>
</tr>
<tr>
<td>CIT/IMD 223</td>
<td>3D Animation</td>
<td>3</td>
</tr>
<tr>
<td>CIT/IMD 273</td>
<td>Game Production</td>
<td>3</td>
</tr>
</tbody>
</table>
- Video Game Design Elective | 3 |

**Track Subtotal:** 21

**Total:** 60

### Course Choice Lists

#### Approved Business Courses*:

- ACC 201 | Financial Accounting | 3 |
- ACT 101 | Fundamentals of Accounting I | 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 215 | Information System Analysis | 3 |
- IFM 225 | Advanced Informatics | 3 |

Any business or informatics course approved by Program Coordinator | 3 |

#### Approved Management Courses*:

- BAS 200 | Small Business Management | 3 |
- BAS 274 | Human Resource Management | 3 |
- BAS 283 | Principles of Management | 3 |
- BAS 287 | Supervisory Management | 3 |
- BAS 288 | Personal and Organizational Leadership | 3 |
- MFG 256 | Production Management | 3 |
- OST 275 | Office Management | 3 |
- QMS 101 | Introduction to Quality Systems | 3 |
- BAS 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 218 | UNIX/Linux Net Infrastructure | 3 |
- CIT 219 | Internet Protocols | 3 |
- CIT 260 | Network Hardware Installation and Troubleshooting | 3 |
- CIT 261 | MS Active Directory Services | 3 |
- CIT 262 | MS Server Infrastructure | 3 |
- CIT 263 | Advanced Topics in Microsoft Windows: (Topics) | 3 |
- CIT 264 | Microsoft Server Management | 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 |

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*Approved Business Courses, Management Courses, and Elective Courses depend on the Program Coordinator's approval.

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121
### Approved CIT Technical Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIT 209</td>
<td>Scaling Networks</td>
<td>3</td>
</tr>
<tr>
<td>CIT 161</td>
<td>Introduction to Networks</td>
<td>3</td>
</tr>
<tr>
<td>CIT 262</td>
<td>MS Server Infrastructure</td>
<td>3</td>
</tr>
<tr>
<td>CIT 217</td>
<td>UNIX/Linux Administration</td>
<td>3</td>
</tr>
<tr>
<td>CIT 249</td>
<td>Java II</td>
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### Approved Level II Web Programming Language Courses

<table>
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<tr>
<td>CIT 241</td>
<td>PHP II</td>
<td>3</td>
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<tr>
<td>CIT 244</td>
<td>Python II</td>
<td>3</td>
</tr>
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<td>CIT 248</td>
<td>Visual Basic II</td>
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### Approved Social Media Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CIT 151</td>
<td>Social Media</td>
<td>3</td>
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<tr>
<td>CIT 152</td>
<td>Social Media Tools and Technologies</td>
<td>3</td>
</tr>
<tr>
<td>CIT 251</td>
<td>Social Media II</td>
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### Approved Video Game Design Electives

<table>
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<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>CIT 238</td>
<td>Android Programming</td>
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### Approved CIT Technical Courses

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CIT 238</td>
<td>Android Programming</td>
<td>3</td>
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</tbody>
</table>

**Notes:**
- Or other courses approved by Computer & Information Technologies Program Coordinator
- Students may choose CIT 290 or COE 199 for a maximum of 3 credit hours.

### Certificates

- **A+ Prep - 1101013529**
  (Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
  - CIT 111 Computer Hardware and Software ................. 4
  - Total 4

- **AWS Cloud Architecting – 1101013569**
  (Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
  - CIT 167 Routing and Switching Essentials ............... 4
  - CIT 201 Information Storage Management .................. 3
  - CIT 206 Amazon Web Services Practitioner ................. 3
  - CIT 207 Amazon Web Services Architecting .................. 3
  - CIT 217 UNIX/Linux Administration .......................... 3
  - CIT 262 MS Server Infrastructure ........................... 3
  - Total 19

- **CISCO Networking Associate - 1101013359**
  (Offered at ASC, BLC, BSC, ELC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
  - CIT 161 Introduction to Networks .......................... 4
  - CIT 167 Routing and Switching Essentials ................. 4
  - CIT 209 Scaling Networks .................................... 4
  - CIT 212 Connecting Networks .................................. 4
  - Total 16

- **CISCO Networking Enhanced - 1101013379**
  (Offered at ASC, BLC, BSC, ELC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
  - CIT 161 Introduction to Networks .......................... 4
  - CIT 167 Routing and Switching Essentials ................. 4
  - CIT 209 Scaling Networks .................................... 4
  - CIT 212 Connecting Networks .................................. 4
  - Total 24

- **CIT Fundamentals - 1101013309**
  (Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
  - CIT 105 Introduction to Computing ........................ 3
  - CIT 111 Computer Hardware and Software .................... 4
  - CIT 120 Computational Thinking .............................. 3
  - CIT 170 Database Design Fundamentals ...................... 3
  - CIT 180 Security Fundamentals .............................. 3
  - Total 23

- **Computer Support Technician - 1101013329**
  (Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
  - CIT 130 Productivity Software .............................. 3
  - CIT 111 Computer Hardware and Software .................... 4
  - CIT 232 Help Desk Operations ............................... 3
  - CIT 234 Advanced Productivity Software .................... 3
  - CIT 236 Advanced Data Organization Software .............. 3
  - Total 16

- **Computer Tech Basic - 1101013319**
  (Offered at ASC, BLC, BSC, ELC, GTW, HE, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
  - CIT 105 Introduction to Computers ......................... 3
  - CIT 111 Computer Hardware and Software .................... 4
  - Total 11

- **Computer Technician - 1101013289**
  (Offered at ASC, BLC, BSC, ELC, GTW, HE, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
  - CIT 105 Introduction to Computers ......................... 3
  - CIT 111 Computer Hardware and Software .................... 4
  - CIT 180 Security Fundamentals .............................. 3
  - Total 14

- **Digital Forensics – 1101013459**
  (Offered at ASC, BLC, BSC, HEC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
  - CIT 105 Introduction to Computers ......................... 3
  - CIT 111 Computer Hardware and Software .................... 4
  - CIT 160 Intro to Networking Concepts OR ................... 4
  - CIT 161 Introduction to Networks ............................ (4)
  - CRJ 204 Criminal Investigations ............................ 3
  - CIT 180 Security Fundamentals .............................. 3
  - CIT 284 Computer Forensics ................................. 3
  - Total 20

- **Informatics Advanced – 1101013509**
  (Offered at ASC, BLC, ELC, HPC, JFC, MDC, MYC, OWC, SEC, SKY, WKC)
  - CIT 149 Java I OR ........................................... 3
  - INF 120 Elementary Programming ............................ (3)
  - IFM 211 Collaboration Software ............................. (3)
  - IFM 225 Advanced Informatics ............................... 3
  - Total 9

- **Informatics Generalist – 1101013499**
  (Offered at ASC, BLC, WKC)
  - CIT 105 Introduction to Computers ......................... 3
  - CIT 120 Computational Thinking .............................. 3
  - CIT 130 Productivity Software .............................. 3
  - CIT 170 Database Design Fundamentals OR ................... 3
  - INF 282 Introduction to Databases .......................... (3)
  - IFM 215 Information Systems Analysis ...................... 3
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**Informatics Programming Language Pairs**

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<td>Perimeter Defense</td>
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**Information Security Specialist - 1101013339**

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

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**Microsoft Enterprise Administrator - 1101013419**

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

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**Microsoft Network Administrator - 1101013349**

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

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**Mobile Apps Development – 1101013559**

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

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<td>Java I</td>
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**Net+ Prep - 1101013539**

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

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**Network Technologies Specialist - 1101013369**

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

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**Informatics Programming Language Pair**

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**Microsoft Platform**

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**UNIX/Linux Platform**

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<td>UNIX/Linux Administration</td>
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<td>CIT 218</td>
<td>UNIX/Linux Net Infrastructure</td>
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**Cisco Platform**

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<td>Scaling Networks</td>
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**Data Center Platform**

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<td>Information Storage Management</td>
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<td>CIT 203</td>
<td>Introduction to Virtualization</td>
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<td>CIT 204</td>
<td>VAware Optimizer and Scale</td>
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**Productivity Software Specialist - 1101013299**

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

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**Programming – 1101013429**

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

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**Security+ Prep - 1101013549**

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

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### Social Media Specialist – 1101013469  
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<td>CIT 155</td>
<td>Web Page Development</td>
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<td>CIT 151</td>
<td>Social Media I</td>
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<td>CIT 152</td>
<td>Social Media Tools and Technologies</td>
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<td>Social Media II</td>
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<td>BAS 160</td>
<td>Introduction to Business</td>
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### Video Game Design - 1101013519  
*(Offered at BLC, WKC)*

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<td>CIT / IMD 124</td>
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<td>CIT / IMD 221</td>
<td>Computer Graphics</td>
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<td>CIT / IMD 223</td>
<td>Computer Animation</td>
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<td>CIT / IMD 273</td>
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### Web Administration - 1101013449  
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<td>CIT 157</td>
<td>Web Site Design and Production</td>
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### Web Programming - 1101013439  
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<tr>
<td><strong>Total</strong></td>
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</table>

### Computerized Manufacturing and Machining

Work activities in machine shop involve applying knowledge of machine capabilities, the properties of materials, and shop practices to set-up and operate various machines. The skills needed to position work pieces, adjust machines, and verify the accuracy of machine functions and finish products are taught by classroom instruction, demonstration, and hands on experience.

Students enrolled in the Computerized Manufacturing & Machining program must achieve a minimum grade of “C” in each technical course.

### Associate in Applied Science

#### Computerized Manufacturing & Machining - 4805037019  
*(Offered at BLC, BSC, ELC, GTW, MDC, MYC, OWC, SKY, WKC)*

**General Education:**

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<thead>
<tr>
<th>Course Code</th>
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<td>MAT 126</td>
<td>Technical Algebra and Trigonometry or Higher</td>
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<td>MAT 118</td>
<td>Metrology/Control Charts</td>
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<tr>
<td>CMM 120</td>
<td>Applied Machining I AND</td>
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</tr>
<tr>
<td>CMM 122</td>
<td>Applied Machining II OR</td>
<td>3</td>
</tr>
<tr>
<td>CMM 124</td>
<td>Applied Machining</td>
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<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>
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<tr>
<td>CMM 138</td>
<td>Intro to Programming &amp; CNC Machines</td>
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<td>CMM 210</td>
<td>Industrial Machining I AND</td>
<td>3</td>
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<tr>
<td>CMM 212</td>
<td>Industrial Machining II OR</td>
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<td>CMM 220</td>
<td>Advanced Industrial Machining I AND</td>
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<td>CMM 222</td>
<td>Advanced Industrial Machining II OR</td>
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<td>CMM 224</td>
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<td>CMM 230</td>
<td>Intro to Conversational Programming AND</td>
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<td>CMM 2302</td>
<td>Conversational Editing and Subroutines OR</td>
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<td>CMM 2306</td>
<td>Conversational Programming OR</td>
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<td>CMM 234</td>
<td>CNC Machines and Coding Practices</td>
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<td>CMM 2400</td>
<td>Intro to 3-D Code Sequencing and Tool Path Production AND</td>
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<td>CMM 2402</td>
<td>Advanced 3-D Code Sequencing and Macro Systems OR</td>
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<td>CMM 2404</td>
<td>Intro to 3-D Programming OR</td>
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<td>CMM 244</td>
<td>Advanced Programming/Setup Practices</td>
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<td>BRX 110</td>
<td>Basic Blueprint Reading for Machinist AND</td>
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<tr>
<td>BRX 210</td>
<td>Mechanical Blueprint Reading for Machinist OR</td>
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</tr>
<tr>
<td>BRX 112</td>
<td>Blueprint Reading for Machinist OR</td>
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</table>

**Total Credits**: 64-67

*Digital literacy must be demonstrated either by competency exam or by completing a computer/digital literacy course.*
Diploma
CNC Machinist - 4805034069
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, JFC, MYC, OWC, SEC, SKY, SMC, WKC)

General Education:
Area 1:
Written Communication, Oral Communications, or Heritage/Humanities .......................................................... 3

Area 2:
Social/Behavioral Science, Natural Science or Quantitative Reasoning ................................................................. 3
Subtotal: 6

Electives (Co-op or Practicum) .................................................. 1
Subtotal: 1

Technical:
Digital Literacy* ........................................................................... 0-3
CMM 110 Fundamentals of Machine Tools A AND .................. 3
CMM 112 Fundamentals of Machine Tools B OR ....................... 3
CMM 114 Fundamentals of Machine Tools .................................. 6
CMM 118 Metrology/Control Charts ............................................. 2
CMM 120 Applied Machining I AND ............................................. 3
CMM 122 Applied Machining II OR .............................................. 3
CMM 124 Applied Machining ......................................................... 6
CMM 130 Manual Programming AND ......................................... 3
CMM 132 CAD/CAM/CNC OR ..................................................... 3
CMM 134 Manual Programming/CAD/CAM/CNC OR ............... 6
CMM 138 Intro to Programming & CNC Machines ................. 6
CMM 210 Industrial Machining I AND ......................................... 3
CMM 212 Industrial Machining II OR .......................................... 3
CMM 214 Industrial Machining ..................................................... 6
CMM 220 Advanced Industrial Machining I AND .................. 4
CMM 222 Advanced Industrial Machining II OR .................... 2
CMM 224 Advanced Industrial Machining ................................... 6
CMM 2301 Intro to Conversational Programming AND .......... 3
CMM 2302 Conversational Editing and Subroutines OR .......... 3
CMM 2303 Conversational Programming OR .......................... 6
CMM 234 CNC Machines and Coding Practices ....................... 6
CMM 2401 Intro to 3-D Code Sequencing and Tool path Production AND ...................................................... 3
CMM 2402 Advanced 3-D Code Sequencing and Macro Systems OR ........................................................................ 3
CMM 2403 Intro to 3-D Programming OR ................................... 6
CMM 244 Advanced Programming/SetUp Practices ................... 6
BRX 110 Basic Blueprint Reading for Machinist ....................... 2
BRX 210 Mechanical Blueprint Reading for Machinist .................. 2
BRX 112 Blueprint Reading for Machinist ..................................... 4
Subtotal: 48-51
Total Credits: 55-58

CMM 114 Fundamentals of Machine Tools B............................ 3
CMM 118 Metrology/Control Charts ......................................... 2
CMM 120 Applied Machining I AND .......................................... 3
CMM 122 Applied Machining II OR .......................................... 3
CMM 124 Applied Machining ....................................................... 6
CMM 130 Manual Programming AND ........................................ 3
CMM 132 CAD/CAM/CNC OR .................................................. 3
CMM 134 Manual Programming/CAD/CAM/CNC OR ............. 6
CMM 138 Intro to Programming & CNC Machines ............... 6
CMM 234 CNC Machines and Coding Practices ....................... 6
BRX 110 Basic Blueprint Reading for Machinist ....................... 2
BRX 112 Blueprint Reading for Machinist ..................................... 4
Subtotal: 36-39
Total Credits: 43-46

Diploma
CNC Machinist & Waterjet Technology - 4805033189
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, JFC, MDC, SEC, SMC, WKC)

General Education:
Area 1:
Written Communication, Oral Communications, or Heritage/Humanities .......................................................... 3

Area 2:
Social/Behavioral Science, Natural Science or Quantitative Reasoning ................................................................. 3
Subtotal: 6

Electives (Co-op or Practicum) .................................................. 1
Subtotal: 1

Technical:
Digital Literacy* ........................................................................... 0-3
CMM 110 Fundamentals of Machine Tools A AND .................. 3
CMM 112 Fundamentals of Machine Tools B OR ....................... 3
CMM 114 Fundamentals of Machine Tools .................................. 6
CMM 118 Metrology/Control Charts ............................................. 2
CMM 120 Applied Machining I AND ............................................. 3
CMM 122 Applied Machining II OR .............................................. 3
CMM 124 Applied Machining ......................................................... 6
CMM 130 Manual Programming AND ......................................... 3
CMM 132 CAD/CAM/CNC OR ..................................................... 3
CMM 134 Manual Programming/CAD/CAM/CNC OR ............... 6
CMM 138 Intro to Programming & CNC Machines ................. 6
CMM 234 CNC Operator - 4805033129
(Offered at ASC, BLC, HPC, JFC, MDC, SEC, SMC, WKC)

(Continued on next page)
Machine Tool Operator I - 4805033109

Technical Requirements:
- Written Communication ........................................... 3
- Business Mathematics OR
- Higher level Quantitative Reasoning course ................. 3
- Social/Behavioral Sciences ...................................... 3
- Heritage/Humanities .............................................. 3
- Natural Sciences .................................................. 3
- Oral Communications ............................................ 3
Subtotal: 18

Technical Electives:
- Digital Literacy or demonstrated competency ............... 0-3
- Blueprint Reading For Construction ......................... 3
- Intro to Construction Lab ........................................ 3
- Surveying & Foundations ....................................... 3
- Surveying & Foundations Lab .................................. 2
- Small Frame Construction I .................................. 3
- Small Frame Const. II-Lab .................................... 2
- Light Frame Construction II ................................... 3
- Light Frame Const. III-Lab .................................... 2
- Practicum in Construction OR .................................. 2
- Co-op in Construction ........................................... (2-4)
- Industrial Safety .................................................... 3
- Technical Electives ............................................. 10
Subtotal: 42-47
Total: 60-65

Note: Digital Literacy must be demonstrated either by competency exam or by completing an approved digital literacy course.

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Machine Tool Operator II - 4805033119

Technical Requirements:
- Written Communication ........................................... 3
- Business Mathematics OR
- Higher level Quantitative Reasoning course ................. 3
- Social/Behavioral Sciences ...................................... 3
- Heritage/Humanities .............................................. 3
- Natural Sciences .................................................. 3
- Oral Communications ............................................ 3
Subtotal: 18

Technical Electives:
- Digital Literacy or demonstrated competency ............... 0-3
- Blueprint Reading For Construction ......................... 3
- Intro to Construction Lab ........................................ 3
- Surveying & Foundations ....................................... 3
- Surveying & Foundations Lab .................................. 2
- Small Frame Construction I .................................. 3
- Small Frame Const. II-Lab .................................... 2
- Light Frame Construction II ................................... 3
- Light Frame Const. III-Lab .................................... 2
- Practicum in Construction OR .................................. 2
- Co-op in Construction ........................................... (2-4)
- Industrial Safety .................................................... 3
- Technical Electives ............................................. 10
Subtotal: 42-47
Total: 60-65

Note: Digital Literacy must be demonstrated either by competency exam or by completing an approved digital literacy course.
Area 2: Social/Behavioral Sciences, Natural Or Humanities/Heritage

Area 1: Written Communication, Oral Communications, General Education Requirements: (6-9 credit hours)

CAR 240 Light Frame Construction IV ........................................... 3
CAR 241 Light Frame Const. IV-Lab ............................................ 2

Diploma

Construction Carpenter - 4602014019

(Offered at BLG, BSC, ELG, HZC, JFC, MYC, SEC, SMQ)

General Education Requirements:

Area 1: Written Communication, Oral Communications, or Humanities/Heritage ........................................... 3
Area 2: Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning ............................................. 3
Subtotal 6

Technical Electives* (This list is not all inclusive. Other courses [technical or general education] may be taken as approved by Construction Technology instructor.)

BRX 120 Basic Blueprint Reading ................................................. 3
CAR 150 Construction Formwork ................................................. 3
CAR 151 Construction Formwork - Lab ....................................... 2
CAR 198 Special Topics in Construction ................................. 1 - 6
CAR 240 Light Frame Construction IV ........................................... 3
CAR 241 Light Frame Const. IV-Lab ............................................ 2

Technical Requirements:

Digital Literacy course OR demonstrated competency .......... 0-3
BRX 120 Blueprint Reading for Construction ......................... 3
CAR 126 Intro to Construction ................................................. 3
CAR 127 Intro to Construction-Lab .......................................... 1
CAR 140 Surveying & Foundations ......................................... 3
CAR 141 Surveying & Foundations-Lab .................................. 2
CAR 190 Light Frame Construction I ......................................... 3
CAR 191 Light Frame Const. I-Lab .......................................... 2
CAR 196 Light Frame Construction II ....................................... 3
CAR 197 Light Frame Const. II-Lab ............................................ 2
CAR 200 Light Frame Construction III ..................................... 3
CAR 201 Light Frame Const. III-Lab ....................................... 2
CAR 298 Practicum in Construction OR .................................... 2
CAR 299 Co-op in Construction ............................................... (2-4)
ISX 100 Industrial Safety ......................................................... 3
Technical Electives* ............................................................... 10
Subtotal 42-47
Total 48-53

Finish Carpenter - 4602014029

(Offered at JFC)

General Education Requirements: (6-9 credit hours)

Area 1: Written Communication, Oral Communications, Or Humanities/Heritage ........................................... 3
Area 2: Social/Behavioral Sciences, Natural Sciences or Quantitative Reasoning ............................................. 3
Subtotal 6

Note: WPP 200 or EFM 100 may be taken for 3 credit hours of Social/Behavioral Sciences to meet the Diploma General Education requirements.

Certificates

Acoustical Carpenter - 4602013119

(Offered at BLG, BSC, ELG, HZC, JFC, SEC)

INF 205 Introduction to Acoustical Carpentry ......................... 3
INF 211 Advanced Acoustical Carpentry .................................. 2
Electives: *Technical Electives ............................................. 6
Total Credits 11

Basic Carpenter - 4602013139

(Offered at BLC, BSC, ELG, HZC, JFC, MYC, OWI, SEC, SMQ)

CAR 126 Intro to Construction ................................................. 3
CAR 127 Intro to Construction-Lab .......................................... 1
Electives: (Any five [5] additional credits, program or otherwise) ............... 5
Total Credits 9

Carpenter Helper - 4602013109

(Offered at BLG, BSC, ELG, HZC, JFC, MYC, OWI, SEC, SMQ)

BRX 220 Blueprint Reading for Construction ......................... 3
CAR 126 Intro to Construction ................................................. 3
CAR 127 Intro to Construction-Lab .......................................... 1
CAR 140 Surveying & Foundations ......................................... 3
CAR 141 Surveying & Foundations-Lab .................................. 2
CAR 190 Light Frame Construction I – Floors and Walls ............... 3
CAR 191 Light Frame Construction I – Floors and Walls (Lab) ........... 2
Total Credits 17

Construction Forms Helper - 4602013029

(Offered at BLG, BSC, ELG, HZC, JFC, MYC, SEC, SMQ)

BRX 220 Blueprint Reading for Construction ......................... 3
CAR 126 Intro to Construction ................................................. 3
CAR 127 Intro to Construction-Lab .......................................... 1
CAR 150 Construction Formwork ......................................... 3
CAR 151 Construction Formwork - Lab .................................... 2
Electives: *Suggested Technical Electives ................................ 6
Total Credits 18

Note: Digital Literacy must be demonstrated either by competency exam or by completing an approved digital literacy course.
**Suggested Technical Electives:**
(All courses [technical or general education] may be taken as approved by Construction Technology Program Coordinator.)
- BRX 120 Basic Blueprint Reading ........................................... (3)
- ISX 100 Industrial Safety .................................................... (3)
- CAR 140 Construction Surveying and Foundation Systems ...... (3)
- CAR 141 Construction Surveying and Foundation Systems-Lab ... (2)
- CAR 150 Construction Formwork ........................................... (3)
- CAR 151 Construction Formwork-Lab ..................................... (2)
- CAR 190 Light Frame Construction I- Floors and Walls .......... (3)
- CAR 191 Light Frame Construction I- Floors and Walls-Lab ...... (2)
- CAR 196 Light Frame Construction II- Ceilings and Roof .......... (3)
- CAR 197 Light Frame Construction II- Ceilings and Roof-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 Carpenter Techniques ........................ (3)
- CAR 241 Light Frame Construction IV-Lab ................................ (2)
- DLC 100 Digital Literacy ..................................................... (3)
- Note: TEC 200, PHX 150, EFM 100 and WPP 200 may be used to fill diploma general education requirements only.

**Suggested General Education Electives:**
- TEC 200 Technical Communications ...................................... (3)
- COM 181 Basic Public Speaking ........................................... (3)
- COM 252 Intro to Interpersonal Communications ................ (3)
- MAT 105 Business Mathematics ........................................ (3)
- MAT 110 Applied Mathematics ........................................... (3)
- MAT 116 Technical Mathematics ........................................ (3)
- PHX 150 Introductory Physics ............................................ (3)
- EFM 100 Personal Financial Management ........................... (3)
- WPP 200 Workplace Principles ......................................... (3)
- INF 105 Introduction to Drywall ......................................... 2
- INF 111 Advanced Drywall ............................................... 2
- Electives: *Technical Electives ......................................... 4
- Total Credits 8

**Dry Waller - 4602013039**
(Offered at BSC, ELC, HZC, JFC, SEC)

**Green Building Technology - 4602013415**
(Offered at HZC, JFC, SEC)

- INF 105 Introduction to Drywall ......................................... 2
- INF 111 Advanced Drywall ............................................... 2
- Electives: *Technical Electives ......................................... 4
- Total Credits 8

**Suggested Technical Electives:**
Select a minimum of 10 credit hours. (This list is not all inclusive. Other courses may be taken as approved by Construction Technology Instructor.)
- CAR 140 Surveying & Foundations ....................................... 3
- CAR 141 Surveying & Foundations-Lab ................................ 2
- CAR 190 Light Frame Construction I- Floors and Walls .......... (3)
- CAR 191 Light Frame Construction I- Floors and Walls-Lab ...... (2)
- CAR 196 Light Frame Construction II- Ceilings and Roof .......... (3)
- CAR 197 Light Frame Construction II- Ceilings and Roof-Lab ... (2)
- CAR 200 Light Frame Construction III-Exterior and Interior Finish (3)
- CAR 201 Light Frame Construction III-Exterior and Interior Finish-Lab ...... (2)
- BRX 220 Blueprint Reading for Construction .................... 3
- CAR 126 Intro to Construction .......................................... 3
- CAR 127 Intro to Construction-Lab ..................................... 1
- 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 Roof .......... (3)
- CAR 197 Light Frame Construction II- Ceilings and Roof-Lab ... (2)
- CAR 200 Light Frame Construction III-Exterior and Interior Finish (3)
- CAR 201 Light Frame Construction III-Exterior and Interior Finish-Lab ...... (2)
- BRX 220 Blueprint Reading for Construction .................... 3
- CAR 126 Intro to Construction .......................................... 3
- CAR 127 Intro to Construction-Lab ..................................... 1
- 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 Roof .......... (3)
- CAR 197 Light Frame Construction II- Ceilings and Roof-Lab ... (2)
- Total Credits 20

**Residential Roofing - 4602013296**
(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMU)

**Residential Carpenter - 4602013059**
(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMU)

**Residential Roofer - 4602013296**
(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMU)
Residential Site Layout Assistant - 4602013079
(Offered at BLC, BSC, ELC, HPC, HZC, JFC, MYC, SEC, SMC)

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<th>Title</th>
<th>Credits</th>
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<tr>
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<td>Intro to Construction</td>
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<td>CAR 127</td>
<td>Intro to Construction Lab</td>
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</tr>
<tr>
<td>CAR 140</td>
<td>Surveying &amp; Foundations</td>
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<tr>
<td>CAR 141</td>
<td>Surveying &amp; Foundations - Lab</td>
<td>2</td>
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<td>Electives</td>
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*Suggested Technical Electives:

(This list is not all inclusive. Other courses (technical or general education) may be taken as approved by Construction Technology Program Coordinator.)

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<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<td>BRX 120</td>
<td>Basic Blueprint Reading</td>
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<tr>
<td>BRX 220</td>
<td>Blueprint Reading for Construction</td>
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</tr>
<tr>
<td>ISX 100</td>
<td>Industrial Safety</td>
<td>(3)</td>
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<tr>
<td>CAR 150</td>
<td>Construction Formwork</td>
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<td>CAR 151</td>
<td>Construction Formwork - Lab</td>
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<td>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</td>
<td>(2)</td>
</tr>
<tr>
<td>CAR 196</td>
<td>Light Frame Construction II - Ceilings and Walls</td>
<td>(3)</td>
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<td>CAR 197</td>
<td>Light Frame Construction II - Ceilings and Walls - Lab</td>
<td>(2)</td>
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<tr>
<td>CAR 198</td>
<td>Special Topics in Construction</td>
<td>(1-6)</td>
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<tr>
<td>CAR 200</td>
<td>Light Frame Construction III - Exterior and Interior Finish</td>
<td>(3)</td>
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<tr>
<td>CAR 201</td>
<td>Light Frame Construction III - Exterior and Interior Finish - Lab</td>
<td>(2)</td>
</tr>
<tr>
<td>CAR 240</td>
<td>Light Frame Construction IV - Cabintery and Trim</td>
<td>(3)</td>
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<tr>
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<td>Light Frame Construction IV - Cabintery and Trim - Lab</td>
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<td>DLC 100</td>
<td>Digital Literacy</td>
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*Suggested General Education Electives:

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<th>Title</th>
<th>Credits</th>
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<tr>
<td>TEC 200</td>
<td>Technical Communications</td>
<td>(3)</td>
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<tr>
<td>COM 181</td>
<td>Basic Public Speaking</td>
<td>(3)</td>
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<tr>
<td>MAT 105</td>
<td>Business Mathematics</td>
<td>(3)</td>
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<td>MAT 110</td>
<td>Applied Mathematics</td>
<td>(3)</td>
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<tr>
<td>MAT 116</td>
<td>Technical Mathematics</td>
<td>(3)</td>
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<tr>
<td>PHX 150</td>
<td>Introductory Physics</td>
<td>(3)</td>
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<td>EFM 100</td>
<td>Personal Financial Management</td>
<td>(3)</td>
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<tr>
<td>WPP 200</td>
<td>Workplace Principles</td>
<td>(3)</td>
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</tbody>
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Note: TEC 200, PHX 150, EFM 100 and WPP 200 may be used to fill diploma general education requirements only.

Cosmetology

Knowledge of the theories of hair, skin, and nail care is coupled with practice of the various techniques used in salons.

Any person enrolling in a cosmetology program shall meet KCTCS admission requirements and complete an application for enrollment provided by the Kentucky Board of Cosmetology. As required by the Kentucky Board of Cosmetology, the applicant shall furnish proof that he or she has earned a high school diploma or its equivalent.

Documentation of digital literacy as defined by KCTCS is required prior to graduation for the diploma credential.

Progression in the Cosmetology program is contingent upon achievement of a grade of “C” or better in each technical course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

After successful completion of the prescribed 1500 hours of instruction, program graduates are eligible to take the examination administered by the National- Interstate Council of State Boards of Cosmetology (NIC) to become licensed cosmetologists.

After successful completion of the prescribed 750 hours of instruction, program graduates are eligible to take the examination administered by the National- Interstate Council of State Boards of Cosmetology (NIC) to become licensed cosmetology instructors.

After successful completion of the prescribed 450 hours of instruction, program graduates are eligible to take the examination administered by the National- Interstate Council of State Boards of Cosmetology (NIC) to become licensed nail technicians.

After successful completion of the prescribed 750 hours of instruction, program graduates are eligible to take the examination administered by the National- Interstate Council of State Boards of Cosmetology (NIC) to become licensed estheticians.

Diploma

Cosmetologist - 1204014019
(Offered at ASC, BLC, BSC, HZC, JFC, SMC, WKC)

General Education:

<table>
<thead>
<tr>
<th>Area</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>1</td>
<td>Written Communication, Oral Communications, or Humanities/Heritage</td>
<td>(3)</td>
</tr>
<tr>
<td>2</td>
<td>Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning</td>
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<tr>
<td><strong>Subtotal</strong></td>
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Technical Courses:

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<tr>
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<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>COS 108</td>
<td>Cosmetology I Theory AND</td>
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</tr>
<tr>
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<td>Cosmetology I Practical Application OR</td>
<td>(6)</td>
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<tr>
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</tr>
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<td>COS 116</td>
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<td>(14)</td>
</tr>
<tr>
<td>COS 228</td>
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</tr>
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<td>COS 229</td>
<td>Cosmetology III Practical Application OR</td>
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**Total Credits**

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<tr>
<td><strong>Cosmetologist</strong></td>
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<td><strong>57</strong></td>
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</table>
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.

**Certificates**

*Apprentice Cosmetology Instructor - 1204013049*

(Offered at ASC, BSC, HZC, JFC, SMC, WKC)

<table>
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*Cosmetologist - 1204013039*

(Offered at ASC, BLC, BSC, HZC, JFC, SMC, WKC)

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<td>COS 109</td>
<td>Cosmetology I Practical Application OR</td>
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<td>COS 114</td>
<td>Cosmetology I</td>
<td>(14)</td>
</tr>
<tr>
<td>COS 118</td>
<td>Cosmetology II Theory AND</td>
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<td>COS 116</td>
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<tr>
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<td>Cosmetology III Theory AND</td>
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<tr>
<td>COS 229</td>
<td>Cosmetology III Practical Application OR</td>
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<tr>
<td>COS 218</td>
<td>Cosmetology III</td>
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<td>Cosmetology IV Theory AND</td>
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*Esthetician - 1204093039*

(Offered at)

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*Nail Technician - 1204013059*

(Offered at ASC, BSC, HZC, JFC, SMC)

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<td><strong>Total Credits</strong></td>
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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.

**Associate in Applied Science**

*Criminal Justice - 4301037039*

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

Available Completely Online

**General Education:**

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<td>ENG 102</td>
<td>Writing II</td>
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<td>COM 181</td>
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<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
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<tr>
<td>PSY 110</td>
<td>General Psychology</td>
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<tr>
<td>POL 101</td>
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(Digital Literacy OR General Education Elective)

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<td>CRJ 202</td>
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<td>CRJ 204</td>
<td>Criminal Investigations</td>
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<td>CRJ 216</td>
<td>Criminal Law</td>
<td>3</td>
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<td>CRJ 217</td>
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**Technical Core Requirements:**

<table>
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<td>CRJ 207</td>
<td>Community Corrections/Probation &amp; Parole</td>
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<tr>
<td>CRJ 208</td>
<td>Delinquency and the Juvenile Justice System</td>
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</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 231</td>
<td>Legal Aspects of Corrections</td>
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<tr>
<td>CRJ 277</td>
<td>Introduction to Criminology</td>
<td>3</td>
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<td>CRJ 290</td>
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**Track Electives: (Choose 6 credit hours from the following courses):**

<table>
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<tr>
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<td>Delinquency and the Juvenile Justice System</td>
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<td>CRJ 220</td>
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<td>CRJ 222</td>
<td>Prison and Jail Administration</td>
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<td>Introduction to Criminology</td>
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**Technical Elective**

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<td>CRJ 222</td>
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<td>CRJ 277</td>
<td>Introduction to Criminology</td>
<td>3</td>
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<td>Internship in Criminal Justice</td>
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**Total Credits**

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<tr>
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130
### Criminal Justice Track - 430103701

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

**Track Electives: (Choose 9 credit hours from the following courses)**

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<td>CRJ 108</td>
<td>Advanced Firearms and Less Than Lethal Weapons</td>
<td>4</td>
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<td>CRJ 110</td>
<td>Principles of Asset Protection</td>
<td>3</td>
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<tr>
<td>CRJ 201</td>
<td>Introduction to Criminalistics</td>
<td>3</td>
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<tr>
<td>CRJ 203</td>
<td>Community Corrections/Probation &amp; Parole</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 and Systems</td>
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<tr>
<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 218</td>
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<td>Police Recruit Defensive Tactics</td>
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<td>CRJ 222</td>
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<td>CRJ 225</td>
<td>Driving and Traffic Enforcement for Law Enforcement</td>
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<td>CRJ 230</td>
<td>Criminal Justice Courtroom Procedures</td>
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<td>CRJ 231</td>
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<td>Introduction to Corporate and Industrial Security</td>
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<td>Introduction to Business and Financial Fraud</td>
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<td>CRJ 277</td>
<td>Introduction to Criminology</td>
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<td>CRJ 279</td>
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<td>CRJ 299</td>
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**Subtotal:** 9  

Technical Elective………………………………………………………….0-3  

**Subtotal:** 0-3  

**Total Credits** 61-64

### Security and Loss Prevention Track - 430103704

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

**Required course:**

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<th>Credits</th>
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<tbody>
<tr>
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**Subtotal** 3

**Track Electives: (Choose 6 credit hours from the following courses)**

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<td>CRJ 211</td>
<td>Liability and Legal Issues</td>
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<td>CRJ 220</td>
<td>Introduction to Computer Forensics</td>
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<td>CRJ 240</td>
<td>Introduction to Corporate and Industrial Security</td>
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<td>Introduction to Business and Financial Fraud</td>
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<td>Internship in Criminal Justice</td>
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<tr>
<td>CRJ 299</td>
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**Subtotal:** 9  

Technical Elective………………………………………………………….0-3  

**Subtotal:** 0-3  

**Total Credits** 61-64

### Law Enforcement Track - 430103702

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

**Required Course:**

<table>
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<tr>
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**Track Electives: (Choose 6 credit hours from the following courses)**

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<tr>
<td>CRJ 108</td>
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</tr>
<tr>
<td>CRJ 201</td>
<td>Introduction to Criminalistics</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 208</td>
<td>Delinquency and the Juvenile Justice System</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 218</td>
<td>Police Supervision</td>
<td>3</td>
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<tr>
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<td>Police Recruit Defensive Tactics</td>
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<td>CRJ 220</td>
<td>Introduction to Computer Forensics</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 224</td>
<td>Basic Traffic Collision Investigation</td>
<td>4</td>
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<td>CRJ 225</td>
<td>Driving and Traffic Enforcement for Law Enforcement</td>
<td>4</td>
</tr>
<tr>
<td>CRJ 230</td>
<td>Criminal Justice Courtroom Procedures</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 277</td>
<td>Introduction to Criminology</td>
<td>3</td>
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<td>CRJ 279</td>
<td>Terrorism and Political Violence</td>
<td>3</td>
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<td>CRJ 299</td>
<td>Selected Topics in Criminal Justice</td>
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**Subtotal:** 9  

Technical Elective………………………………………………………….0-3  

**Subtotal:** 0-3  

**Total Credits** 61-64

### Certificates

**Advanced Law Enforcement – 4301033069**

*(Offered BSC, BLC, MDC, MYC, SEC)*

- CRJ 107 Introduction to Firearms 1
- CRJ 108 Advanced Firearms and Less Than Lethal Weapons 4
- CRJ 204 Criminal Investigations 3
- CRJ 215 Criminal Justice Courtroom Procedures 3
- CRJ 219 Police Recruit Defensive Tactics 4
- CRJ 224 Basic Traffic Collision Investigation 4
- CRJ 225 Driving and Traffic Enforcement for Law Enforcement 4

**Total:** 23

**Computer Forensics - 4301033019**

*(Offered ASC, BLC, ELC, GTW, HPC, JFC, MDC, MYC, OWC, SEC)*

- CRJ 100 Introduction to Criminal Justice OR 3
- CRJ 204 Criminal Investigations 3
- CRJ 220 Introduction to Computer Forensics for Criminal Justice 3
- CRJ 230 Criminal Justice Courtroom Procedures 3
- CTT 105 Introduction to Computers 3
- CTT 111 Computer Hardware and Software 4
- CTT 160 Introduction to Networking Concepts OR 4
- CTT 180 Security Fundamentals 4

**Total:** 23

**Corrections - 4301033039**

*(Offered ASC, BLC, ELC, GTW, HPC, JFC, MYC, SEC)*

- CRJ 102 Introduction to Corrections 3
- CRJ 203 Community Corrections: Probation and Parole 3
- CRJ 208 Delinquency and the Juvenile Justice System 3
- CRJ 222 Prison and Jail Administration 3
- CRJ 231 Legal Aspects of Corrections 3

**Total:** 15

**NOTE:** CRJ 107 Introduction to Firearms I may be used as a technical elective only. Course will not substitute for track elective.
Culinary Arts Technical Core

CUL 100 Introduction to Culinary Arts OR ........................................... 2
CUL 105 Applied Introduction to Culinary Arts .................................... (2)
CUL 250 Garde Manger ................................................................. 4
CUL 125 Sanitation and Safety .......................................................... 2
CUL 211 Basic Food Production ......................................................... 4
CUL 215 Basic Baking ....................................................................... 4
CUL 230 Basic Nutrition OR .............................................................. 3
NFS 101 Human Nutrition and Wellness ............................................. (3)
CUL 240 Meats, Seafood, and Poultry ............................................... 4
CUL 270 Human Relations Management .......................................... 3
CUL 280 Cost and Control ................................................................ 3
CUL 285 Front of the House OR ....................................................... (4)
CUL 290 Front of the House/Catering ............................................... (4)
Digital Literacy* .............................................................................. 0-3
Required Technical Core Hours ......................................................... 32-36
* Digital Literacy must be demonstrated either by competency exam or by completing a computer/digital literacy course.

Catering and Personal Chef Degree Track - 120503701

(Offered at ASC, ELC, JFC, MYC, SKY, SMC, WKC)

General Education ........................................................................... 18
CUL 220 Advanced Baking and Pastry Arts ...................................... 4
BAS 170 Entrepreneurship AND ....................................................... 3
CUL 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

Culinary Arts Degree Track - 120503702

(Offered at ASC, ELC, JFC, MYC, SKY, SMC, WKC)

General Education ........................................................................... 18
CUL 220 Advanced Baking and Pastry Arts ...................................... 4
CUL 260 International and Classical Cuisine OR ................................. 4
CUL 235 Farm to Table OR ............................................................... (4)
CUL 225 Professional Confection and Pastry Arts .............................. (4)
CUL 298 Culinary Arts Practicum Experience OR ............................ 2-3
CUL 299 Culinary Arts Cooperative Education Experience ............... (2-3)
Total Hours .................................................................................... 60-65

Food and Beverage Management Degree Track - 120503703

(Offered at ASC, ELC, JFC, MYC, SKY, SMC, WKC)

General Education ........................................................................... 18
BAS 160 Introduction to Business ..................................................... 3
BAS 170 Entrepreneurship OR .......................................................... 3
BAS 283 Principles of Management .................................................. (3)
BAS 282 Principles of Marketing ....................................................... 3
CUL 298 Culinary Arts Practicum Experience OR ............................ 2-3
CUL 299 Culinary Arts Cooperative Education Experience ............... (2-3)
Total Hours .................................................................................... 61-66

Diplomas

Catering and Personal Chef - 1205034019

(Offered at ASC, BSC, BLC, ELC, GTC, HPC, JFC, MDC, MYC, SMC, WKC)

General Education*

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

* If a diploma is sought, two of the three following courses may be used for the six (6) hours general education. These courses will not count toward the AAS degree.
### General Education

**Area 1 = Written/Oral Communications, Humanities, or Heritage**
- Technical Core: 32-36

**Area 2 = Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning**
- Technical Core: 32-36

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CUL 220 Advanced Baking and Pastry Arts</td>
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</tr>
<tr>
<td>CUL 260 International and Classical Cuisine</td>
<td>4</td>
</tr>
<tr>
<td>CUL 298 Culinary Arts Practicum Experience</td>
<td>2-3</td>
</tr>
<tr>
<td>CUL 299 Culinary Arts Cooperative Education Experience</td>
<td>2-3</td>
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**Total Hours for Culinary Arts Diploma**

48-53

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**Technical or Support Courses**

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<tr>
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<tr>
<td>CUL 260 International and Classical Cuisine</td>
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<tr>
<td>CUL 298 Culinary Arts Practicum Experience</td>
<td>2-3</td>
</tr>
<tr>
<td>CUL 299 Culinary Arts Cooperative Education Experience</td>
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**Technical/Support Total**

43-48

**Total Hours**

49-54

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**Food and Beverage Management - 1205034039**

(Offered at ASC, BSC, ELC, JFC, MYC, SKY, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>CUL 105 Applied Introduction to Culinary Arts</td>
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<td>CUL 125 Sanitation and Safety</td>
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<tr>
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<tr>
<td>CUL 230 Basic Nutrition OR</td>
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<tr>
<td>CUL 240 Meats, Seafood, and Poultry</td>
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**Advanced Food and Beverage Management - 1205033089**

(Offered at ASC, BSC, ELC, JFC, MYC, SKY, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
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</tr>
<tr>
<td>CUL 125 Sanitation and Safety</td>
<td>2</td>
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<tr>
<td>CUL 215 Basic Baking</td>
<td>4</td>
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<tr>
<td>CUL 230 Basic Nutrition OR</td>
<td>3</td>
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**Advanced Catering - 1205033079**

(Offered at ASC, BSC, ELC, JFC, MYC, SKY, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CUL 211 Basic Food Production</td>
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<tr>
<td>CUL 220 Advanced Baking and Pastry Arts</td>
<td>4</td>
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<tr>
<td>CUL 240 Meats, Seafood, and Poultry</td>
<td>4</td>
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<tr>
<td>CUL 260 International and Classical Cuisine</td>
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<td>CUL 270 Human Relations Management</td>
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<tr>
<td>CUL 280 Cost and Control</td>
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**Advanced Culinary Arts - 1205033069**

(Offered at ASC, BSC, ELC, JFC, MYC, SKY, SMC, WKC)

<table>
<thead>
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</thead>
<tbody>
<tr>
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<td>2</td>
</tr>
<tr>
<td>CUL 125 Sanitation and Safety</td>
<td>2</td>
</tr>
<tr>
<td>CUL 215 Basic Baking</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>43-44</strong></td>
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**Baking - 1205033109**

(Offered at ASC, JFC, MYC, SKY, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
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<td>2</td>
</tr>
<tr>
<td>CUL 125 Sanitation and Safety</td>
<td>2</td>
</tr>
<tr>
<td>CUL 215 Basic Baking</td>
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**Catering - 1205033059**

(Offered at ASC, BSC, ELC, JFC, MYC, SKY, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CUL 100 Introduction to Culinary Arts OR</td>
<td>2</td>
</tr>
<tr>
<td>CUL 125 Sanitation and Safety</td>
<td>2</td>
</tr>
<tr>
<td>CUL 215 Basic Baking</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
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### Certificates

**Advanced Food and Beverage Management - 1205033089**

(Offered at ASC, BSC, ELC, JFC, MYC, SKY, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>CUL 100 Introduction to Culinary Arts OR</td>
<td>2</td>
</tr>
<tr>
<td>CUL 125 Sanitation and Safety</td>
<td>2</td>
</tr>
<tr>
<td>CUL 215 Basic Baking</td>
<td>4</td>
</tr>
<tr>
<td>CUL 230 Basic Nutrition OR</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
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**Advanced Catering - 1205033079**

(Offered at ASC, BSC, ELC, JFC, MYC, SKY, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUL 211 Basic Food Production</td>
<td>4</td>
</tr>
<tr>
<td>CUL 220 Advanced Baking and Pastry Arts</td>
<td>4</td>
</tr>
<tr>
<td>CUL 240 Meats, Seafood, and Poultry</td>
<td>4</td>
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<tr>
<td>CUL 260 International and Classical Cuisine</td>
<td>4</td>
</tr>
<tr>
<td>CUL 270 Human Relations Management</td>
<td>3</td>
</tr>
<tr>
<td>CUL 280 Cost and Control</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>43-44</strong></td>
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**Advanced Culinary Arts - 1205033069**

(Offered at ASC, BSC, ELC, JFC, MYC, SKY, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CUL 100 Introduction to Culinary Arts OR</td>
<td>2</td>
</tr>
<tr>
<td>CUL 125 Sanitation and Safety</td>
<td>2</td>
</tr>
<tr>
<td>CUL 215 Basic Baking</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>43-44</strong></td>
</tr>
</tbody>
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**Baking - 1205033109**

(Offered at ASC, JFC, MYC, SKY, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CUL 100 Introduction to Culinary Arts OR</td>
<td>2</td>
</tr>
<tr>
<td>CUL 125 Sanitation and Safety</td>
<td>2</td>
</tr>
<tr>
<td>CUL 215 Basic Baking</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>12</strong></td>
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**Catering - 1205033059**

(Offered at ASC, BSC, ELC, JFC, MYC, SKY, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUL 100 Introduction to Culinary Arts OR</td>
<td>2</td>
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<tr>
<td>CUL 125 Sanitation and Safety</td>
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<tr>
<td>CUL 215 Basic Baking</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>12</strong></td>
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</table>
Culinary Arts - 1205033049
(Offered at ASC, ELC, MYC, SKY, SMC, WKC)
Culinary Arts Technical Core ........................................ 32-36
Total Hours 32-36

Culinary Arts Professional Development - 1205033099
(Offered at JFC, SKY, SMC, WKC)
CUL Students may choose 12 credit hours from any Culinary Arts courses* ........................................ 12
Total Hours 12

*Prerequisites apply

Farm to Table - 1205033119
(Offered at ELC, JFC, SMC, WKC)
CUL 100 Introduction to Culinary Arts OR ........................................ 2
CUL 105 Applied Introduction to Culinary Arts .......... (2)
CUL 125 Sanitation and Safety ........................................ 2
CUL 211 Basic Food Production ........................................ 4
CUL 215 Basic Baking ........................................ 4
CUL 230 Basic Nutrition OR ........................................ 4
NFS 101 Human Nutrition and Wellness .................. (3)
CUL 235 Farm to Table ........................................ 4
CUL 298 Culinary Arts Practicum Experience OR ........ 2-3
CUL 299 Culinary Arts Cooperative Education Experience .... (2-3)
Food and Beverage Management - 1205033039
(Offered at ASC, BSC, ELC, JFC, MYC, SKY, SMC, WKC)
CUL 100 Introduction to Culinary Arts OR ........................................ 2
CUL 105 Applied Introduction to Culinary Arts .......... (2)
CUL 125 Sanitation and Safety ........................................ 2
CUL 211 Basic Food Production ........................................ 4
CUL 215 Basic Baking ........................................ 4
CUL 240 Meats, Seafood, and Poultry .................. 4
CUL 270 Human Relations Management ................. 3
CUL 280 Cost and Control ........................................ 3
BAS 160 Introduction to Business ........................................ 3
BAS 282 Principles of Marketing ........................................ 3
BAS 283 Principles of Management ........................................ 3
Digital Literacy* ........................................ 0-3
Total Hours 31-34

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

Fundamentals of Culinary Arts - 1205033029
(Offered at ASC, BSC, ELC, JFC, MYC, SKY, SMC, WKC)
CUL 100 Introduction to Culinary Arts OR ........................................ 2
CUL 105 Applied Introduction to Culinary Arts .......... (2)
CUL 250 Garde Manger ........................................ 3
CUL 125 Sanitation and Safety ........................................ 2
CUL 211 Basic Food Production ........................................ 4
CUL 215 Basic Baking ........................................ 4
Total Hours 16

Professional Baking and Pastry Arts - 1205033129
(Offered at 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
CUL 225 Professional Confection and Pastry Arts ........ (4)
Total Hours 16

Dental Hygiene

The Dental Hygiene program prepares graduates to use their skill and knowledge as dental hygienists to fulfill the role of a licensed oral health professional who is responsible for preventing and treating oral diseases in a variety of settings. The curriculum includes courses in general education and in dental hygiene as required by the Commission on Dental Accreditation (CODA) and Kentucky state dental practice act. The Dental Hygiene program is organized around a clearly-defined, comprehensive educational experience that combines general education and dental hygiene courses through didactic, laboratory, and clinical courses in order that students may apply scientific evidence-based knowledge in the performance of dental hygiene procedures. Students are also required to attend rotations through outside agencies for enrichment and must provide their own transportation.

Graduates are eligible to take state, regional and national board exams such as National Board Dental Hygiene Examination (NBDE) and American Board of Dental Examiners (ADEX) clinical boards. Acceptance into the Dental Hygiene program is based on a selective admissions process. In order to be considered for admission, applicants must comply with college and program admission requirements prior to the online posted deadline. Students enrolled in the Dental Hygiene program must achieve a minimum grade of “C” or better in each Dental Hygiene and approved biological science course. Documentation of digital literacy as defined by KCTCS and Cardiopulmonary resuscitation (CPR) are required prior to admission to DHP courses.

Note: The Kentucky Board of Dentistry may deny a license to practice dental hygiene to graduates who have been convicted of a misdemeanor or felony which involves acts that bear directly on the qualifications of the graduate to practice dental hygiene.

Associate in Applied Science

Dental Hygiene - 5106027019
(Offered at BLC)

General Education Core
ENG 101 Writing I ........................................ 3
COM 181 Basic Public Speaking ........................................ 3
PSY 110 General Psychology ........................................ 3
SOC 101 Introduction to Sociology ........................................ 3
BIO 137 Human Anatomy & Physiology I* .............. 4
BIO 139 Human Anatomy & Physiology II* .............. 4
BIO 225 Medical Microbiology OR ........................................ (4)
BIO 226 Principles of Microbiology ........................................ 3
Quantitative Reasoning Course at AA/AS Level .............. 3
Heritage/Humanities Course ........................................ 3
Subtotal Credits 29

Technical Courses
DHP 120 Dental Hygiene I* ........................................ 4
DHP 122 Dental Nutrition ........................................ 2
DHP 123 Oral Biology ........................................ 2
DHP 124 Materials in Dentistry ........................................ 2
DHP 130 Dental Hygiene II* ........................................ 3
DHP 132 Oral Pathology and Pharmacology .............. 4
DHP 135 Dental Radiology ........................................ 3
DHP 136 Periodontics I ........................................ 2
DHP 220 Dental Hygiene III ........................................ 3
DHP 222 Special Needs Patients ........................................ 3
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.

Dental Hygiene Only Classes:

<table>
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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
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<td>Pre-Clinical Dental Hygiene</td>
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<td>DHG 130</td>
<td>Clinical Dental Hygiene I</td>
<td>3</td>
</tr>
<tr>
<td>DHG 132</td>
<td>Pharmacology</td>
<td>2</td>
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<tr>
<td>DHG 134</td>
<td>Dental Nutrition</td>
<td>2</td>
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<tr>
<td>DHG 136</td>
<td>Periodontology</td>
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<td>DHG 220</td>
<td>Clinical Dental Hygiene II</td>
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<td>DHG 226</td>
<td>Advanced Periodontology</td>
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<td>DHG 230</td>
<td>Clinical Dental Hygiene III</td>
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<td>DHG 238</td>
<td>Community Dental Health Issues</td>
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Total Credit Hours 68

Diploma

Dental Assisting - 5106024019

(Offered in West Consortium – Credential granted by Ashland CTC, Big Sandy CTC, West KY CTC)

General Education Classes:

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy &amp; Physiology with Laboratory OR</td>
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<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I AND</td>
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<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
<td>(4)</td>
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<td>PSY 110</td>
<td>General Psychology</td>
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*Required at Bluegrass CTC, recommended at West Kentucky CTC

Subtotal 7-14

Integrated Classes

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<td>Infection Control and Medical Emergencies</td>
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<td>DAH 121</td>
<td>Dental Sciences</td>
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<td>DAH 124</td>
<td>Materials in Dentistry</td>
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<td>DAH 131</td>
<td>Oral Pathology</td>
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<td>DAH 135</td>
<td>Oral Radiology</td>
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<td>DAH 235</td>
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Associate in Applied Science

Dental Hygiene - 5106027040

(Offered in East Consortium – Credential granted by Big Sandy CTC but also taught at Somerset CC)

General Education Classes:

<table>
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<th>Course Title</th>
<th>Credits</th>
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<td>Writing I</td>
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<td>ENG 102</td>
<td>Writing II</td>
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<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I</td>
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<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
<td>4</td>
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<tr>
<td>BIO 225</td>
<td>Medical Microbiology</td>
<td>4</td>
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<tr>
<td>PSY 110</td>
<td>General Psychology</td>
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<td>SOC 101</td>
<td>Introductory Sociology</td>
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<tr>
<td>MAT 110</td>
<td>Applied Mathematics OR</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra and Functions</td>
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Elective

<table>
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<tbody>
<tr>
<td>DHG 221</td>
<td>Local Anesthesia and Nitrous Oxide Sedation</td>
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Subtotal 33

Integrated Classes

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<td>DAH 121</td>
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</table>

Total Program Credits 68

Required Before Enrolling in DHP 120

* 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 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.
Diagnostic Medical Sonography

Diagnostic Medical Sonography is a highly-skilled profession which uses specialized equipment to create images of structures inside the human body used by physicians to make medical diagnoses. Graduates of the program are qualified to provide patient services using diagnostic techniques under the supervision of a licensed physician.

This program contains four tracks, the general/vascular track, the general track, the vascular track and the cardiac track. The general/vascular track prepares the graduate to be a general sonographer who is qualified to perform vascular ultrasound. Sonographers have extensive, direct patient contact that may include performing some invasive procedures. The general track prepares the graduate to perform sonograms on the abdominal, small parts and OB/GYN applications. The vascular track prepares the graduate to perform sonograms on the cerebrovascular, peripheral arterial, peripheral venous and abdominal vascular applications. The cardiac track prepares the graduate to perform cardiovascular sonograms.

Sectional anatomy, ultrasonic instrumentation and imaging are the major components in this program. Skills are developed through clinical experiences using diagnostic imagery equipment.

An advanced option (certificate) in vascular sonography is offered for candidates who are currently employed and registry eligible in Diagnostic Medical Sonography.

The student is exposed to and expected to acquire skills, attitudes, and habits that are generally common to all professionals in the medical field. Graduates will be prepared for a professional career in the opted sonography field.

CPR requirement must be successfully completed prior to enrolling in the first sonography course and must be kept current throughout the program. Documentation of successful completion of a minimum 75 hour nursing assistant course or its equivalent and digital literacy competency as defined by KCTCS are required prior to enrolling in the first sonography course.

Progression in the Diagnostic Medical Sonography program is contingent upon achievement of a grade of “C” or better in each Sonography course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Transportation to the community agencies is the responsibility of each student.

Note: Hours Exception (67-76 for the A.A.S) approved by the KCTCS Board of Regents in June 2010.
DMS 109 Sonography I ................................................. 7
DMS 115 Sonography II .............................................. 6
DMS 119 Ultrasonic Physics and Instrumentation .......... 6
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:

DMS 136 Clinical Education I ................................... (3-4)
DMS 230 Clinical Education II ................................ (5-8)
DMS 240 Clinical Education III ................................ (5-8)

Subtotal 48

Total 68-74

Vascular Sonography Track – 510910707

(Offered at BLC, ELC)

DMS 117 Vascular Sonography I .................................. 7
DMS 118 Vascular Sonography II ................................ 6
DMS 119 Ultrasonic Physics and Instrumentation .......... 6
DMS 136 Vascular Clinical Education I ....................... 4
DMS 204 Online Vascular Review ................................ 2
DMS 206 Online Vascular Sonography III ................... 3
DMS 236 Vascular Clinical Education II ....................... 8
DMS 237 Vascular Clinical Education III ....................... 5

Subtotal 41

Total 61-66

Certificates

Basic Cardiac Ultrasound Technology - 5109103059

DMS 217 Basic Cardiac Ultrasound Technology ............... 3

Total 3

Basic Vascular Sonography Track – 5109103069

DMS 280 Basic Vascular Technology .......................... 3

Total 3

Cardiac Sonography – 5109103079

DMS 119 Ultrasonic Physics and Instrumentation .......... 6
DMS 146 Cardiac Techniques I .................................. 12
DMS 147 Cardiac Clinical Education I ......................... 1
DMS 207 Cardiac Techniques II ................................ 7
DMS 216 Cardiac Techniques III ................................ 3
DMS 246 Cardiac Review .......................................... 1
DMS 247 Cardiac Clinical Education II ......................... 2
DMS 248 Cardiac Clinical Education III ....................... 6
DMS 249 Cardiac Clinical Education IV ....................... 8

Total 46

General Sonography -5109103089

DMS 111 Abdominal Sonography .................................. 7
DMS 116 OB/GYN Sonography .................................. 6
DMS 119 Ultrasonic Physics and Instrumentation .......... 6
DMS 199 Online Physics Review ................................ 1
DMS 201 Online Abdomen Review ............................. 1
DMS 202 Online OB/GYN Review .............................. 1

A total of 17 credit hours must be completed from the
following clinical courses:

DMS 126 Clinical Education I ................................... (3-4)
DMS 230 Clinical Education II ................................ (5-8)
DMS 240 Clinical Education III ................................ (5-8)

Total 39

Vascular Sonography– 5109103099

DMS 117 Vascular Sonography I .................................. 7
DMS 118 Vascular Sonography II ................................ 6
DMS 119 Ultrasonic Physics and Instrumentation .......... 6
DMS 136 Vascular Clinical Education I ....................... 4
DMS 204 Online Vascular Review ................................ 2
DMS 206 Online Vascular Sonography III ................... 3
DMS 236 Vascular Clinical Education II ....................... 8
DMS 237 Vascular Clinical Education III ....................... 5

Total 41

Diesel Technology

Emphasizes the skills needed to analyze malfunctions and repair, rebuild
and maintain construction equipment, agriculture equipment, or
medium and heavy trucks in this program of study. Provides instruction
and experience in systems such as diesel engines, fuel injection, onboard
computers, transmissions, steering and suspension, and brakes.

A student must receive a grade of “C” or better to receive credit for
successful completion of courses in the diesel technology curriculum.

Associate in Applied Science

Diesel Technology - 4706057039

(Offered at BLC, ELC, GTW, HPC, OWC, SKY, SEC)

General Education:

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

Subtotal 15

Technical Core:

Computer/Digital Literacy .......................................... 3
BEX 100 Basic Electricity for Non-Majors AND .............. 3
BEX 101 Basic Electricity Lab for Non-Majors OR .......... 2
ADX 120 Basic Automotive Electricity AND ................. (3)
ADX 121 Basic Automotive Electricity Lab OR .............. (2)
ELT 110 Circuits I ................................................... (5)
ADX 170 Climate Control .......................................... 3
ADX 171 Climate Control Lab ..................................... 1
DIT 103 Preventive Maintenance Lab ............................ 2
DIT 110 Introduction to Diesel Engines AND ................ 3
DIT 111 Introduction to Diesel Engines Lab OR .......... 2
ADX 150 Engine Repair AND .................................... (3)
ADX 151 Engine Repair Lab ........................................ (2)
DIT 112 Diesel Engine Repair .................................... 3
DIT 113 Diesel Engine Repair Lab .............................. 2
DIT 140 Hydraulics AND ............................................ 3
DIT 141 Hydraulics Lab OR ......................................... 2
FPX 100 Fluid Power AND ........................................ (3)
FPX 101 Fluid Power Lab ........................................... (2)
DIT 150 Power Trains ............................................... 3
DIT 151 Power Trains Lab ............................................ 2
DIT 190 Electrical Systems for Diesel Equipment AND .... 3
DIT 191 Electrical Systems for Diesel Equipment Lab OR .. 2
ADX 260 Electrical Systems AND ................................ (3)
ADX 261 Electrical Systems Lab ................................. (2)

Subtotal 39

NOTE: Computer/Digital Literacy must be demonstrated either by competency exam or
by completing a computer/digital literacy course. If demonstrated by a competency exam,
an additional three credit hour class must be taken.
Agriculture Diesel Technician Track - 470605701
(Offered at ELC, HPC, OWC, SEC)

<table>
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Construction Equipment Technician Track - 470605702
(3)

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Medium and Heavy Truck Technician Track - 470605703
(Offered at BLC, ELC, GTW, OWC, SKY, SEC)

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Recommended Technical Electives (Program Coordinator Approval required)

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<td>DIT 199</td>
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<td>DIT 299</td>
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Diplomas
Agriculture Equipment Technician - 4706054039
(Offered at ASC, BSC, HPC, MYC, OWC, SEC, SMC, WKC)

General Education
Area 1 = Written Communication, Oral Communications, or Humanities/Heritage ........................................ 3
Area 2 = Social /Behavioral Science, Natural Sciences or Quantitative Reasoning ........................................ 3
**Subtotal** 6

Technical Courses
Computer/Digital Literacy course OR demonstrated competency ................................................ 0-3
ADX 170 Climate Control ........................................ 3
ADX 171 Climate Control Lab ................................... 1
BEX 100 Basic Electricity for Non-Majors AND ........... 3
BEX 101 Basic Electricity Lab for Non-Majors OR ....... 2
ADX 120 Basic Automotive Electricty AND ................. (3)
ADX 121 Basic Automotive Electricty Lab .................. (2)
ELT 110 Circuits I ............................................. (5)
DIT 103 Preventive Maintenance Lab ....................... 2
DIT 110 Introduction to Diesel Engines AND ............ 3
DIT 111 Introduction to Diesel Engines Lab OR ........... 2
ADX 150 Engine Repair AND .................................. (3)
ADX 151 Engine Repair Lab .................................... (2)
DIT 112 Diesel Engine Repair ................................ 3
DIT 113 Diesel Engine Repair Lab ........................... 2
DIT 121 Introduction to Maintenance-Welding Lab OR ... 3
IMT 100 Welding for Maintenance AND ..................... (3)
IMT 101 Welding for Maintenance Lab OR ................... (2)
WLD 120 Shielded Metal Arc Welding (SMAW) AND ...... (3)
WLD 121 Shielded Metal Arc Welding (SMAW) Lab ....... (2)
DIT 140 Hydraulics AND ....................................... 3
DIT 141 Hydraulics Lab OR .................................... 2
FPX 100 Fluid Power AND .................................... (3)
FPX 101 Fluid Power Lab ...................................... (2)
DIT 150 Power Trains .......................................... 3
DIT 151 Power Trains Lab ..................................... 2
DIT 152 Powertrain for Construction Equipment ........ 3
DIT 153 Powertrain for Construction Equipment Lab .... 2
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)
**Subtotal** 44-49
**Total** 50-55

Construction Equipment Technician - 4706054019
(Offered at ASC, BSC, HPC, MYC, OWC, SEC, WKC)

General Education
Area 1 = Written Communication, Oral Communications, or Humanities/Heritage ........................................ 3
Area 2 = Social /Behavioral Science, Natural Sciences or Quantitative Reasoning ........................................ 3
**Subtotal** 6
**Technical Courses**

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

ADX 170 Climate Control .......................... 3
ADX 171 Climate Control Lab ...................... 1
BEX 100 Basic Electricity for Non-Majors AND 3
BEX 101 Basic Electricity Lab for Non-Majors OR 2
ADX 120 Basic Automotive Electricity AND .......(3)
ADX 121 Basic Automotive Electricity Lab OR .....(2)
ELT 110 Circuits I ......................................(5)
DIT 103 Preventive Maintenance Lab .......... 2
DIT 110 Introduction to Diesel Engines AND .... 3
DIT 111 Introduction to Diesel Engines Lab OR ... 2
ADX 150 Engine Repair AND ..........................(3)
ADX 151 Engine Repair Lab ...........................(2)
DIT 112 Diesel Engine Repair ..................... 3
DIT 113 Diesel Engine Repair Lab ................. 2
DIT 150 Power Trains .................................. 3
DIT 151 Power Trains Lab ............................ 3
DIT 152 Powertrain for Construction Equipment .... 3
DIT 153 Powertrain for Construction Equipment Lab .... 2
DIT 121 Introduction to Maintenance Welding Lab OR .... 3
IMT 100 Welding for Maintenance AND ..........(3)
IMT 101 Welding for Maintenance Lab OR ........(2)
WLD 120 Shielded Metal Arc Welding (SMAW) AND ....(3)
WLD 121 Shielded Metal Arc Welding (SMAW) Lab ....(2)
DIT 123 Undercarriage Lab .......................... 3
DIT 141 Hydraulics Lab OR .......................... 2
FPX 100 Fluid Power AND ..........................(3)
FPX 101 Fluid Power 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 Lab ...........................(3)
ADX 261 Electrical Systems Lab OR ..................(2)

**Subtotal** 47-52

**Total** 53-58

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**Recommended Technical Electives (Program Coordinator Approval required)**

DIT 161 Steering and Suspension Lab ......................................... 2
DIT 180 Brakes ........................................ 3
DIT 181 Brakes Lab ........................................ 2
DIT 190 Electrical Systems for Diesel Equipment AND ............... 3
DIT 191 Electrical Systems for Diesel Equipment Lab OR ............ 2
ADX 260 Electrical Systems AND ...........................................(3)
ADX 261 Electrical Systems Lab ............................................(2)

**Subtotal** 46-49

**Total** 52-55

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**Medium and Heavy Truck Technician - 4706054049**

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

**General Education**

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

**Subtotal** 6

**Technical Courses**

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

ADX 170 Climate Control .......................... 3
ADX 171 Climate Control Lab ...................... 1
BEX 100 Basic Electricity for Non-Majors AND 3
BEX 101 Basic Electricity Lab for Non-Majors OR 2
ADX 120 Basic Automotive Electricity AND .......(3)
ADX 121 Basic Automotive Electricity Lab OR .....(2)
ELT 110 Circuits I ......................................(5)
DIT 103 Preventive Maintenance Lab .......... 2
DIT 110 Introduction to Diesel Engines AND .... 3
DIT 111 Introduction to Diesel Engines Lab OR ... 2
ADX 150 Engine Repair AND ..........................(3)
ADX 151 Engine Repair Lab ...........................(2)
DIT 112 Diesel Engine Repair ..................... 3
DIT 113 Diesel Engine Repair Lab ................. 2
DIT 140 Hydraulics AND ............................. 3
DIT 141 Hydraulics Lab OR .......................... 2
FPX 100 Fluid Power AND ..........................(3)
FPX 101 Fluid Power Lab ............................(2)
DIT 150 Power Trains .................................. 3
DIT 151 Power Trains Lab ............................ 3
DIT 160 Steering and Suspension .................. 2
DIT 161 Steering and Suspension Lab ......................................... 2
DIT 180 Brakes ........................................ 3
DIT 181 Brakes Lab ........................................ 2
DIT 190 Electrical Systems for Diesel Equipment AND ............... 3
DIT 191 Electrical Systems for Diesel Equipment Lab OR ............ 2
ADX 260 Electrical Systems AND ...........................................(3)
ADX 261 Electrical Systems Lab ............................................(2)

**Total** 46-49

**Recommended Technical Electives (Program Coordinator Approval required)**

DIT 180 Brakes ........................................ 3
DIT 181 Brakes Lab ........................................ 2
DIT 160 Steering and Suspension .................. 3
DIT 161 Steering and Suspension Lab .................. 2
DIT 121 Introduction to Maintenance Welding Lab OR .... 3
IMT 100 Welding for Maintenance AND ...............(3)
IMT 101 Welding for Maintenance Lab OR ............(2)
WLD 120 Shielded Metal Arc Welding (SMAW) AND ....(3)
WLD 121 Shielded Metal Arc Welding (SMAW) Lab ....(2)
DIT 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 193 Special Problems I .......................... 1
DIT 195 Special Problems II .................................. 2
DIT 197 Special Problems III .......................... 3
DIT 198 Practicum ....................................... 1
DIT 298 Practicum II ..................................... 2
DIT 199 Cooperative Education ..................... 1
DIT 299 Cooperative Education II .................... 1

(Or other courses as approved by the Program Coordinator that will prepare the student for entry into the workforce)

**Certificate**

**Agriculture Equipment Mechanic Helper - 4706053109**

(Offered at ASC, BSC, ELC, HZC, 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 OR ............ 2
ADX 260 Electrical Systems AND .......................... 3
ADX 261 Electrical Systems Lab OR .................. 2
DIT 190 Electrical Systems for Diesel Equipment AND .... 3
DIT 191 Electrical Systems for Diesel Equipment Lab OR ............ 2
DIT 112 Diesel Engine Repair .......................... 3
DIT 113 Diesel Engine Repair Lab ..................... 2
DIT 152 Powertrain for Construction Equipment .......... 3
DIT 153 Powertrain for Construction Equipment Lab ............... 2

**Total** 19

**Construction Equipment Mechanic Helper - 4706053019**

(Offered at ASC, BSC, ELC, HZC, 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 OR ............ 2
ADX 260 Electrical Systems AND .......................... 3
ADX 261 Electrical Systems Lab OR .................. 2
DIT 190 Electrical Systems for Diesel Equipment AND .... 3
DIT 191 Electrical Systems for Diesel Equipment Lab OR ............ 2
DIT 112 Diesel Engine Repair .......................... 3
DIT 113 Diesel Engine Repair Lab ..................... 2
DIT 152 Powertrain for Construction Equipment .......... 3
DIT 153 Powertrain for Construction Equipment Lab ............... 2
DIT 123 Undercarriage Lab ............................ 3

**Total** 23
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</tr>
<tr>
<td>DIT 111 Introduction to Diesel Engines Lab OR</td>
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<tr>
<td>ADX 150 Engine Repair AND</td>
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</tr>
<tr>
<td>ADX 151 Engine Repair Lab</td>
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<td>DIT 12 Diesel Engine Repair</td>
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<td>DIT 13 Diesel Engine Repair Lab</td>
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**Diesel Mechanics Assistant - 4706053189**

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

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<td>3</td>
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<tr>
<td>DIT 111 Introduction to Diesel Engines Lab</td>
<td>2</td>
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<td>DIT 12 Diesel Engine Repair</td>
<td>3</td>
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<tr>
<td>DIT 13 Diesel Engine Repair Lab</td>
<td>2</td>
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<tr>
<td>DIT 160 Steering and Suspension</td>
<td>3</td>
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**Diesel Engine Mechanic - 4706053079**

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

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<td>DIT 151 Power Trains</td>
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**Heavy Duty Drive Train Mechanic - 4706053089**

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

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<td>BEX 100 Basic Electricity for Non-Majors AND</td>
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<tr>
<td>BEX 101 Basic Electricity Lab for Non-Majors OR</td>
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<tr>
<td>ELT 110 Circuits I</td>
<td>(5)</td>
</tr>
<tr>
<td>ADX 150 Engine Repair AND</td>
<td>3</td>
</tr>
<tr>
<td>ADX 151 Engine Repair Lab OR</td>
<td>2</td>
</tr>
<tr>
<td>DIT 110 Introduction to Diesel Engines AND</td>
<td>(3)</td>
</tr>
<tr>
<td>DIT 111 Introduction to Diesel Engines Lab</td>
<td>(2)</td>
</tr>
<tr>
<td>ADX 260 Electrical Systems AND</td>
<td></td>
</tr>
<tr>
<td>ADX 261 Electrical Systems Lab OR</td>
<td>2</td>
</tr>
<tr>
<td>DIT 190 Electrical Systems for Diesel Equipment AND</td>
<td></td>
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<tr>
<td>DIT 191 Electrical Systems for Diesel Equipment Lab</td>
<td>(2)</td>
</tr>
<tr>
<td>DIT 112 Diesel Engine Repair</td>
<td>3</td>
</tr>
<tr>
<td>DIT 113 Diesel Engine Repair Lab</td>
<td>2</td>
</tr>
<tr>
<td>DIT 160 Steering and Suspension</td>
<td>3</td>
</tr>
<tr>
<td>DIT 161 Steering and Suspension Lab</td>
<td>2</td>
</tr>
<tr>
<td>DIT 180 Brakes</td>
<td>3</td>
</tr>
<tr>
<td>DIT 181 Brakes Lab</td>
<td>2</td>
</tr>
<tr>
<td>DIT 180 Brakes</td>
<td>3</td>
</tr>
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</table>

**Mobile Air Conditioning Mechanic - 4706053169**

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>ADX 170 Climate Control</td>
<td>3</td>
</tr>
<tr>
<td>ADX 171 Climate Control Lab</td>
<td>1</td>
</tr>
<tr>
<td>Electives (Diesel Courses/Industrial Education Core)</td>
<td>8</td>
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<td>Total</td>
<td>12</td>
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</tbody>
</table>

**Preventive Maintenance Mechanic - 4706053199**

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>DIT 103 Preventive Maintenance Lab</td>
<td>2</td>
</tr>
<tr>
<td>Electives (Diesel Courses/Industrial Education Core)</td>
<td>7</td>
</tr>
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<td>Total</td>
<td>13</td>
</tr>
</tbody>
</table>

**Undercarriage Mechanic - 4706053099**

(Offered at ASC, BSC, ELC, HZC, MYC, OWC, SEC, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIT 123 Undercarriage Lab</td>
<td>3</td>
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<tr>
<td>Electives (Diesel Courses/Industrial Education Core)</td>
<td>9</td>
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<td>Total</td>
<td>12</td>
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</tbody>
</table>

**Fluid Power Mechanic - 4706053119**

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FPX 100 Fluid Power OR</td>
<td>3</td>
</tr>
<tr>
<td>DIT 140 Hydraulics</td>
<td>(3)</td>
</tr>
<tr>
<td>FPX 101 Fluid Power Lab OR</td>
<td>2</td>
</tr>
<tr>
<td>DIT 141 Hydraulics Lab</td>
<td>(2)</td>
</tr>
<tr>
<td>Electives (Diesel Courses/Industrial Education Core)</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
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</tbody>
</table>

**Heavy Duty Brake Mechanic - 4706053039**

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIT 180 Brakes</td>
<td>3</td>
</tr>
<tr>
<td>DIT 181 Brakes Lab</td>
<td>2</td>
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<tr>
<td>Electives (Diesel Courses/Industrial Education Core)</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
</tr>
</tbody>
</table>
Digital Printing Technology

The 3D Printing Technician – Level I certificate prepares individuals to design for and apply 3D printing technology, also known as additive manufacturing, towards a host of basic applications. Areas of study will incorporate a foundational understanding of the technology, the equipment, thermoplastics and other materials, design applications, related software, business applications, scanning technology, and other related concepts. Upon completion of the certificate, students will be versed in the broad impact of the technology and prepared for an entry level career within an industry that applies 3D printing technology in some fashion.

Certificate

3D Printing Technician- Level I - 1506073059
(Offered at ASC, SMC)

DPT 100 Introduction to 3D Printing Technology OR ........................................ 3
DPT 102 3D Printing Technology Fundamentals AND .................................. (2)
CIT 105 Introduction to Computers ................................................................. (3)
BAS 160 Introduction to Business OR .......................................................... (3)
BAS 170 Entrepreneurship ................................................................. (3)
DPT 150 Introduction to Engineering Mechanics for 3D Printing …… 3
DPT 280 Special Projects for 3D Printing, Level I ........................................... 1
Elective: Any technical, entry level course within a field where 3D printing applications exist ........................................... 3
Elective: Any technical, entry level course within a field where 3D printing applications exist ........................................... 3
Total 16-18

Education

The Associate in Applied Science Degree (AAS) – Education; Educator Preparation is a pathway designed for students who wish to begin coursework at a community and technical college and then apply for transfer admission to a teacher education program at a four-year college or university.

Associate in Applied Science
Education - 1315017019

Educator Preparation Track - 131501703
(Offered at BLC, BSC, GTW, JFCC, SEC)

General Education

ENG 101 Writing I .................................................................................. 3
ENG 102 Writing II ............................................................................... 3
COM 181 Basic Public Speaking .......................................................... 3
COM 252 Introduction to Interpersonal Communications .................. (3)
HIS 105 History of the United States Through 1865 ....................... 3
HIS 106 History of the United States Since 1865 ....................... (3)
MAT 146 Contemporary College Mathematics .................................. 3
MAT 150 College Algebra ...................................................................(3)
MA 109 College Algebra ...................................................................(3)
MA 111 Contemporary Mathematics ............................................... (3)
PSY 110 General Psychology ............................................................. 3
Social/Behavioral Sciences ................................................................... 6
Subtotal 34-35

Technical Core or Support Core (Common)

Digital Literacy .................................................................................. 3
EDU 201 An Introduction to American Education .............................. 3
EDP 202 Human Development and Learning .................................... 3
EDP 203 Teaching Exceptional Learners in Regular Classrooms OR ... 3
EDP 260 Motivation and Classroom Management+ ......................... (3)
Total Common 12

Technical or Support Courses

Technical or Support Electives 15

Total Credit Hours 60-61

1 At least one course must be selected from the identified Cultural Studies course list.
2 Must include at least one Natural Science course with a laboratory experience.
3 Students must fulfill the Digital Literacy requirement by means specified in the KCTCS Catalog. A student who fulfills the Digital Literacy requirement by a means other than earning credit for an approved KCTCS digital literacy course must take three (3) credit hours of coursework approved by the program coordinator.
4 EDP 260 is intended for Jefferson Community & Technical College students transferring to the University of Louisville (excluding Special Education majors.)

Emergency Medical Services - Paramedic

Provides a comprehensive course of study that prepares the graduate for licensure as a Paramedic (EMTP). The curriculum is structured based on the National EMS Education Standards and regulations set forth by the Kentucky Board of Emergency Medical Services (KBEMS). The three-phase curriculum is designed to provide the student with the cognitive knowledge, psychomotor skills, and affective behaviors necessary to competently perform as a Paramedic. The EMS program prepares students to function in the emergency medical profession as a Paramedic in a variety of environments. Graduates primarily provide pre-hospital emergency care to acutely ill and/or injured individuals while working on an ambulance, mobile advanced life support unit, industrial on-site unit, fire department, emergency department, and other agencies. Graduates are eligible to apply to take the National Registry Paramedic Exam. Students may earn either a Certificate or Associate in Applied Science Degree at the Paramedic level. Credit may be awarded to currently practicing paramedics towards the Associate in Applied Science Degree. Enrollment in this program is limited; therefore, a selective admissions process is followed. Students are required to hold current unrestricted certification as an EMT in Kentucky or hold current unrestricted registration with the National Registry EMT as an EMT to be eligible for paramedic program admission.

Acceptance into the EMS Paramedic Program is based upon a selective admissions process. In order to be considered for admission, applicants must comply with college and program admission requirements. Applicants must present current, unrestricted state certification or proof of National Registry of EMT eligibility to become state certified. Licensed paramedics may receive credit towards the Associate of Applied Science in Emergency Medical Services – Paramedic. When eligible, the licensed paramedic will be awarded thirty-eight (38) semester credit hours upon the completion of: a) applying to the college of choice; b) submitting a letter of intent and a copy of the required licensure/certification document to the program coordinator with subsequent validation by the Registrar; and c) completing at least nine (9) credit hours from the degree-granting institution. Credit will be awarded as follows: 4 credit hours/EMS 200 Introduction to Paramedicine; 3 credit hours/EMS 210 Emergency Pharmacology; 3 credit hours/EMS 220 Cardiovascular Emergencies; 4 credit hours/EMS 230 Traumatic Emergencies; 3 credit hours/EMS 240 Medical Emergencies I; 3 credit hours/EMS 250 Medical Emergencies II; 3 credit hours/EMS 260 Special Populations; 1 credit hour/EMS 270 EMS Operations; 1 credit hour/EMS 275 Seminar in ALS; 5 credit hours/EMS 285 Field Internship & Summation; 2 credit hours/EMS 211 Fundamentals Lab;
1 credit hour/EMS 221 Cardiac & Trauma Lab; 1 credit hour/EMS 231 Medical Lab; 1 credit hour/EMS 215 Clinical Experience I; 1 credit hour/EMS 225 Clinical Experience II; 2 credit hours/EMS 235 Clinical Experience III. Students must meet the twenty-five percent (25%) residency requirements of the degree-granting institution.

Students select their career option preference, certificate or degree, either during advising or upon admission to the program, but may change their career path while in the program without reapplying for admission to the college.

Students can receive a certificate as an Electrocardiogram Technician by completing EMS 150. EMS 150 will prepare students to perform and interpret electrocardiograms in a hospital or clinical setting.

### Associate in Applied Science

**Emergency Medical Services - Paramedic - 5109047029**  
(Offered at BLC, GTW, HPC, HZC, JFC, MDC, OWC, SMCD)

#### General Education:
- **ENG 101** Writing I ........................................... 3
- **PSY 110** General Psychology ............................... 3
- **BIO 135** Basic Anatomy and Physiology with Laboratory*...... 4
  - **MAT 110 or Higher Quantitative Reasoning Course**...... 3
- **EM 200** Introduction to Paramedicine .......................... 4
- **EM 210** Emergency Pharmacology ............................... 4
- **EM 211** Fundamentals Lab ........................................ 4
- **EM 215** Clinical Experience I ................................... 1
- **EM 220** Cardiovascular Emergencies ............................. 4
- **EM 221** Cardiac and Trauma Lab ................................. 4
- **EM 225** Clinical Experience II .................................. 4
- **EM 230** Traumatic Emergencies .................................. 4

**Total Credits 60-64**

*BIO 137 & BIO 139 may be substituted for BIO 135

### Certificate

**Electrocardiogram Technician – 5109043060**  
(Offered at HZC, MDC)

- **EMS 150** Electrocardiogram Technology .......................... 5

**Total Credits 5**

### Emergency Medical Services - Paramedic - 5109043040

(Offered at BLC, GTW, HZC, HPC, JFC, MDC, OWC, SEC, SKY, SMCD)

- **BIO 135** Basic Anatomy and Physiology with Laboratory*...... 4
- **AHS 115** Medical Terminology ...................................... 3
- **EMS 200** Introduction to Paramedicine ............................. 4
- **EMS 210** Emergency Pharmacology ................................. 4
- **EMS 211** Fundamentals Lab ......................................... 4
- **EMS 215** Clinical Experience I .................................... 4
- **EMS 220** Cardiovascular Emergencies .............................. 4
- **EMS 221** Cardiac and Trauma Lab .................................. 4
- **EMS 225** Clinical Experience II ................................... 4
- **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

**Total Credits 45-49**

*BIO 137 & BIO 139 may be substituted for BIO 135

**MAT 110** required for completion of certificate at Somerset Community College, Madisonville Community College and Jefferson Community and Technical College.

### Energy Management

The Energy Management (EM) degree is designed to give students the skills and national certifications required to receive employment in the rapidly growing field of energy management and positions in the energy industry. The embedded certificates include: the Center for Energy Workforce Development (CEWD) Energy Industry Fundamental Certificate, the Building Performance Institute’s Building Specialist certificate, The North American Board of Certified Energy Practitioners’ Entry Level Solar certification, the Leadership in Energy and Environmental Design’s Green Associate certification, and the Environmental Protection Agency’s Article 608 certification. The program is designed to meet the needs of non-traditional and working students by having courses absent of pre-requisites. The program has several embedded certificates that will give many exit points to employment. Graduates of the EM program will be qualified to recommend improvements to commercial and residential buildings by analyzing subsystems that contribute to higher energy usage.

### Associate in Applied Science

**Energy Management -1505037039**  
(Offered at MDC)

#### General Education:
- **Quantitative Reasoning** ........................................... 3
- **Natural Sciences** ................................................... 3
- **Social/Behavioral Sciences** ....................................... 3
- **Heritage/Humanities** ............................................... 3
- **Written Communication** .......................................... 3

**Total Credits 15**

#### Technical Core
- **ENM 101** Energy Industry Fundamentals .......................... 9
- **ENM 111** Sustainability Management OR ................................ 3
  - **One Study Abroad/Overseas Experience course (HRS 200,3)**
  - **IES 235 or other Study Abroad course from a non-KCTCS accredited higher education institution (approved by the Energy Management program coordinator)**
- **ENM 121** Solar Design and Applications ............................ 3
- **ENM 200** Commercial Energy Analysis ............................. 9
- **ENM 210** Smart Grid Applications .................................. 3
- **AIT 220** The Integrated Power Grid ................................. 3
- **ENM 230** Building Automation ................................. 3
- **EGY 240** Energy Analysis and Efficiency ........................... 4
- **ENM 250** Regulatory and Environmental Issues ...................... 3
- **ENM 260** Air Conditioning and Refrigeration Regulations .......... 3
- **BRX 120** Basic Blueprint Reading .................................. 3
- **BAS 160** Introduction to Business .................................. 3
- **BAS 283** Principles of Management OR .............................. 3
- **BAS 284** Applied Management Skills ............................... (3)

**Total Credits 46**

142
Diploma

Energy Management - 1505034019
(Offered at MDC)

General Education

Natural Sciences ............................................................... 3
Written/Oral Communications ............................................. 3
Subtotal ................................................................. 6

Technical Core
ENM 101 Energy Industry Fundamentals .................................. 9
ENM 111 Sustainability Management OR One Study Abroad/Overseas Experience course (HRS 200, IES 235 Or other Study Abroad course from a non-KCTCS accredited higher education institution approved by the Energy Management program coordinator) .................................................. (3)
ENM 121 Solar Design and Applications ..................................... 3
ENM 200 Commercial Energy Analysis .................................... 3
ENM 210 Smart Grid Applications .......................................... 3
AFT 220 The Integrated Power Grid ....................................... 3
ENM 230 Building Automation ............................................. 3
EGY 240 Energy Analysis and Efficiency ................................ 4
ENM 250 Regulatory and Environmental Issues .......................... 3
ENM 260 Air Conditioning and Refrigeration Regulations ............ 3
BRX 120 Basic Blueprint Reading ........................................ 3
BAS 160 Introduction to Business ......................................... 3
BAS 283 Principles of Management OR .................................. 3
BAS 284 Applied Management Skills .................................... (3)
Subtotal ................................................................. 46

Total Credits ............................................................... 52

Certificates

Commercial Energy Analysis – 1505033099
(Offered at MDC)
ENM 111 Sustainability Management OR One Study Abroad/Overseas Experience course (HRS 200, IES 235 Or other Study Abroad course from a non-KCTCS accredited higher education institution approved by the Energy Management program coordinator) .................................................. (3)
ENM 200 Commercial Energy Analysis .................................... 3
ENM 230 Building Automation ............................................. 3
ENM 250 Regulatory and Environmental Issues .......................... 3
ENM 260 Air Conditioning and Refrigeration Regulations ............ 3
Total Credits ............................................................... 15

Fundamentals of Energy Production – 1505033089
(Offered at MDC)
ENM 101 Energy Industry Fundamentals .................................. 9
Total Credits ............................................................... 9

Sustainable Energy - 1505033109
(Offered at MDC)
ENM 111 Sustainability Management OR One Study Abroad/Overseas Experience course (HRS 200, IES 235 Or other Study Abroad course from a non-KCTCS accredited higher education institution approved by the Energy Management Program coordinator) .................................................. (3)
ENM 121 Solar Design and Applications ..................................... 3
AFT 220 The Integrated Power Grid ....................................... 3
ENM 210 Smart Grid Applications .......................................... 3
Total Credits ............................................................... 12

Energy Technologies

Offers an option for students to build a career in the energy field. The degree incorporates multiple tracks for certificates associated with different energy careers, allowing students to match their strengths and interests with an appropriate plan of study. It is focused on preparing graduates to enter the workforce in positions such as 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 I ............................................................... 3
MAT 110 Applied Mathematics OR ......................................... 3
Any Higher Level Quantitative Reasoning Courses ..................... (3)
PHV 171 Applied Physics OR .................................................. 4
Natural Sciences ................................................................. 3
Heritage / Humanities .......................................................... 3
Oral Communications .......................................................... 3
Social/Behavioral Sciences .................................................... 3
Subtotal ................................................................. 18-19

Core
BAS 160 Introduction to Business ......................................... 3
EET 150 Transformers .......................................................... 2
EET 151 Transformers Lab ...................................................... 1
ELT 110 Circuits I ............................................................... 5
ETT 110 Voice and Data Installer Level I ................................... 4
ISX 101 Introduction to Industrial Safety ................................. 3
EGY 170 Energy Utility Technologies ...................................... 4
EGY 120 Outside Plant Communications .................................. 4
Computer/Digital Literacy (NOTE: Computer/Digital literacy must be demonstrated either by competency exam or by successfully completing a computer/digital literacy course.) .................................................. 0-3
Subtotal ................................................................. 26-29

Technical Electives
Any course listed below OR in the certificates listed below (not including courses in the technical core) OR as approved by the program coordinator .................................................. 16
COE 199 Cooperative Education (up to 8 credit hours) ............... 16
DFT 122 Introduction to Computer Aided Drafting .................. 16
Total Credits ............................................................... 60-64
<table>
<thead>
<tr>
<th>Certificate</th>
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</thead>
<tbody>
<tr>
<td><strong>Energy Efficiency and Analysis</strong> – 1505033079</td>
</tr>
<tr>
<td><em>(Offered at BSC, BLC, GTW)</em></td>
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<tr>
<td>ACR 170  Heat Load / Duct Design ........................................ 3</td>
</tr>
<tr>
<td>EGY 240  Energy Efficiency and Analysis ..................................... 4</td>
</tr>
<tr>
<td>Computer/Digital Literacy (NOTE: Computer/Digital literacy must be demonstrated either by competency exam or by successfully completing a computer/digital literacy course.) ........................................ 0-3</td>
</tr>
<tr>
<td><strong>Total</strong> 7-10</td>
</tr>
</tbody>
</table>

| Energy Efficiency Electrical Controls Technician – 1505033049  |
| *(Offered at GTW)* |
| EET 154  Electrical Construction I ........................................... 2 |
| EET 155  Electrical Construction I Lab .......................................... 2 |
| EET 250  National Electric Code .................................................. 4 |
| EET 252  Electrical Construction II ............................................... 2 |
| EET 253  Electrical Construction II Lab ......................................... 2 |
| ELT 110  Circuits I ................................................................. 5 |
| EGY 220  Energy Efficiency Electrical Controls ................................ 4 |
| **Total** 21 |

| Energy Utility Technician – 1505033029  |
| *(Offered at GTW)* |
| EET 150  Transformers ............................................................. 2 |
| EET 151  Transformers Lab .......................................................... 1 |
| ELT 110  Circuits I ................................................................. 5 |
| ISX 101  Introduction to Industrial Safety ...................................... 3 |
| EGY 170  Energy Utility Technologies ........................................... 4 |
| Computer/Digital Literacy (NOTE: Computer/Digital literacy must be demonstrated either by competency exam or by successfully completing a computer/digital literacy course.) ........................................ 0-3 |
| **Total** 15-18 |

| Outside Plant Technician – 1505033039  |
| *(Offered at GTW)* |
| ELT 110  Circuits I ................................................................. 5 |
| ETT 110  Voice and Data Installer Level I ...................................... 4 |
| ISX 101  Introduction to Industrial Safety ...................................... 3 |
| EGY 120  Outside Plant Communications ....................................... 4 |
| Computer/Digital Literacy (NOTE: Computer/Digital literacy must be demonstrated either by competency exam or by successfully completing a computer/digital literacy course.) ........................................ 0-3 |
| **Total** 16-19 |

| Solar/Photovoltaic Technologies – 1505033069  |
| *(Offered at ASC, BSC, BLC, GTW)* |
| EET 154  Electrical Construction I ........................................... 2 |
| EET 155  Electrical Construction I Lab .......................................... 2 |
| ELT 110  Circuits I ................................................................. 5 |
| EGY 230  Solar / Photovoltaic Technologies .................................... 4 |
| **Total** 13 |

| Wind System Technologies – 1505033059  |
| *(Offered at BSC, BLC, GTW)* |
| ELT 110  Circuits I ................................................................. 5 |
| IMT 150  Maintaining Industrial Equipment .................................... 3 |
| IMT 151  Maintaining Industrial Equipment Lab ................................ 2 |
| EGY 250  Wind / Turbine Technologies .......................................... 4 |
| **Total** 14 |

**Engineering and Electronics Technology**

The Engineering and Electronics Technology program provides coursework, 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).

<table>
<thead>
<tr>
<th>Associate in Applied Science</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Engineering and Electronics Technology - 1503997019</strong></td>
</tr>
<tr>
<td><em>(Offered at BLC, BSC, ELC, HPC, JFC, OWC, SKY, SMC)</em></td>
</tr>
<tr>
<td><strong>General Education</strong></td>
</tr>
<tr>
<td>MAT 150  College Algebra OR .................................................. 3</td>
</tr>
<tr>
<td>MAT 126  Technical Algebra and Trigonometry OR ........................ 3</td>
</tr>
<tr>
<td>Higher Level Quantitative Reasoning Course .......................... 3</td>
</tr>
<tr>
<td>PHY 171  Applied Physics OR ................................................... 3</td>
</tr>
<tr>
<td>Other Natural Sciences with Consent of Program Coordinator ............ 3</td>
</tr>
<tr>
<td>ENG 101  Writing I .................................................................... 3</td>
</tr>
<tr>
<td>Social/Behavioral Sciences ...................................................... 3</td>
</tr>
<tr>
<td>Oral Communications ............................................................... 3</td>
</tr>
<tr>
<td>Heritage/Humanities ............................................................... 3</td>
</tr>
<tr>
<td><strong>Total: 18-19</strong></td>
</tr>
</tbody>
</table>

| **Core:** |
| ELT 110  Circuits I OR ............................................................ 5 |
| IMT 110  Industrial Maintenance Electrical Principles AND ............. 3 |
| IMT 111  Industrial Maintenance Electrical Principles Lab ............... 2 |
| ELT 114  Circuits II ................................................................ 4 |
| ELT 210  Devices I .................................................................. 4 |
| ELT 120  Digital I ................................................................. 3 |
| CAD 100  Introduction to Computer Aided Design OR ....................... 3 |
| BRX 120  Basic Blueprint Reading OR .......................................... 3 |
| Equivalent Course with Consent of Program Coordinator (3-4) ........................................ 3 |
| ELT 289  Engineering and Electronics Technology Capstone Course ... 1 |
| Digital Literacy ........................................................................ 3 |
| NOTE: If a student takes CAD 100 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track. |
| **Subtotal:** 24-25 |

| Apprenticeship Track – 150399701  |
| *(Offered at JFC)* |
| APS 201  Apprenticeship Studies .................................................. 24 |
| **Total 66-68** |

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.

| Communications Track – 150399708  |
| *(Offered at BLC, ELC)* |
| ELT 214  Devices II ............................................................... 4 |
| ELT 220  Digital II .................................................................. 3 |
| ELT 240  Communications Electronics ......................................... 6 |
| Technical Electives * ............................................................... 7 |
| **Subtotal:** 20 |
| **Total 62-64** |

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.
### Computer Aided Design Track – 150399702

(Offered at HPC, JFC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD 200</td>
<td>Intermediate Computer Aided Drafting</td>
<td>4</td>
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<tr>
<td>CAD 201</td>
<td>Advanced 3D Modeling</td>
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</table>

*Technical Electives: Any EET, ELT, IMT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.

### Computer Maintenance Track – 150399703

(Offered at BLC, ELC, JFC, SMC)

<table>
<thead>
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<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
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<td>Computer Hardware Maintenance AND</td>
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<tr>
<td>ELT 232</td>
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<td>CIT 111</td>
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<tr>
<td>ELT 220</td>
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<tr>
<td>CIT 160</td>
<td>Introduction to Networking Concepts OR</td>
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<td>CIT 161</td>
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</table>

*Technical Electives: Any EET, ELT, IMT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.

### Electronics Track – 150399707

(Offered at BLC, BSC, ELC, HPC, JFC, OWY, SMC)

<table>
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<td>Devices II</td>
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<tr>
<td>EET 244</td>
<td>Electrical Machinery and Controls OR</td>
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<td>EET 270</td>
<td>Electrical Motor Controls I AND</td>
<td>(2)</td>
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<tr>
<td>EET 271</td>
<td>Electrical Motor Controls I Lab</td>
<td>(2)</td>
</tr>
<tr>
<td>EET 250</td>
<td>Programmable Logic Controllers OR</td>
<td>4</td>
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<tr>
<td>EET 276</td>
<td>Programmable Logic Controllers AND</td>
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<td>EET 277</td>
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*Technical Electives: Any EET, ELT, IMT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.

### Industrial Track – 150399704

(Offered at BLC, BSC, HPC, JFC, OWY)

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<tr>
<td>ELT 214</td>
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<td>Digital II</td>
<td>3</td>
</tr>
<tr>
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<td>Electrical Machinery and Controls OR</td>
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<td>EET 270</td>
<td>Electrical Motor Controls I AND</td>
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<td>EET 271</td>
<td>Electrical Motor Controls I Lab</td>
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<td>EET 250</td>
<td>Programmable Logic Controllers OR</td>
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<td>EET 276</td>
<td>Programmable Logic Controllers AND</td>
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*Technical Electives: Any EET, ELT, IMT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.

### Instrumentation Track – 150399709

(Offered at BSC, ELC)

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<td>ISM 102</td>
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<td>ISM 210</td>
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*Technical Electives: Any EET, ELT, IMT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.

### Mechanical Track – 150399706

(Offered at JFC, OWY)

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<td>Mechanical Power Transmission Systems AND</td>
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<td>ELT 124</td>
<td>Mechanical Power Transmission Systems Lab OR</td>
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<td>IMT 150</td>
<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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<tr>
<td>ELT 265</td>
<td>Applied Fluid Power OR</td>
<td>(3)</td>
</tr>
<tr>
<td>FPX 100</td>
<td>Fluid Power AND</td>
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<td>FPX 101</td>
<td>Fluid Power Lab</td>
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*Technical Electives: Any EET, ELT, IMT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.

### Robotics and Automation Track – 150399705

(Offered at BLC, BSC, ELC, HPC, JFC, SKY)

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<td>FPX 100</td>
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<td>FPX 101</td>
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<td>EET 270</td>
<td>Electrical Motor Controls I AND</td>
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<td>EET 271</td>
<td>Electrical Motor Controls I Lab</td>
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<tr>
<td>EET 250</td>
<td>Programmable Logic Controllers OR</td>
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*Technical Electives: Any EET, ELT, IMT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.

### Diplomas

#### Apprenticeship - 1503994059

(Offered at)

### General Education:

Area 1: Written Communication or Oral Communications .... 3

Area 2: College Algebra OR Technical Algebra and Trigonometry OR Higher Level Quantitative Reasoning Course ..... 3

**Subtotal:** 6

### Core:

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<td>IMT 110</td>
<td>Industrial Maintenance Electrical Principles AND</td>
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<td>ELT 114</td>
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<td>ELT 210</td>
<td>Devices I</td>
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<td>ELT 120</td>
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<td>3</td>
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<td>CAD 100</td>
<td>Introduction to Computer Aided Design OR</td>
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<td>BRX 120</td>
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**NOTE:** If a student takes CAD 100 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in a selected track.

**Subtotal:** 25-27
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*Technical Electives: Any EET, ELT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.

**Communications – 1503994029**
*(Offered at BLC, ELC, JFC, OWC, SEC, SMC)*

**General Education:**

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<table>
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<td>Technical Algebra and Trigonometry OR</td>
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<td>Higher Level Quantitative Reasoning Course</td>
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<tr>
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<td>IMT 111 Industrial Maintenance Electrical Principles Lab</td>
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<tr>
<td>ELT 114 Circuits II</td>
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<tr>
<td>ELT 210 Devices I</td>
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<tr>
<td>ELT 120 Digital I</td>
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<tr>
<td>CAD 100 Introduction to Computer Aided Design OR</td>
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<td>BRX 120 Basic Blueprint Reading OR</td>
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<tr>
<td>ELT 289 Engineering and Electronics Technology Capstone Course</td>
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<td>Digital Literacy</td>
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<td>Note: If a student takes CAD 100 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track.</td>
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| Total                                                                  | 51-55 |

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.

**Digital Telephony - 1503994109**

**General Education:**

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<table>
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<tr>
<td>MAT 150 College Algebra OR</td>
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<tbody>
<tr>
<td>ELT 110 Circuits I OR</td>
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<td>IMT 110 Industrial Maintenance Electrical Principles AND</td>
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<td>ELT 114 Circuits II</td>
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<td>ELT 210 Devices I</td>
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<tr>
<td>ELT 120 Digital I</td>
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<tr>
<td>CAD 100 Introduction to Computer Aided Design OR</td>
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<td>BRX 120 Basic Blueprint Reading OR</td>
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<tr>
<td>ELT 289 Engineering and Electronics Technology Capstone Course</td>
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<td>Digital Literacy</td>
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<tr>
<td>Note: If a student takes CAD 100 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track.</td>
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| Total                                                                  | 46-49 |

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.
**Digital Literacy**
Equivalent Course with Consent of Program Coordinator

- ELT 120 Digital I
- ELT 210 Devices I
- ELT 120 Digital I

Core:
- ELT 110 Circuits I
- IMT 111 Industrial Maintenance Electrical Principles AND
- ELT 114 Circuits II
- ELT 210 Devices I
- ELT 214 Devices II
- ELT 220 Digital II
- ELT 210 Devices I
- ELT 120 Digital I

Area 1:
- Written Communication or Oral Communications

Area 2:
- MAT 150 College Algebra OR
- MAT 126 Technical Algebra and Trigonometry OR
- Higher Level Quantitative Reasoning Course

Subtotal: 6

General Education:

- MAT 126 Technical Algebra and Trigonometry
- Higher Level Quantitative Reasoning Course

Subtotal: 6

Total: 25-27

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.

**Electronics – 1503994079**
*(Offered at BLC, HPC, JFC, OWC, SEC)*

**General Education:**

- Written Communication or Oral Communications

**Area 1:**
- MAT 150 College Algebra OR
- MAT 126 Technical Algebra and Trigonometry OR

**Subtotal:** 6

**Core:**
- ELT 110 Circuits I
- IMT 111 Industrial Maintenance Electrical Principles AND
- ELT 114 Circuits II
- ELT 210 Devices I
- ELT 214 Devices II
- ELT 220 Digital II
- ELT 220 Digital II
- ELT 120 Digital I
- CAD 100 Introduction to Computer Aided Design OR
- BRX 120 Basic Blueprint Reading OR

**Total:** 51-53

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.

**Engineering Design Technician – 1503994089**
*(Offered at JFC)*

**General Education:**

- Written Communication or Oral Communications

**Area 1:**
- MAT 150 College Algebra OR
- MAT 126 Technical Algebra and Trigonometry OR

**Total:** 6

**Core:**
- ELT 110 Circuits I
- IMT 111 Industrial Maintenance Electrical Principles AND
- ELT 114 Circuits II
- ELT 210 Devices I
- ELT 220 Digital II
- ELT 120 Digital I
- CAD 100 Introduction to Computer Aided Design OR
- BRX 120 Basic Blueprint Reading OR

**Total:** 25-27

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.
### Instrumentation – 1503994099
*(Offered at ELC)*

**General Education:**

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<tbody>
<tr>
<td>Area 2</td>
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<tr>
<td>MAT</td>
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<td>MAT</td>
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**Core:**

| ELT 110 | Circuits I                                           | 5 |
| IMT 110 | Industrial Maintenance Electrical Principles AND    | 3 |
| IMT 111 | Industrial Maintenance Electrical Principles Lab     | 2 |
| ELT 114 | Circuits II                                          | 5 |
| ELT 210 | Devices I                                            | 4 |
| ELT 120 | Digital I                                             | 3 |
| CAD 100 | Introduction to Computer Aided Design OR             | 3 |
| BRX 120 | Basic Blueprint Reading OR                          | 3 |
|        | Equivalent Course with Consent of Program Coordinator(3-4) |   |
| ELT 289 | Engineering and Electronics Technology Capstone Course | 1 |
|        | Digital Literacy                                     | 3 |
| **NOTE:** | If a student takes CAD 100 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track. |   |
| COED 198 | Practicum OR                                        | 1 |
| COE 199  | Cooperative Education OR                            | 2 |
| **Subtotal:** |                                           | **20** |
| **Total:**  |                                             | **51-53** |

**COED 198** Practicum OR
**COE 199** Cooperative Education OR
Equivalent Course with Consent of Program Coordinator(1-2)

**Subtotal:**

**Total:**

53-56

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.

### Robotics and Automation – 1503994039
*(Offered at BLC, BSC, HPC, JFC, OWC, SKY)*

**General Education:**

<table>
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<th>Area 1</th>
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<tbody>
<tr>
<td>Area 2</td>
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</tr>
<tr>
<td>MAT</td>
<td>150 College Algebra OR</td>
<td>3</td>
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<td>MAT</td>
<td>126 Technical Algebra and Trigonometry OR</td>
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<td>Higher Level Quantitative Reasoning Course</td>
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**Core:**

| ELT 110 | Circuits I                                           | 5 |
| IMT 110 | Industrial Maintenance Electrical Principles AND    | 3 |
| IMT 111 | Industrial Maintenance Electrical Principles Lab     | 2 |
| ELT 114 | Circuits II                                          | 5 |
| ELT 210 | Devices I                                            | 4 |
| ELT 120 | Digital I                                             | 3 |
| CAD 100 | Introduction to Computer Aided Design OR             | 3 |
| BRX 120 | Basic Blueprint Reading OR                          | 3 |
|        | Equivalent Course with Consent of Program Coordinator(3-4) |   |
| ELT 289 | Engineering and Electronics Technology Capstone Course | 1 |
|        | Digital Literacy                                     | 3 |
| **NOTE:** | If a student takes CAD 100 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track. |   |
| COED 198 | Practicum OR                                        | 1 |
| COE 199  | Cooperative Education OR                            | 2 |
| **Subtotal:** |                                           | **20** |
| **Total:**  |                                             | **52-54** |

**COED 198** Practicum OR
**COE 199** Cooperative Education OR
Equivalent Course with Consent of Program Coordinator(1-2)

**Subtotal:**

**Total:**

52-54

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.

### Mechanical – 1503994069
*(Offered at JFC, OWC)*

**General Education:**

<table>
<thead>
<tr>
<th>Area 1</th>
<th>Written Communication or Oral Communications</th>
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<tbody>
<tr>
<td>Area 2</td>
<td><strong>AND</strong></td>
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<tr>
<td>MAT</td>
<td>150 College Algebra OR</td>
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<tr>
<td>MAT</td>
<td>126 Technical Algebra and Trigonometry OR</td>
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<td>Higher Level Quantitative Reasoning Course</td>
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**Core:**

| ELT 110 | Circuits I                                           | 5 |
| IMT 110 | Industrial Maintenance Electrical Principles AND    | 3 |
| IMT 111 | Industrial Maintenance Electrical Principles Lab     | 2 |
| ELT 114 | Circuits II                                          | 5 |
| ELT 210 | Devices I                                            | 4 |
| ELT 120 | Digital I                                             | 3 |
| CAD 100 | Introduction to Computer Aided Design OR             | 3 |
| BRX 120 | Basic Blueprint Reading OR                          | 3 |
|        | Equivalent Course with Consent of Program Coordinator(3-4) |   |
| ELT 289 | Engineering and Electronics Technology Capstone Course | 1 |
|        | Digital Literacy                                     | 3 |
| **NOTE:** | If a student takes CAD 100 to meet Digital Literacy requirements, he/she MUST take an additional three (3) credit hours of elective credit not used in the selected track. |   |
| COED 198 | Practicum OR                                        | 1 |
| COE 199  | Cooperative Education OR                            | 2 |
| **Subtotal:** |                                           | **20** |
| **Total:**  |                                             | **51-53** |

**COED 198** Practicum OR
**COE 199** Cooperative Education OR
Equivalent Course with Consent of Program Coordinator(1-2)

**Subtotal:**

**Total:**

53-56

*Technical Electives: Any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other course as approved by the program coordinator.
Certificates

Automation Technician – 1503993229
(Offered at BLC, BSC, HEC, HPC, JFC, OWC, SEC, SKY)

ELT 110 Circuits I OR ................................................. 5  
IMT 110 Industrial Maintenance Electrical Principles AND ........... (3)  
IMT 111 Industrial Maintenance Electrical Principles Lab ................. (2)  
ELT 244 Electrical Machinery and Controls OR .......................... 4  
EET 270 Electrical Motor Controls I AND ................................ (2)  
EET 271 Electrical Motor Controls I Lab ..................................... (2)  
ELT 250 Programmable Logic Controllers OR .............................. 4  
EET 276 Programmable Logic Controllers AND ........................... (2)  
EET 277 Programmable Logic Controllers Lab ............................. (2)  
ELT 265 Applied Fluid Power ................................................ 3  
Total 16

CAD Technician – 1503993239
(Offered at HPC, JFC, OWC, SEC, SKY)

CAD 100 Introduction to CAD ............................................. 3  
CAD 200 Intermediate Computer Aided Drafting ........................... 4  
Total Credits 7

Communications Technician – 1503993039
(Offered at BLC, BSC, ELC, HEC, JFC, OWC, SEC, SM C)

ELT 110 Circuits I OR .......................................................... 5  
IMT 110 Industrial Maintenance Electrical Principles AND ........... (3)  
IMT 111 Industrial Maintenance Electrical Principles Lab ................. (2)  
ELT 114 Circuits II .............................................................. 3  
ELT 210 Devices I ............................................................... 4  
ELT 214 Devices II .............................................................. 4  
ELT 120 Digital I ................................................................. 3  
ELT 240 Communications Electronics ........................................ 6  
Total 27

Computer Maintenance Technician – 1503993029
(Offered at BLC, BSC, ELC, HEC, JFC, OWC, SEC, SM C)

ELT 110 Circuits I OR .......................................................... 5  
IMT 110 Industrial Maintenance Electrical Principles AND ........... (3)  
IMT 111 Industrial Maintenance Electrical Principles Lab ................. (2)  
ELT 120 Digital I ................................................................. 3  
ELT 130 Digital Literacy ......................................................... 3  
CIT 111 Computer Hardware and Software OR ........................... 4  
EET 234 Electrical Hardware Maintenance AND ........................... (3)  
ELT 232 Computer Software Maintenance .................................. (3)  
Total 15-17

Digital Telephony Technician – 1503993119
(Offered at BSC, JFC, OWC, SEC)

ELT 222 Mechanics of Telephony ............................................. 3  
ELT 224 Basic Telecoms Installation and Maintenance .................... 3  
ELT 226 Safety in the Workplace OR ...................................... 2  
ISX 100 Industrial Safety ....................................................... (3)  
ELT 110 Circuits I ................................................................. 5  
ELT 120 Digital I ................................................................. 3  
ELT 125 Digital Literacy ......................................................... 3  
Total 19-20

Electronics Technician – 1503993069
(Offered at BLC, BSC, ELC, HEC, JFC, OWC, SEC, SKY, SM C)

ELT 110 Circuits I OR .......................................................... 5  
IMT 110 Industrial Maintenance Electrical Principles AND ........... (3)  
IMT 111 Industrial Maintenance Electrical Principles Lab ................. (2)  
ELT 114 Circuits II .............................................................. 5  
ELT 210 Devices I ............................................................... 4  
ELT 214 Devices II .............................................................. 4  
ELT 120 Digital I ................................................................. 3  
ELT 220 Digital II ............................................................... 3  
Total 24

Electronics Tester – 1503993089
(Offered at BLC, BSC, ELC, HEC, HPC, JFC, OWC, SEC, SM C)

ELT 110 Circuits I OR .......................................................... 5  
IMT 110 Industrial Maintenance Electrical Principles AND ........... (3)  
IMT 111 Industrial Maintenance Electrical Principles Lab ................. (2)  
ELT 114 Circuits II .............................................................. 5  
ELT 120 Digital I ................................................................. 3  
ELT 250 Programmable Logic Controllers OR ............................ 4  
EET 276 Programmable Logic Controllers AND ........................... (2)  
EET 277 Programmable Logic Controllers Lab ............................. (2)  
Total 13

Industrial Electronics Technician I – 1503993129
(Offered at BLC, BSC, ELC, HEC, HPC, JFC, OWC, SEC, SKY)

ELT 110 Circuits I OR .......................................................... 5  
IMT 110 Industrial Maintenance Electrical Principles AND ........... (3)  
IMT 111 Industrial Maintenance Electrical Principles Lab ................. (2)  
ELT 114 Circuits II .............................................................. 5  
ELT 210 Devices I ............................................................... 4  
ELT 214 Devices II .............................................................. 4  
ELT 120 Digital I ................................................................. 3  
ELT 220 Digital II ............................................................... 3  
ELT 244 Electrical Machinery and Controls OR ........................... 4  
EET 270 Electrical Motor Controls I AND ................................ (2)  
EET 271 Electrical Motor Controls I Lab .................................... (2)  
ELT 250 Programmable Logic Controllers OR ............................ 4  
EET 276 Programmable Logic Controllers AND ........................... (2)  
EET 277 Programmable Logic Controllers Lab ............................. (2)  
Total 17

Industrial Electronics Technician II – 1503993139
(Offered at BLC, BSC, HPC, JFC, OWC, SEC, SM C)

ELT 110 Circuits I OR .......................................................... 5  
IMT 110 Industrial Maintenance Electrical Principles AND ........... (3)  
IMT 111 Industrial Maintenance Electrical Principles Lab ................. (2)  
ELT 114 Circuits II .............................................................. 5  
ELT 210 Devices I ............................................................... 4  
ELT 214 Devices II .............................................................. 4  
ELT 120 Digital I ................................................................. 3  
ELT 220 Digital II ............................................................... 3  
ELT 244 Electrical Machinery and Controls OR ........................... 4  
EET 270 Electrical Motor Controls I AND ................................ (2)  
EET 271 Electrical Motor Controls I Lab .................................... (2)  
ELT 250 Programmable Logic Controllers OR ............................ 4  
EET 276 Programmable Logic Controllers AND ........................... (2)  
EET 277 Programmable Logic Controllers Lab ............................. (2)  
Total 32

Instrumentation Technician – 1503993249
(Offered at ELC, JFC, OWC, SEC)

ELT 110 Circuits I OR .......................................................... 5  
EET 119 Basic Electricity OR .................................................. (5)  
IMT 110 IMT Electrical Principles AND .................................... (3)  
IMT 111 IMT Electrical Principles Lab ....................................... (2)  
ISM 102 Fundamentals of Instrumentation .................................... 4  
ISM 210 Fundamentals of Process Control ................................... 4  
Total 13

Maintenance Technician – 1503993059
(Offered at BLC, BSC, ELC, HEC, JFC, OWC, SEC, SKY)

CAD 100 Introduction to Computer Aided Design OR ........................ 3  
BRX 120 Basic Blueprint Reading OR ....................................... (3)  
ELT 110 Circuits I OR .......................................................... 5  
IMT 110 Industrial Maintenance Electrical Principles AND ........... (3)  
IMT 111 Industrial Maintenance Electrical Principles Lab ................. (2)  
ELT 114 Circuits II .............................................................. 5  
ELT 265 Applied Fluid Power .................................................. 3  
ELT 244 Electrical Machinery and Controls OR ........................... 4  
EET 270 Electrical Motor Controls I AND ................................ (2)  
EET 271 Electrical Motor Controls I Lab .................................... (2)  
ELT 250 Programmable Logic Controllers OR ............................ 4  
EET 276 Programmable Logic Controllers AND ........................... (2)  
EET 277 Programmable Logic Controllers Lab ............................. (2)  
Total 24-25
Environmental Science Technology

This program includes specialized environmental science courses in addition to general education coursework to provide individuals the background necessary for understanding the ecological relationships of the environment. Coursework also emphasizes the application of scientific principles to pollution control problems in accordance with state and federal regulations. Practical lab and field experience in sampling and analysis will be stressed. Emphasis is placed on developing the students' ability to function effectively in a variety of job situations.

Graduates of this program will be prepared to sample and analyze air, water, and soil in accordance with state and federal regulations. Environmental technicians may be responsible for such job duties as air pollution surveillance, analysis of water and wastewater samples, ground water and surface water assessment, field sampling, data interpretation, and other support services to engineering and science professionals.

Graduates in this field may be employed as technicians by federal, state and local governmental units as well as utilities, private industry, and environmental engineering consulting firms.

Admissions Requirements

The following information has been taken from the Rules of the Senate and is subject to change without notice. All applicants meeting the appropriate academic requirements shall be considered equally for admission to Bluegrass Community and Technical College or to any academic program thereof regardless of economic or social status, and without discrimination on the basis of race, color, religion, sex, marital status, beliefs, age, national origin, sexual orientation, or physical or mental disability.

In order to be admitted to the Environmental Science Technology (EST) Program, each student must be admitted to Bluegrass Community and Technical College.

In order to be admitted to the Environmental Science Technology Program, a student must:

1. Complete EST 150, EST 160, and MA 109 with a passing grade or transfer credit from an accredited institution for comparable courses (to be assessed by EST Coordinator), and
2. Attend a pre-admission conference with the EST Program coordinator or the coordinator’s designee.

Associate in Applied Science

Environmental Science Technology - 1505077019

(Offered at BLC)

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<th>Credits</th>
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<tr>
<td>ENG 102</td>
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Total Credits 61

Technical Electives

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<tr>
<td>STA 210</td>
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</table>

Courses not on this list may be approved at the coordinator’s discretion.

* Satisfies General Education requirement for A.S degrees
Environmental Technology

The environmental technology program has been developed in concert with various regulatory agencies, state universities and businesses and industries. Environmental Technicians conducts tests and field investigations to obtain data for use by environmental, engineering, and scientific personnel in determining sources and methods of controlling pollutants in air, water and soil, by utilizing knowledge of agriculture, chemistry, meteorology, engineering principles and applied technologies.

Certificates

Hazardous Materials Technician - 1505073019
(Offered at BLC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CPU 100</td>
<td>Introduction to Computers</td>
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<tr>
<td>ENV 100</td>
<td>Environmental Mathematics</td>
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<td>ENV 111</td>
<td>Environmental Sampling Techniques Lab</td>
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<tr>
<td>ENV 120</td>
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</tr>
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<td>ENV 121</td>
<td>Environmental Chemistry Lab</td>
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<tr>
<td>ENV 140</td>
<td>Geology, Hydrology and Soils</td>
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<tr>
<td>ENV 141</td>
<td>Geology, Hydrology and Soils Lab</td>
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<tr>
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<td>ENV 261</td>
<td>Hazardous Materials Lab</td>
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<tr>
<td>ENV 270</td>
<td>Treatment and Disposal Technologies</td>
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<tr>
<td>TEC 200</td>
<td>Technical Communications</td>
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Electives:

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<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENV 293</td>
<td>Special Problems I</td>
</tr>
<tr>
<td>ENV 295</td>
<td>Special Problems II</td>
</tr>
<tr>
<td>ENV 297</td>
<td>Special Problems III</td>
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</table>

Total Credits 37

Waste Processing Attendant – 1505073029
(Offered at BSC)

<table>
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<th>Course</th>
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<tbody>
<tr>
<td>ENV 110</td>
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<tr>
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<td>ENV 295</td>
<td>Special Problems II</td>
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<tr>
<td>ENV 297</td>
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Total Credits 21

Wastewater Treatment Plant Attendant – 1505073039
(Offered at BSC)

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<td>ENV 110</td>
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<td>ENV 291</td>
<td>Wastewater Treatment Technology Lab</td>
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<tbody>
<tr>
<td>ENV 293</td>
<td>Special Problems I</td>
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<tr>
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<td>ENV 297</td>
<td>Special Problems III</td>
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</tbody>
</table>

Total Credits 20

Wastewater Treatment Plant Operator - 1505073049

<table>
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<tr>
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<td>ENV 100</td>
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Total Credits 36

Water Treatment Plant Attendant – 1505073059
(Offered at BSC)

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Electives:

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<td>ENV 297</td>
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</table>

Total Credits 20

Water Treatment Plant Operator - 1505073069

<table>
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<tr>
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</tr>
<tr>
<td>ENV 297</td>
<td>Special Problems III</td>
</tr>
</tbody>
</table>

Total Credits 36
**Equine Studies**

The Equine Studies Program prepares students for entrance into the equine workforce with a focus on the thoroughbred racing industry. A core curriculum provides students with a foundation of knowledge applicable to any career in the equine workforce. Students will learn the basics of horse care, anatomy and physiology, lameness, health and nutrition and equine business principles. Students will also learn all aspects of the equine industry as it relates to the thoroughbred industry including organizations, regulations, and the life skills necessary for successful careers in the industry.

The program of study provides a foundation of education and training geared toward the expectations of employers in the equine/ thoroughbred industries within two degree areas: Jockey Track and Horseman Track. Imbedded within the curriculum for each track are diplomas and certificates that provide the basic foundational skills for entry or mid-level employment in the respective area of the industry.

Jockey Track degree and diploma graduates will have the knowledge and skills for a career as a professional rider. Students will learn principles of balance as it relates to efficient racehorse exercise; proper position and use of hands, arms, legs, back and head when riding or exercising a racehorse; requirements for advancing to a professional jockey career; and life skills necessary to be a professional racehorse rider or jockey. Imbedded within the Jockey Track curriculum is the Exercise Rider Certificate that provides basic skills and techniques to prepare the student to become a professional exercise rider.

Horseman Track graduates will have the knowledge and skills for a career in the equine/thoroughbred workforce such as grooms, assistant trainers, racing officials, farm management, bloodstock agents and other professions in the racing and breeding industries. Students will learn the principles and techniques as they relate to the breaking, prepping and training of horses; health and nutrition; equine management; and life skills necessary to be a professional in the equine/thoroughbred workforce. Imbedded in the Horseman Track curriculum is the Racehorse Care and Breaking Certificate to provide students with the basics of horse care and principles and techniques as they relate to the breaking and prepping of horses.

**Other Certificates:**

The Equine Industry Workforce Certificate will prepare students for entry level careers in the equine industry. Students will learn the basics of equine studies, equine physiology, and care of the racehorse. Lecture classes will be provided online through BCTC/NARA, while the hands-on laboratory work associated with the courses may be offered by BCTC/NARA or in partnerships with other KCTCS colleges and racecourses within their districts.

The Veterinary Assistant Certificate will prepare students for application into the AAS in Veterinary Technology program at Morehead State University. Students will receive a core of general education courses, as well as an introduction to animal sciences and physiology. The racehorse care class and one credit hour of co-operative education in a local veterinary clinic will provide the student with the work experience/job shadowing hours typically required for consideration of acceptance into a Veterinary Technology program.

---

**Associate in Applied Science**

**Equine Studies - 0105077019**

(Offered at BLC)

**General Education:**

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

Total General Education Requirements 15

**Technical Core:**

- Computer/Digital Literacy ........................................... 0-3
- EQS 101 Introduction to the Thoroughbred ......................... 3
- EQS 103 Racehorse Care ............................................... 1
- EQS 104 Racehorse Care Lab ......................................... 3
- EQS 110 Basic Equine Physiology ..................................... 3
- EQS 125 Equine Nutrition .............................................. 3
- EQS 130 Introduction to the Racing Industry ....................... 3
- EQS 200 Lameness in Racehorses .................................... 3
- EQS 240 Equine Legal and Business Principles .................... 3
- Technical Electives ..................................................... 6

Total Technical Core 28-31

**Horseman Track - 010507702**

(Offered at BLC)

- EQS 118 Equine Bloodstock ........................................... 3
- EQS 121 Introduction to Breaking and Training Racehorses ....... 1
- EQS 122 Yearling Breaking and Training ............................ 3
- EQS 123 Breaking and Prepping Two Year Olds .................... 3
- EQS 223 Training Principles and Practices ......................... 4
- EQS 225 Life Skills for Horsemen ..................................... 3

Subtotal Horseman Track 17

Total Horseman Track 60-63

**Jockey Track - 010507701**

(Offered at BLC)

- EQS 111 Introduction To Riding Racehorses ......................... 1
- EQS 112 Racehorse Riding Skills I .................................. 4
- EQS 113 Racehorse Riding Skills II ................................ 4
- EQS 212 Racehorse Riding Principles ................................ 3
- EQS 213 Racehorse Riding Techniques ................................ 2
- EQS 215 Life Skills for Jockeys ....................................... 3

Subtotal Jockey Track 17

Total Jockey Track AAS 60-63

**Approved Technical Electives**

Any EQM or EQS course from alternate track. Six (6) credit hours of electives must be taken from the approved list.

- SPA 101 Elementary Spanish ........................................... 4
- EQM 120 Introduction to Commercial Breeding Practices .......... 3
- EQS 118 Equine Bloodstock ........................................... 3
- EQS 299 Equine Cooperative Education (internship) ............. 1-9

---

**Diplomas**

**Equine Studies - 0105074019**

(Offered at BLC)

**General Education Core**

- Area I (Written Communication / Oral Communications, or Humanities/Heritage) ......................................................... 3
- Area II (Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning) ....................................................... 3

General Education Total 6
Technical Core

- EQS 101 Introduction to the Thoroughbred ........................................ 3
- EQS 103 Racehorse Care .................................................................. 1
- EQS 104 Racehorse Care Lab ......................................................... 3
- EQS 110 Basic Equine Physiology ................................................... 3
- EQS 125 Equine Nutrition ............................................................... 3
- EQS 130 Introduction to the Racing Industry ..................................... 3
- EQS 200 Lameness in Racehorses ..................................................... 3
- EQS 240 Equine Legal and Business Principles ................................. 3
- EQS 299 Equine Cooperative Education (1 credit hour min required in diploma. Additional credits may count toward elective credits.) ................. 1
- Technical Electives ......................................................................... 6
Total Technical Core ...................................................................... 29-32

Horsemanship Track - 010507402

(Offered at BLC)

- EQS 118 Equine Bloodstock ................................................................ 3
- EQS 121 Introduction to Breaking and Training Racehorses ............... 1
- EQS 122 Yearling Breaking and Training ........................................... 3
- EQS 123 Breaking and Prepping Two Year Olds ............................... 3
- EQS 223 Training Principles and Practices ...................................... 4
- EQS 225 Life Skills for Horsemens ................................................... 3
Subtotal Horsemanship Track ............................................................ 17

Total Horsemanship Track ................................................................ 52-55

Jockey Track - 010507401

(Offered at BLC)

- EQS 111 Introduction to Riding Racehorses .................................. 1
- EQS 112 Racehorse Riding Skills I .................................................. 4
- EQS 113 Racehorse Riding Skills II .................................................. 4
- EQS 212 Racehorse Riding Principles .............................................. 3
- EQS 213 Racehorse Riding Techniques .......................................... 2
- EQS 215 Life Skills for Jockeys ........................................................ 3
Subtotal Jockey Track ..................................................................... 17

Total Jockey Track Diploma ................................................................. 52-55

Approved Technical Electives

Any EQM or EQS course from alternate track. Six (6) credit hours of electives must be taken from the approved list. This list is not all inclusive. Other technical elective courses may be taken with approval of the program advisor/faculty.

- SPA 101 Elementary Spanish .......................................................... 4
- EQM 120 Introduction to Commercial Breeding Practices .................. 3
- EQS 118 Equine Bloodstock ............................................................ 3
- EQS 299 Equine Cooperative Education (internship) ....................... 1-9

Exercise Science

The Personal Trainer Certificate Program is comprised of American Council on Exercise (ACE) curricula, and will provide real-world experiences, skills, and knowledge needed to assess, design, and implement a personalized exercise program for clients. Graduates are eligible to take the ACE Personal Trainer Exam to become ACE-certified personal trainers.

CPR and Standard First Aid requirements must be obtained and kept current by completing program approved CPR and Standard First Aid courses prior to completing the certificate.

Certificate

Personal Trainer - 5109993029

(Offered at BSC)

- MIT 103 Medical Office Terminology OR ........................................ 3
- CLA 131 Medical Terminology from Greek and Latin OR ................ 3
- AHS 115 Medical Terminology ....................................................... 3
- CPR 100 CPR for the Healthcare Professional ................................. 1
- SFA 100 Safety and First Aid ........................................................... 1
- BAS 200 Small Business Management OR .................................... 3
- BAS 288 Personal and Organizational Leadership ............................ 3
- MSG 100 Musculoskeletal Anatomy and Physiology OR ............... 4
- BIO 135 Basic Anatomy and Physiology with Laboratory ................. 4
- KHP 150 Personal Health Behavior ................................................ 3
- KHP 160 Personal Nutrition and Fitness .......................................... 3
- KHP 225 Exercise Techniques and Physical Training ....................... 3
- KHP 235 Personal Trainer Practicum ............................................. 2
Total Credits .................................................................................. 23
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 – 520803019

(Offered at OWC)

SPA 101 Elementary Spanish ................................................. 4
QMS 201 Customer Service Improvement Skills ....................... 3
OST 235 Business Communication Technology OR .................. 3
COM 252 Introduction to Interpersonal Communication ............ (3)
BAS 120 Personal Finance OR .............................................. 3
BAS 294 Money and Financial Institutions ................................ (3)
Total Credits 13

Fire/Rescue Science Technology

Fire/Rescue Science Technology:

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

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

General Education:

Heritage/Humanities ...................................................... 3
Quantitative Reasoning .................................................... 3
Natural Sciences .............................................................. 3
Social/Behavioral Sciences ............................................... 3
Written Communication .................................................... 3
Subtotal 15

Technical 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, JFC, MDC, MYC, OWC, SKY, SMC, WKC)

General Education:

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

Technical Courses:

Computer/Digital Literacy Course OR demonstrated competency .................................................. 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 52-55

NOTE: All FRS courses are available in modules; see course description section.
Certificate

Advanced Firefighter - 4302033029
(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MDC, MYC, OWC, SKY, SMC, WKC)
FRS 101 Introduction to Fire Service 3
FRS 102 Firefighters Basic Skills I 3
FRS 103 Firefighters Basic Skills II 3
FRS 104 Firefighters Intermediate Skills I 3
FRS 105 Firefighters Intermediate Skills II 3
FRS 201 Firefighters Advanced Skills I 3
FRS 202 Firefighters Advanced Skills II 3
FRS 203 Firefighters Advanced Skills III 3
Total Credits 24

NOTE: All FRS courses are available in modules; see course description section.

Basic Firefighter - 4302033019
(Offered at ASC, BLC, BSC, ELC, GTW, HZC, JFC, MDC, MYC, OWC, SKY, SMC, WKC)
FRS 101 Introduction to Fire Service 3
FRS 102 Firefighters Basic Skills I 3
FRS 103 Firefighters Basic Skills II 3
FRS 104 Firefighters Intermediate Skills I 3
Total Credits 12

NOTE: All FRS courses are available in modules; see course description section.

Emergency Medical Technician - 5109042010
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
FRS 2061 Emergency Medical Technician OR 6
EMS 105 Emergency Medical Technician 6
Total Credits 6

NOTE: Contact faculty concerning pre-requisites

Fire Officer - 4302033039
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SKY, SMC, WKC)
FRS 2051 Fire Prevention, Public Education and Fire Cause Determination II 0.5
FRS 2052 Firefighter Survival and Rescue 1.1
FRS 2053 Hazardous Materials Technician 3.4
FRS 2062 Managing Company Tactical Operations: Decision Making 1.0
FRS 2063 Instructional Techniques for Company Officers 1.0
FRS 2071 Company Officer 3.5
FRS 2072 Incident Command System (ICS) 0.9
FRS 2073 Leadership I: Strategies for Company Success 0.8
FRS 2074 Fire/Arson Detection (Arson I) 0.8
Total Credits 13

NOTE: All FRS courses are available in modules; see course description section.

General Occupational/Technical Studies

The Associate in Applied Science degree in General Occupational/Technical Studies provides flexible alternatives for meeting student and employer needs. This program serves two general purposes: 1) Individualized program – provides a flexible curriculum that can be designed to meet specific student and workplace needs, and 2) Degree completion – provides a structure through which credit may be granted for significant prior learning experiences in occupational/technical areas.

Credit earned through certificate and diploma program completion will be applicable toward the Associate in Applied Science in General Occupational/Technical Studies degree when consistent with the objectives of the student’s individual plan of study. This heavily advisor-driven model can combine certificates and/or diplomas in different disciplines for meeting employer needs for unique skill combinations for which there is no established degree program. As much as twenty hours of credit for experiential learning may be applied toward degree completion. KCTCS certificate and diploma credit and acceptable credit transferred from other colleges may also be applied to a student’s program completion plan. At least 25 percent of the approved curriculum credits must be completed at the KCTCS institution granting the degree.

Associate in Applied Science

General Occupational/Technical Studies - 3099997017
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)
Available Completely Online

General Education Component Minimum
- Quantitative Reasoning 3
- Natural Sciences 3
- Social/Behavioral Sciences 3
- Heritage/Humanities 3
- Written Communication 3
- Additional General Education Coursework 0-5
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) 45-50
Subtotal 45-53
Total Credits 60-68

NOTE:
1. If computer/digital literacy is demonstrated by a competency exam, an additional three credit hour course is required.
2. The student must have a plan of study on file in the academic affairs office.
3. A combination of general education and technical courses should not exceed 68 credits.
The rapidly growing field of Geospatial Technologies (GST) enables users of spatial data the ability to make informed decisions. GST utilizes both time and place as analysis factors. GST is recognized by the U.S. Department of Labor as a high growth, high wage, green industry with a bright outlook. Completers of the certificate will have the skills for employment in GST or associated fields such as Unmanned Aircraft System, agriculture, remote sensing, geospatial intelligence, environmental science, crime analysis, and/or demographics.

**Certificate**

**Applications of Geospatial Technology - 4507023029**

(Offered at JFC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 125</td>
<td>Introduction to GIS</td>
<td>3</td>
</tr>
<tr>
<td>CIT 225</td>
<td>GIS Software Tools</td>
<td>3</td>
</tr>
<tr>
<td>GIS 145</td>
<td>Remote Sensing</td>
<td>3</td>
</tr>
<tr>
<td>GIS 255</td>
<td>Geospatial Programming</td>
<td>3</td>
</tr>
<tr>
<td>GIS 360</td>
<td>Geospatial Web Mapping</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits 15**

**Global Studies**

The Associate of Applied Science Degree in Global Studies (Transfer) is designed to prepare students to be more globally aware and globally literate employees and citizens of the Commonwealth of Kentucky, the United States, and the world. It exposes students to a diverse set of courses and competencies which will prepare them to live and work in settings with diverse ethnic and cultural populations and to function more effectively as members of an increasingly interconnected world.

**Certificate**

**Global Studies - 3020013010**

(Offered at JFC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 254</td>
<td>Introduction to Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Global Studies Heritage1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Global Studies Humanities/Fine Arts2</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Global Studies Natural Science/Business3</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Global Studies Social Interaction4</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

**Total 19**

1 Select from Global Studies Humanities/Fine Arts list.
2 Select from Global Studies Heritage list.
3 Select from Global Studies Natural Science list.
4 Select from Global Studies Social Interaction list.

**Graphic Design and Library Technology**

The Graphic Design and Library Technology program prepares students for careers in various industries utilizing cutting-edge technology within graphic design, video game design, and library professions. Students can choose from AAS degrees in three tracks and certificates in four areas.

The Graphic Design track provides the concepts and skills needed to create and produce design projects such as brochures, flyers, newsletters, logos, product packaging, photo restorations and manipulations, multimedia presentations, simple illustrations, and web sites using industry-standard techniques and graphic design applications. The courses within the Graphic Design track will assist with preparation for Adobe Certifications. A two-year AAS degree is available in Graphic Design, and a 15-hour certificate is also offered.

The Library Information Technology (LIT) track prepares graduates for paraprofessional library work, and the courses in this track may be used to meet Kentucky public library certification requirements. A two-year AAS degree is offered in LIT, and a 15-hour certificate is also available. This certificate prepares students for paraprofessional jobs in libraries. Upon completion of the academic certificate, students will be able to perform basic library reference services using print and online sources, plan and produce library services and programs, demonstrate information literacy skills, and describe the role of libraries as agencies for information services.

The Video Game Design track prepares students to design, develop, and market digital games and simulations. This track focuses on artistic and multimedia game design and development. A two-year AAS degree is available in Video Game Design, and a 15-hour certificate is also offered. A 12-hour Digital Video certificate is also available, and provides skills in digital video editing and visual effects.

All Library Information Technology, Graphic Design, Video Game Design, and Digital Video courses are available as web-based distance learning courses. Students can complete the degree or certificate 100% online.

**Associate in Applied Science**

**Graphic Design and Library Technology - 1108017019**

(Offered at BLG)

**General Education Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I*</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II*</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics Course*</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Natural Sciences Course*</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Heritage/Humanities Course*</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Sciences Course*</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

**Subtotal 18**

1 General Education
2 Select from Global Studies Humanities/Fine Arts list.
3 Students who pass the computer/digital literacy exam in lieu of completing an approved computer/digital literacy course must take an additional three (3) credits of Global Studies credit from the approved Global Studies course lists.
4 Select from Global Studies Heritage list.
5 Select from Global Studies Natural Science list.
6 Select from Global Studies Social Interaction list.
### Core Content:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMD 100</td>
<td>Digital Information and Communications Technology</td>
<td>3</td>
</tr>
<tr>
<td>IMD 133</td>
<td>Beginning Web Design</td>
<td>3</td>
</tr>
<tr>
<td>IMD 126</td>
<td>Introduction to Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>IMD 115</td>
<td>Introduction to Graphic Design</td>
<td>3</td>
</tr>
<tr>
<td>IMD 270</td>
<td>Professional Practices</td>
<td>3</td>
</tr>
<tr>
<td>IMD 275</td>
<td>Information Management &amp; Communications</td>
<td>3</td>
</tr>
<tr>
<td>COE 199</td>
<td>Coop Education OR</td>
<td>3</td>
</tr>
<tr>
<td>IMD 271</td>
<td>Internship</td>
<td>(3)</td>
</tr>
</tbody>
</table>

**Subtotal** 21

**Subtotal (General Education & Core Content)** 39

*Satisfies General Education requirement for the AAS degree*

### Graphic Design Track - 110801702

*(Offered at BLC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMD 127</td>
<td>Vector Design with Adobe Illustrator</td>
<td>3</td>
</tr>
<tr>
<td>IMD 128</td>
<td>Raster Design with Adobe Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>IMD 180</td>
<td>Intermediate Web Design</td>
<td>3</td>
</tr>
<tr>
<td>IMD 226</td>
<td>Advanced Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>IMD 280</td>
<td>Portfolio Practicum: Graphic Design</td>
<td>3</td>
</tr>
<tr>
<td>IMD 277</td>
<td>Typography</td>
<td>3</td>
</tr>
<tr>
<td>IMD 228</td>
<td>Advanced Photoshop OR</td>
<td>3</td>
</tr>
<tr>
<td>IMD 229</td>
<td>Advanced Illustrator</td>
<td>(3)</td>
</tr>
</tbody>
</table>

**Subtotal** 21

**Total** 60

### Library Information Technology Track - 110801704

*(Offered at BLC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIT 115</td>
<td>Introduction to Reference Services</td>
<td>3</td>
</tr>
<tr>
<td>LIT 124</td>
<td>Library Administration</td>
<td>3</td>
</tr>
<tr>
<td>LIT 132</td>
<td>Library Technical Services</td>
<td>3</td>
</tr>
<tr>
<td>LIT 243</td>
<td>Library Services for Children</td>
<td>3</td>
</tr>
<tr>
<td>LIT 245</td>
<td>Library Services for Young Adults</td>
<td>3</td>
</tr>
<tr>
<td>LIT 247</td>
<td>Library Services for Adults</td>
<td>3</td>
</tr>
<tr>
<td>LIT 299</td>
<td>Library &amp; Information Technology Track Cources</td>
<td>(3)</td>
</tr>
</tbody>
</table>

**Choose a total of 9 hours from the following:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIT 120</td>
<td>Readers’ Advisory Services</td>
<td>3</td>
</tr>
<tr>
<td>LIT 243</td>
<td>Library Services for Children **</td>
<td>3</td>
</tr>
<tr>
<td>LIT 245</td>
<td>Library Services for Young Adults **</td>
<td>3</td>
</tr>
<tr>
<td>LIT 247</td>
<td>Library Services for Adults **</td>
<td>3</td>
</tr>
<tr>
<td>IMD 210</td>
<td>Microsoft Office Applications</td>
<td>3</td>
</tr>
<tr>
<td>LIT 285</td>
<td>History of Libraries</td>
<td>3</td>
</tr>
<tr>
<td>LIN 175</td>
<td>Information Literacy</td>
<td>3</td>
</tr>
<tr>
<td>LIT 299</td>
<td>Selected Topics in Library Information Management <em>(may be repeated for up to 6 hours)</em></td>
<td>1-3</td>
</tr>
</tbody>
</table>

**Subtotal** 21

**Total** 60

### Video Game Design Track - 110801705

*(Offered at BLC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMD/CIT124</td>
<td>Introduction to Game Development</td>
<td>3</td>
</tr>
<tr>
<td>IMD/CIT274</td>
<td>Seminar in Game Development</td>
<td>3</td>
</tr>
<tr>
<td>IMD/CIT221</td>
<td>Computer Graphics</td>
<td>3</td>
</tr>
<tr>
<td>IMD/CIT222</td>
<td>3D Modeling for Video Games</td>
<td>3</td>
</tr>
<tr>
<td>IMD/CIT223</td>
<td>3D Animation for Video Games</td>
<td>3</td>
</tr>
<tr>
<td>IMD/CIT273</td>
<td>Game Production</td>
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**Choose from Video Game Design Track Courses:**

<table>
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<tr>
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<tr>
<td>ENG 203</td>
<td>Business Writing</td>
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<tr>
<td>IMD 180</td>
<td>Intermediate Web Design with Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>IMD 240</td>
<td>Multimedia Development for the Web</td>
<td>3</td>
</tr>
<tr>
<td>IMD 250</td>
<td>Digital Video Editing I</td>
<td>3</td>
</tr>
<tr>
<td>IMD 290</td>
<td>Photography</td>
<td>3</td>
</tr>
<tr>
<td>IMD 128</td>
<td>Raster Design with Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>IMD 127</td>
<td>Vector Design with Illustrator</td>
<td>3</td>
</tr>
<tr>
<td>IMD 210</td>
<td>Microsoft Office Applications</td>
<td>3</td>
</tr>
<tr>
<td>IMD 228</td>
<td>Advanced Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>IMD 294</td>
<td>Seminar in Information Management and Design</td>
<td>3</td>
</tr>
<tr>
<td>IMD 299</td>
<td>Selected Topics in Information Management and Design</td>
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</tr>
<tr>
<td>MGT 282</td>
<td>Principles of Marketing</td>
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**Other Video Game Design Courses approved by Program Coordinator**: 3

**Total** 60

### Certificate

**Library Information Technology - 1108013019**

*(Offered at BLC)*

**Required:**

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>LIT 115</td>
<td>Introduction to Reference Services</td>
<td>3</td>
</tr>
<tr>
<td>LIN 175</td>
<td>Information Literacy</td>
<td>3</td>
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**Students will select one course from each of the following groups:**

**1. Library Procedures**

<table>
<thead>
<tr>
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<th>Credits</th>
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<tbody>
<tr>
<td>LIT 124</td>
<td>Library Administration OR</td>
<td>3</td>
</tr>
<tr>
<td>LIT 132</td>
<td>Library Technical Services</td>
<td>3</td>
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**Total** 15

**2. Library Services**

<table>
<thead>
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<th>Credits</th>
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<tr>
<td>LIT 120</td>
<td>Readers’ Advisory Services</td>
<td>3</td>
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<tr>
<td>LIT 243</td>
<td>Library Services for Children</td>
<td>3</td>
</tr>
<tr>
<td>LIT 245</td>
<td>Library Services for Young Adults</td>
<td>3</td>
</tr>
<tr>
<td>LIT 247</td>
<td>Library Services for Adults</td>
<td>3</td>
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<tr>
<td>LIT 248</td>
<td>Library Services for Preschool Children</td>
<td>3</td>
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<td>LIN 175</td>
<td>Genealogy Services in Libraries</td>
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**Total** 15

**3. Library Information Technology Elective**

<table>
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<tr>
<td>LIT elective</td>
<td>Any LIT course above LIT 115</td>
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**Total** 15

### Digital Video – 1108013049

*(Offered at BLC)*

<table>
<thead>
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<tbody>
<tr>
<td>IMD 128</td>
<td>Raster Design with Adobe Photoshop</td>
<td>3</td>
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<tr>
<td>IMD 250</td>
<td>Digital Video Editing I</td>
<td>3</td>
</tr>
<tr>
<td>IMD 255</td>
<td>Digital Video Editing II</td>
<td>3</td>
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<tr>
<td>IMD 258</td>
<td>Visual Effects for Video</td>
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**Total** 12

### Graphic Design – 1108013029

*(Offered at BLC)*

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<th>Title</th>
<th>Credits</th>
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<tr>
<td>IMD 115</td>
<td>Introduction to Graphic Design</td>
<td>3</td>
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<tr>
<td>IMD 126</td>
<td>Introduction to Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>IMD 127</td>
<td>Vector Design with Adobe Illustrator</td>
<td>3</td>
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<tr>
<td>IMD 128</td>
<td>Raster Design with Adobe Photoshop</td>
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<tr>
<td>IMD 226</td>
<td>Advanced Desktop Publishing</td>
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**Total** 15

### Video Game Design – 1108013059

*(Offered at )*
Health Care Foundations

This certificate will prepare entry-level health care workers with basic health care knowledge and skills in the areas of health care delivery and management, health care communication, basic skills I & II, pharmacology, clinical pathophysiology and medical terminology.

Certificate

Health Care Foundations-Basic - 5139023209
(Offered at ASC, HZC, JFC, SEC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HST 101</td>
<td>Health Care Basic Skills I OR</td>
<td>3</td>
</tr>
<tr>
<td>HST 104</td>
<td>Health Care Basic Skills I with Clinical</td>
<td>(3.5)</td>
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<tr>
<td>HST 102</td>
<td>Health Care Delivery &amp; Management</td>
<td>3</td>
</tr>
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<td>HST 103</td>
<td>Health Care Communication</td>
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<td>AHS 115</td>
<td>Medical Terminology</td>
<td>3</td>
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Health Care Foundations-Intermediate - 5139023219
(Offered at ASC, JFC)

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<td>HST 101</td>
<td>Health Care Basic Skills I OR</td>
<td>3</td>
</tr>
<tr>
<td>HST 104</td>
<td>Health Care Basic Skills I with Clinical</td>
<td>(3.5)</td>
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<tr>
<td>HST 102</td>
<td>Health Care Delivery &amp; Management</td>
<td>3</td>
</tr>
<tr>
<td>HST 103</td>
<td>Health Care Communication</td>
<td>2</td>
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<tr>
<td>AHS 115</td>
<td>Medical Terminology</td>
<td>3</td>
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<tr>
<td>HST 121</td>
<td>Pharmacology</td>
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<td>HST 122</td>
<td>Clinical Pathophysiology</td>
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<td>HST 123</td>
<td>Health Care Basic Skills II</td>
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<tr>
<td><strong>Subtotal</strong></td>
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<td><strong>18-18.5</strong></td>
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Health Care Specialist

This certificate prepares students for a variety of Health IT workforce roles across hospitals, clinics, and other healthcare organizations that are integral to the implementation and management of electronic health information systems. The knowledge gained through completion of this certificate can be used to gain employment locally, regionally, and nationally.

Students will select a certificate track of Practice Workflow/Redesign Specialist, Clinician/Practitioner Consultant, Implementation Manager, Technical Software Support Specialist, Implementation Support Technician, or Trainer Specialist, all of which map to AHIMA’s (American Health Information Management Association) Certified Healthcare Technology Specialist (CHTS), and CompTIA’s HIT Technician and Pro Certifications.

Certificate

Health Care Specialist – 5107073079
(Offered at HZC, MDC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CIT 105</td>
<td>Introduction to Computers</td>
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<td>AHS 115</td>
<td>Medical Terminology</td>
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<td>Basic Anatomy and Physiology with Lab</td>
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Clinician/Practitioner Consultant Track – 510707302
(Offered at HZC, MDC)

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<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
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<td>Health IT Terminology</td>
<td>1</td>
</tr>
<tr>
<td>HCS 150</td>
<td>Health IT Analysis &amp; Quality</td>
<td>2</td>
</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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<td><strong>Total</strong></td>
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Implementation Manager Track – 510707303
(Offered at HZC, MDC)

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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HCS 110</td>
<td>Culture of Healthcare</td>
<td>1</td>
</tr>
<tr>
<td>HCS 125</td>
<td>History in Healthcare</td>
<td>1</td>
</tr>
<tr>
<td>HCS 145</td>
<td>Health IT Terminology</td>
<td>1</td>
</tr>
<tr>
<td>HCS 150</td>
<td>Health IT Analysis &amp; Quality</td>
<td>2</td>
</tr>
<tr>
<td>HCS 280</td>
<td>Project Management &amp; Teams</td>
<td>1</td>
</tr>
<tr>
<td>HCS 290</td>
<td>Leadership in Health IT</td>
<td>1</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, MDC)

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<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HCS 145</td>
<td>Health IT Terminology</td>
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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>
<td>1</td>
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<td><strong>Total</strong></td>
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Practice Workflow/Redesign Specialist Track – 510707301
(Offered at HZC, MDC)

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<thead>
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<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 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>
<td>1</td>
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<td><strong>Total</strong></td>
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Technical Software Support Specialist Track – 510707304
(Offered at HZC, MDC)

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<th>Title</th>
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<tbody>
<tr>
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<td>Health IT Terminology</td>
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<td>HCS 200</td>
<td>Health IT Computer Systems</td>
<td>1</td>
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<tr>
<td>HCS 210</td>
<td>Implementing Health IT Systems</td>
<td>3</td>
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<tr>
<td>HCS 220</td>
<td>Working with HIT Systems</td>
<td>1</td>
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<td>HCS 230</td>
<td>Vendor-Specific Systems</td>
<td>2</td>
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<td>HCS 281</td>
<td>Health IT Customer Service</td>
<td>1</td>
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<td>HCS 295</td>
<td>Health IT Capstone</td>
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<td><strong>Total</strong></td>
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Training Specialist Track – 510707306
(Offered at HZC, MDC)

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<tbody>
<tr>
<td>HSC 110</td>
<td>Public Health Care in the US</td>
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<tr>
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<td>Culture of Healthcare</td>
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<tr>
<td>HCS 165</td>
<td>Health IT Terminology</td>
<td>1</td>
</tr>
<tr>
<td>HCS 180</td>
<td>Usability &amp; Human Factors</td>
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<td>HCS 260</td>
<td>Health IT Instructional Design</td>
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<td>HCS 281</td>
<td>Health IT Customer Service</td>
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<td>HCS 295</td>
<td>Health IT Capstone</td>
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<td><strong>Total</strong></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 – 4604017019**

*(Offered at OWC)*

**General Education Courses**

<table>
<thead>
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<th>Course Code</th>
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<td>Writing I</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra OR</td>
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<tr>
<td>MAT 126</td>
<td>Technical Algebra and Trigonometry OR</td>
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<tr>
<td>MAT 146</td>
<td>Contemporary College Math</td>
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<tr>
<td>PHI 110</td>
<td>Medical Ethics</td>
<td>3</td>
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<tr>
<td>HFL 100</td>
<td>Introduction to Healthcare Facility Management</td>
<td>3</td>
</tr>
<tr>
<td>HFL 110</td>
<td>Introduction to Healthcare Industry</td>
<td>2</td>
</tr>
<tr>
<td>HFL 120</td>
<td>Infection Control and Prevention</td>
<td>2</td>
</tr>
<tr>
<td>HFL 130</td>
<td>Compliance, Codes, and Standards I</td>
<td>3</td>
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<td>HFL 140</td>
<td>Maintenance and Operations I</td>
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<td>HFL 150</td>
<td>Planning, Design, and Construction I</td>
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<td>CHE 175</td>
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<td>HFL 270</td>
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<td>BAS 287</td>
<td>Supervisory Management OR</td>
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<td>BAS 289</td>
<td>Operations Management</td>
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<td>BAS 212</td>
<td>Introduction to Financial Management</td>
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<td>ECO 201</td>
<td>Principles of Microeconomics</td>
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<tr>
<td>BAS 288</td>
<td>Personal and Organizational Leadership</td>
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**Total Credits** 62-63

**Certificate**

**Healthcare Facilities Foundation - 4604013119**

*(Offered at OWC)*

<table>
<thead>
<tr>
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<th>Course Title</th>
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</tr>
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<td>HFL 110</td>
<td>Introduction to Healthcare Industry</td>
<td>2</td>
</tr>
<tr>
<td>HFL 120</td>
<td>Infection Control and Prevention</td>
<td>2</td>
</tr>
<tr>
<td>HFL 130</td>
<td>Compliance, Codes, and Standards I</td>
<td>3</td>
</tr>
<tr>
<td>HFL 140</td>
<td>Maintenance and Operations I</td>
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<td>HFL 150</td>
<td>Planning, Design, and Construction I</td>
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<td>Maintenance and Operations I</td>
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<td>Planning, Design, and Construction I</td>
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<td>HFL 140</td>
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<td>HFL 150</td>
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<td>HFL 140</td>
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<td>HFL 140</td>
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<tr>
<td>HFL 150</td>
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</tr>
</tbody>
</table>

**Total Credits** 16

**Health Information Technology**

This program prepares the graduate to take an active role in the field of health information management. Graduates will interact with physicians, health professionals, and financial and administrative staffs to ensure the protection of information systems. Graduates will help determine health information budgets, resources and policies, utilizing current and accurate data. The curriculum includes course work in the supporting sciences and general education areas. Classroom instruction is supplemented with learning experiences in the campus laboratory and in area health care facilities. Students enrolled in the Health Information Program are required to achieve a minimum grade of “C” in each course in the program.

Health Information Technicians are employed in hospitals, medical clinics, nursing homes, other health care facilities and industry. Graduates with the AAS degree are qualified to write the American Health Information Management Association’s / Commission on Certification for Health Informatics and Information Management (CAHIIM) Registered Health Information Technician examination and the CCA coding examination. Graduates of the medical records coding specialist certificate may write the American Health Information Management Association’s CCA coding examination and the American Academy of Professional Coders’ CPC-A (and others as qualified) coding examinations.

For students completing the AAS in Health Information Technology, documentation of computer literacy as defined by KCTCS is required prior to enrolling in the first HIT course.

The Associate in Applied Science Degree Health Information Technology is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM) at each college. Additional information may be found at CAHIIM’s website URL: [http://cahiim.org](http://cahiim.org)

**Associate in Applied Science**

**Health Information Technology - 5107077019**

*(Offered at GTM, HZC, JFC)*

**General Education Requirements:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>ENG 101</td>
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<td>BIO 135</td>
<td>Human Anatomy and Physiology with laboratory OR</td>
<td>4</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy and Physiology I AND</td>
<td>(4)</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy and Physiology II</td>
<td>(4)</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Math OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra</td>
<td>(3)</td>
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<td>(3)</td>
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<td>SOC 101</td>
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<td>Heritage/Humanities</td>
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**Total Credits** 16-20
### Technical Course Requirements:

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<tr>
<td>OST 105</td>
<td>Introduction to Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek or Latin OR</td>
<td>3</td>
</tr>
<tr>
<td>MIT 103</td>
<td>Medical Office Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology</td>
<td>3</td>
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<tr>
<td>HIT 100</td>
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<td>HIT 105</td>
<td>Patho/Pharm for Health Information Professionals</td>
<td>4</td>
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<tr>
<td>CIT 130</td>
<td>Productivity Software OR</td>
<td>3</td>
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<tr>
<td>OST 240</td>
<td>Software Integration</td>
<td>3</td>
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<td>HIT 109</td>
<td>Clinical Classification Systems I</td>
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<tr>
<td>HIT 110</td>
<td>Legal/Ethical Issues in Health Information</td>
<td>2</td>
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<tr>
<td>HIT 112</td>
<td>Reimbursement Methodologies</td>
<td>3</td>
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<tr>
<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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<tr>
<td>HIT 205</td>
<td>Performance Improvement in Health Information</td>
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<tr>
<td>HIT 207</td>
<td>Clinical Classification Systems III</td>
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<tr>
<td>HIT 211</td>
<td>Health Care Management &amp; Statistics</td>
<td>3</td>
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<tr>
<td>HIT 215</td>
<td>Clinical Practicum OR</td>
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<tr>
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<td>HIT 2152</td>
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**NOTE:** BIO 137 and BIO 139 are required at JCTC.

### Certificate

**HIT Coding- 5107073089**

*(Offered at GTW, HZC, JFC)*

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<td>MIT 103</td>
<td>Medical Office Terminology OR</td>
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<tr>
<td>AHS 115</td>
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</tr>
<tr>
<td>BIO 135</td>
<td>Human Anatomy and Physiology with laboratory OR</td>
<td>4</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy and Physiology I AND</td>
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<td>BIO 139</td>
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<tr>
<td>HIT 105</td>
<td>Patho/Pharm for Health Information Professionals</td>
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<td>HIT 109</td>
<td>Clinical Classification Systems I</td>
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<td>HIT 110</td>
<td>Legal/Ethical Issues in Health Information</td>
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<td>HIT 112</td>
<td>Reimbursement Methodologies</td>
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<tr>
<td>HIT 202</td>
<td>Clinical Classification Systems II</td>
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<td>HIT 207</td>
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<td>HIT 215</td>
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<tr>
<td>HIT 2151</td>
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<tr>
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### Release of Information Data Specialist – 5107073099

*(Offered at GTW, HZC, JFC)*

<table>
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</tr>
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<tbody>
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<td>Introduction to Health Information Technology</td>
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<td>HIT 110</td>
<td>Legal/Ethical Issues in Health Information</td>
<td>2</td>
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<tr>
<td>BIO 135</td>
<td>Human Anatomy and Physiology with laboratory OR</td>
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<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I AND</td>
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<td>BIO 139</td>
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<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek or Latin OR</td>
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<td>MIT 103</td>
<td>Medical Office Terminology OR</td>
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### Associate in Applied Science

**Health Science Technology – 510007019**

*(Offered at ASC, BSC, BLJ, ELC, GTW, HEC, HPC, JFC, MDC, WKC)*

### General Education

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
<td>MAT 150</td>
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</tr>
<tr>
<td>MAT 110</td>
<td>Applied Math OR</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>FYE 105</td>
<td>Achieving Academic Success</td>
<td>3</td>
</tr>
<tr>
<td>BIO 135</td>
<td>Basic Human Anatomy OR</td>
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</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I AND</td>
<td>4</td>
</tr>
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<tr>
<td>PSY 110</td>
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<td><strong>Social/Behavioral Sciences</strong></td>
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<td>3</td>
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</table>

# Digital Literacy must be demonstrated by computer exam or successfully completing a digital literacy course.

**Health Science Technical Course selection must result in final attainment of a minimum of three (3) certificate credentials.**

Students may be able to earn certificates that are already present in other curricula, including but not limited to:

- Nursing Assistant
- Advanced Nursing Assistant
- Pharmacy Technician I
- Phlebotomy for the Healthcare Worker
- 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:

<table>
<thead>
<tr>
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<th>Title</th>
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<tbody>
<tr>
<td>AHS 100</td>
<td>EFM 100</td>
</tr>
<tr>
<td>BIO 137</td>
<td>HST 122</td>
</tr>
<tr>
<td>HIT 105</td>
<td>EFT 101</td>
</tr>
<tr>
<td>HIT 109</td>
<td>HST 123</td>
</tr>
<tr>
<td>BIO 133</td>
<td>HST 101</td>
</tr>
<tr>
<td>BIO 225</td>
<td>NAA 102</td>
</tr>
<tr>
<td>AHS 201</td>
<td>HIT 103</td>
</tr>
<tr>
<td>HIT 205</td>
<td>PLW 110</td>
</tr>
<tr>
<td>HIT 200</td>
<td>PLW 140</td>
</tr>
<tr>
<td>AHS 203</td>
<td>COM 181</td>
</tr>
<tr>
<td>HIT 203</td>
<td>HST 104</td>
</tr>
<tr>
<td>BAS 120</td>
<td>PHY 152</td>
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<tr>
<td>COM 252</td>
<td>TEC 200</td>
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<tr>
<td>HIT 100</td>
<td>PHY 171</td>
</tr>
<tr>
<td>WPP 200</td>
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</table>
### Heavy Equipment Operation

Designed to instruct students in the safe operation of heavy equipment, e.g., bulldozers, backhoes, front-end loaders, hydraulic excavators and graders. Instruction in digging, ditching, slopeing, stripping, grading, backfilling, clearing trees and rubble, and foundation excavating is provided as well as instruction in the proper care and maintenance of equipment.

**Diploma**

**Operating Engineer - 4902024019**  
*(Offered at HZC)*

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>HEO 125</td>
<td>Special Problems I</td>
<td>3</td>
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<tr>
<td>HEO 201</td>
<td>Heavy Equipment Operating II</td>
<td>6</td>
</tr>
<tr>
<td>HEO 251</td>
<td>Heavy Equipment Operating III</td>
<td>6</td>
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<tr>
<td>HEO 125</td>
<td>Special Problems II</td>
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</tr>
<tr>
<td>HEO 225</td>
<td>Special Problems II</td>
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<td><strong>Total Technical Credits</strong></td>
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**Certificates**

**Backhoe Operator - 4902023069**  
*(Offered at HZC, WKC)*

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<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HEO 110</td>
<td>Power Shovel Backhoe Operator</td>
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<tr>
<td>DIT 103</td>
<td>Preventive Maintenance Lab</td>
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</tr>
<tr>
<td>HEO 125</td>
<td>Special Problems I</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
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**Bulldozer Operator - 4902023029**  
*(Offered at HZC, WKC)*

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<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>HEO 111</td>
<td>Bulldozer Operator</td>
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<tr>
<td>DIT 103</td>
<td>Preventive Maintenance Lab</td>
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</tr>
<tr>
<td>HEO 125</td>
<td>Special Problems I</td>
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<tr>
<td><strong>Total Credits</strong></td>
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**Front-End Loader Operator - 4902023079**  
*(Offered at HZC, WKC)*

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<td>HEO 107</td>
<td>Utility Tractor Loader Operator</td>
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<td>DIT 103</td>
<td>Preventive Maintenance Lab</td>
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</tr>
<tr>
<td>HEO 125</td>
<td>Special Problems</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
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</table>

### 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)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>ACH 120</td>
<td>Theory and History of Architecture I</td>
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</tr>
<tr>
<td>HIS 240</td>
<td>History of Kentucky</td>
<td>3</td>
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<tr>
<td>HPT 100</td>
<td>Introduction to Historic Preservation</td>
<td>3</td>
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<tr>
<td>HPT 101</td>
<td>Introduction to Historic Preservation Lab</td>
<td>2</td>
</tr>
<tr>
<td>ISX 100</td>
<td>Industrial Safety OR</td>
<td>3</td>
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<td>ISX 101</td>
<td>Introduction to Industrial Safety</td>
<td>(3)</td>
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**Technical Electives**: Select a minimum of 8 credit hours

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<th>Course Title</th>
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<td>Traditional Woodworking</td>
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</tr>
<tr>
<td>HPT 200</td>
<td>Masonry Repointing and Repair</td>
<td>2</td>
</tr>
<tr>
<td>HPT 202</td>
<td>Window Restoration and Repair</td>
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<tr>
<td>HPT 204</td>
<td>Roof Restoration and Repair</td>
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</tr>
<tr>
<td>HPT 298</td>
<td>Field Experience Practicum</td>
<td>2</td>
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</tbody>
</table>

### Horticulture

The Horticulture program provides students with knowledge and skills needed for careers in greenhouse, nursery, and landscape operations. Students acquire practical experience in turf and landscape maintenance, design, plant production, and business management.

**Associate in Applied Science**

**Horticulture - 0106017019**

**General Education:**

<table>
<thead>
<tr>
<th>Category</th>
<th>Credits</th>
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<tr>
<td>Natural Sciences</td>
<td>3</td>
</tr>
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<td>Social/Behavioral Sciences</td>
<td>3</td>
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<tr>
<td>Written Communication</td>
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**Technical Core:**

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<td>HRT 120</td>
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<td>HRT 160</td>
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<td>HRT 130</td>
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*Must meet computer/digital literacy requirement.

**Business Track - 010601702**

<table>
<thead>
<tr>
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<tr>
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<tr>
<td>COED 198</td>
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</tr>
<tr>
<td>ACT 101</td>
<td>Fundamentals of Accounting I</td>
</tr>
<tr>
<td>BAS 200</td>
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<td>BMO 170</td>
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<td>OST 215</td>
<td>Office Procedures</td>
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**Total Business Track Credits** 61-66

**Science Track - 010601701**

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**Total Science Track Credits** 63-68

**Diploma**

**General Education:**

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<td>Area 2</td>
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**Subtotal** 6

**Technical:**

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<tr>
<td>HRT 108</td>
<td>Introduction to Woody Plants</td>
<td>4</td>
</tr>
<tr>
<td>HRT 120</td>
<td>Turf Management OR</td>
<td>4</td>
</tr>
<tr>
<td>HRT 160</td>
<td>Retail Floral Design AND</td>
<td>4</td>
</tr>
<tr>
<td>HRT 161</td>
<td>Retail Floral Design Lab</td>
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</tr>
<tr>
<td>HRT 130</td>
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<td>HRT 131</td>
<td>Landscape Maintenance Lab</td>
<td>2</td>
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<tr>
<td>HRT 210</td>
<td>Landscape Design</td>
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**Subtotal** 30-32

**Total** 36-38

*If computer/digital literacy is met by the competency exam, an additional 3 credit hours of general education or program elective must be taken.

**Ornamental Horticulture - 0106014029** *(Offered at MYC)*

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<tr>
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</thead>
<tbody>
<tr>
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<tr>
<td>COED 198</td>
<td>Practicum</td>
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<td>HRT 104</td>
<td>Introduction to Herbaceous Plants</td>
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<tr>
<td>HRT 108</td>
<td>Introduction to Woody Plants</td>
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<tr>
<td>HRT 110</td>
<td>Nursery Management</td>
</tr>
<tr>
<td>HRT 120</td>
<td>Turf Management OR</td>
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<td>Retail Floral Design AND</td>
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<td>Retail Floral Design Lab</td>
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<tr>
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<tr>
<td>HRT 131</td>
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**Total Credits** 18

**Greenhouse Operations - 0106013029** *(Offered at MYC)*

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<tbody>
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**Total Credits** 6

**Horticulture Sales - 0106013119** *(Offered at MYC)*

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**Total Credits** 12

**Greenhouse Production – 010613019**

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**Total Credits** 12

**Landscape Installation - 0106013049** *(Offered at MYC)*

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**Total Credits** 12
Landscape Planning - 0106013059  
(Offered at MYC)

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Lawn Maintenance - 0106013069  
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Nursery Operations - 0106013089  
(Offered at MYC)

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<td>HRT 110</td>
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Nursery Production - 0106013079  
(Offered at MYC)

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<td>HRT 110</td>
<td>Nursery Management</td>
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**Human Services**

This program prepares individuals for entry level positions in agencies and institutions which provide social, community, educational and mental health services. The curriculum provides an opportunity for the student to develop the knowledge and skills necessary for entry level employment. Included in the curriculum is a core of human services courses, general education courses, and technical courses with a specific human services emphasis. Application of human services principles and skills is provided through a clinical experience in an appropriate setting.

Upon completion of the program the graduate is prepared to seek employment in various areas which may include child care facilities, mental health settings, chemical dependency settings, hospitals, educational institutions, correctional facilities, geriatric settings, child and youth centers, and social service agencies.

Students obtain a “C” or better in all core classes (HMS 101, HMS 102, HMS 103, HMS 104 and (HMS 248 OR HMS 251) and also in the two technical courses that have been selected to complete the core requirements.

**Associate in Applied Science**

Human Services- 4400007000  
(Offered at BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, SEC)

**General Education:**

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<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
<td>3</td>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</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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<tr>
<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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<tr>
<td>Quantitative Reasoning course</td>
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**Technical Core:**

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<td>Introduction to Computers OR</td>
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<tr>
<td>HMS 101</td>
<td>Human Services Survey</td>
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<tr>
<td>HMS 102</td>
<td>Values of Human Services in a Contemporary Society</td>
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</tr>
<tr>
<td>HMS 103</td>
<td>Theories and Techniques in Human Services</td>
<td>3</td>
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<td>HMS 104</td>
<td>Group Dynamics for Human Services</td>
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<tr>
<td>HMS 248</td>
<td>Foundational Skills in Para-Professional Practice OR</td>
<td>3</td>
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<tr>
<td>HMS 251</td>
<td>Clinical Practice in Human Services OR</td>
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**Total Credits**  

**60**

**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>
<td>3</td>
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<tr>
<td>FAM 253</td>
<td>Human Sexuality: Development, Behavior and Attitudes</td>
<td>3</td>
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<tr>
<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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<tr>
<td>HMS/SWK 211/255</td>
<td>Introduction to Addictions</td>
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<tr>
<td>HMS/SWK 212/260</td>
<td>Crisis Intervention</td>
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<td>HMS/SWK 220</td>
<td>Cultural Diversity in Human Services</td>
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<tr>
<td>HMS/SWK 235/250</td>
<td>Teaching Persons with Mental Retardation</td>
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<td>HMS 240</td>
<td>Service Coordination for Human Services Professionals</td>
<td>3</td>
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<tr>
<td>HMS 245</td>
<td>Psychiatric Mental Health Technician</td>
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<tr>
<td>HMS 265</td>
<td>Working with Disabilities in Human Services</td>
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<td>HMS 299</td>
<td>Special Topics in Human Services</td>
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<tr>
<td>IEC 130</td>
<td>Early Childhood Development</td>
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<td>IEC 200</td>
<td>Child Guidance</td>
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<tr>
<td>MNA 100</td>
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<td>PSY 185</td>
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<tr>
<td>PSY 230</td>
<td>Psychosocial Aspects of Death and Dying</td>
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<td>American Sign Language I.</td>
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<td>SOC 230</td>
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<td>SWK 124</td>
<td>Introduction to Social Services</td>
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<td>SWK 269</td>
<td>Juvenile Delinquency</td>
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<td>SWK 275</td>
<td>The Family</td>
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<tr>
<td>SWK 280</td>
<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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<tr>
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<td>Group Preparation and Selection for Foster and Adoptive Parents</td>
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<td>SWK 121</td>
<td>Child Sexual Abuse for Foster and Adoptive Parents</td>
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**Eastern Kentucky University Courses:**

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<td>Foundations of Youth Work</td>
<td>3</td>
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<tr>
<td>COR 423*</td>
<td>Reclaiming Our Prodigal Sons and Daughters</td>
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<tr>
<td>COR 423*</td>
<td>Life Space Crisis Intervention</td>
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* Special Topics course at EKU; different section numbers indicate different topic content

**Eastern Kentucky University Courses:**

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### Certificates

**Aging Services – 4400003049**  
*(Offered at BSC, BLC, ELC, HEC, HPC, HZC, MDC, SEC)*

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**Total Credits 18**

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**Client Service Coordinator – 4400003079**  
*(Offered at BSC, ELC, HZC, HPC, MDC)*

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<tr>
<td>HMS 251</td>
<td>3</td>
</tr>
<tr>
<td>SWK 275</td>
<td>3</td>
</tr>
<tr>
<td>FAM 252</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits 24**

---

**Direct Support Work - 4400003039**  
*(Offered at BSC, BLC, ELC, HZC, MDC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMS 102</td>
<td>3</td>
</tr>
<tr>
<td>HMS 265</td>
<td>3</td>
</tr>
<tr>
<td>MNA 100</td>
<td>3</td>
</tr>
<tr>
<td>NAA 100</td>
<td>3</td>
</tr>
<tr>
<td>SWK 275</td>
<td>3</td>
</tr>
<tr>
<td>FAM 252</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits 24**

---

**Electives – choose one course from the following list:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMS/SWK 235/250</td>
<td>3</td>
</tr>
<tr>
<td>SWK 180</td>
<td>3</td>
</tr>
<tr>
<td>PSY 230</td>
<td>3</td>
</tr>
<tr>
<td>HMS/SWK 200</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits 15**

---

**Psychiatric Mental Health Technician – 4400003069**  
*(Offered at BSC, BLC, ELC, HZC, HPC, MDC, SEC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMS 101</td>
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</tr>
<tr>
<td>HMS 102</td>
<td>3</td>
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<tr>
<td>HMS 103</td>
<td>3</td>
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<tr>
<td>HMS 104</td>
<td>3</td>
</tr>
<tr>
<td>HMS 210</td>
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<tr>
<td>MNA 100</td>
<td>3</td>
</tr>
<tr>
<td>NAA 100</td>
<td>3</td>
</tr>
<tr>
<td>HMS 245</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits 27**

---

**Industrial Chemical Technology**

This program is designed based on North American Process Technician Alliance (NAPTA) principles for process technicians. Basic knowledge in the areas of environmental health and safety, quality control, chemistry, process equipment, process operations, troubleshooting, and workplace skills helps ensure graduates enter the workforce with the fundamentals in operations of a modern chemical facility.

**Associate in Applied Science**

**Industrial Chemical Technology - 4103017019**  
*(Offered at JFC)*

**General Education**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENG 101</td>
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</tr>
<tr>
<td>CHE 140</td>
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<tr>
<td>CHE 145</td>
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<td>MAT 150</td>
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</tr>
<tr>
<td>IMP 142</td>
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</tr>
<tr>
<td>IMP 144</td>
<td>3</td>
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</table>

**Total Credits 24**

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**Technical Electives:**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>IMP 211</td>
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</tr>
<tr>
<td>IMP 212</td>
<td>3</td>
</tr>
<tr>
<td>IMP 220</td>
<td>3</td>
</tr>
<tr>
<td>HMS 265</td>
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</tr>
<tr>
<td>SWK 180</td>
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</tr>
<tr>
<td>SWK 276</td>
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</tr>
<tr>
<td>SWK 281</td>
<td>3</td>
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</tbody>
</table>

**Total Credits 24**

---

**Recovery Coach – 4400003089**  
*(Offered at BSC, BLC, ELC, HZC, HPC, MDC, SEC, WKC)*

<table>
<thead>
<tr>
<th>Course</th>
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</tr>
</thead>
<tbody>
<tr>
<td>HMS 101</td>
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</tr>
<tr>
<td>HMS 104</td>
<td>3</td>
</tr>
<tr>
<td>HMS 210</td>
<td>3</td>
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<tr>
<td>HMS/SWK 211/255</td>
<td>3</td>
</tr>
<tr>
<td>HMS/SWK 212/260</td>
<td>3</td>
</tr>
<tr>
<td>SWK 275</td>
<td>3</td>
</tr>
<tr>
<td>FAM 252</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits 24**

---

**Associate in Applied Science**

**Industrial Chemical Technology - 4103017019**  
*(Offered at JFC)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>AFT 110</td>
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<tr>
<td>AFT 142</td>
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<tr>
<td>ICT 186</td>
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<td>ICT 192</td>
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<td>ICT 196</td>
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<td>ICT 200</td>
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<td>ICT 230</td>
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<td>ISX 101</td>
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<td>ITE 250</td>
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<td>QMS 101</td>
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<tr>
<td>PHY 162</td>
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<tr>
<td>ELT 295</td>
<td>1-2</td>
</tr>
<tr>
<td>COE 199</td>
<td>1-4</td>
</tr>
</tbody>
</table>

**Total Credits 61-67**
The Certificate program in Insurance and Risk Management is a four-course (12 credit hour) credential. Students will learn the foundations of insurance production and multiple lines insurance production. Students will also master the fundamentals of operating an agency and managing sales. Completers of this certificate program will be eligible to sit for the national Accredited Advisor in Insurance (AAI) Certification exam.

**Certificate**

**Insurance and Risk Management – 5217013019**

- INS 100 Introduction to Insurance and Risk Management ............................................................ 3
- INS 181 Foundations of Insurance Production .............................................................................. 3
- INS 182 Multiple Lines Insurance Production .............................................................................. 3
- INS 183 Agency Operations and Sales Management ...................................................................... 3

Total Credits 12

**Integrated Engineering Technology**

The Integrated Engineering Technology Program offers students the opportunity to build a career maintaining integrated manufacturing systems found in advanced manufacturing, with an emphasis on automotive manufacturing. The program leads students through a mechatronics approach to maintaining and troubleshooting highly-automated, complex manufacturing systems that include programmable logic controllers, robots, various types of drives, sensors, photoeyes, and electrohydraulics and electropneumatics. Graduates will be able to work as maintenance technicians in most manufacturing settings, particularly manufacturing settings related to the automotive industry.

**Associate in Applied Science**

**Integrated Engineering Technology – 1442017019**

- 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
- Preventive Maintenance .................................................................................................... 2
- Blueprint Reading/Schematics ......................................................................................... 2
- Basic Electricity/Electronics .............................................................................................. 3
- Mechanical Drive Systems ................................................................................................. 5
- Safety .................................................................................................................................... 3
- Welding and Fabrication ...................................................................................................... 4
- Machine Tool Operations .................................................................................................. 4
- Electrohydraulics/Pneumatics .............................................................................................. 6
- Programmable Logic Controllers ....................................................................................... 5
- Robot Maintenance ................................................................................................................ 4
- Controls and Instrumentation ............................................................................................. 5

Subtotal 46

Total Credits 64
Interdisciplinary Early Childhood Education

The Interdisciplinary Early Childhood Education Program is designed to provide students an understanding of the cognitive, physical, social and emotional development for working with young children. Opportunities to apply this knowledge in practical experiences are incorporated in the curriculum. Curriculum topics include, but are not limited to, developmental ages and stages, health and safety, curriculum planning, assessment and family involvement. Employment opportunities are available in public and private preschools, early care educational settings, early intervention programs, Head Start, hospitals, campus child development centers, rehabilitation clinics and recreation centers.

Students must earn a “C” or higher in each of the IEC courses in order to graduate.

Associate in Applied Science

Interdisciplinary Early Childhood Education - 1907097019

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

<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>COM 181 Basic Public Speaking OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252 Introduction to Interpersonal Communications</td>
<td>3</td>
</tr>
<tr>
<td>PSY 110 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Heritage/ Humanities</td>
<td>3-4</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Quantitative Reasoning</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>21-22</strong></td>
</tr>
</tbody>
</table>

Technical Core Courses

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

IEC 101 Orientation to Early Childhood Education ........................................... 3
IEC 102 Foundations of Early Childhood Education ........................................... 3
IEC 130 Early Childhood Development .................................................................. 3
IEC 170 Observation & Assessment ........................................................................ 3
IEC 180 Approaches to Early Childhood Education Curriculum ........................... 3
IEC 200 Child Guidance ......................................................................................... 3
IEC 216 Literacy and Language in IECE ................................................................. 3
IEC 221 Creative Expressions in IECE ................................................................. 3
IEC 235 Introduction to Inclusive Education ...................................................... 3
IEC 246 Sciences and Mathematics for IECE ....................................................... 3
IEC 291 IECE Practicum/Cooperative Education .................................................... 3
| **Subtotal** | **33-36** |

Choose 6 hours from the following approved technical support elective courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IEC 210 Families &amp; Communities in Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>IEC 230 Business Administration of ECE Programs OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 200 Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>IEC 240 Administration of Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>IEC 250 School Age Child Care</td>
<td>3</td>
</tr>
<tr>
<td>IEC 260 Infant and Toddler Education and Programming</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>6</strong></td>
</tr>
</tbody>
</table>

Total Credits: 60-64

Certificate

Child Care Assistant - 1907093039

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

Required:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IEC 101 Orientation to Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>IEC 102 Foundations of Early Childhood Education</td>
<td>3</td>
</tr>
</tbody>
</table>
| Any IEC three (3) hour course with the exception of IEC 230, IEC 250, IEC 291, and BAS 200 | 3 
| **Total Credits**                                              | **9**   |

Early Childhood Administrator - 1907093059

(Offered at ASC, BLC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SMCC, WKC)

Option One: Course Work

Required:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IEC 101 Orientation to Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>IEC 102 Foundations of Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>IEC 230 Business Administration of ECE Programs OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 200 Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>IEC 240 Administration of Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

Option Two: With a current CDA Articulated credit for IEC 101 and IEC 102

Required:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IEC 240 Administration of Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>IEC 230 Business Administration of ECE Programs OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 200 Small Business Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits: 12

Diploma

Interdisciplinary Early Childhood Education - 1907094019

(Offered at ASC, BLC, ELC, GTW, HEC, HPC, HZC, MDC, MYC, OWC, SMCC)

Area 1 = Written Communication, Oral Communications, or Heritage/Humanities .................................................................................................................. 3

Area 2 = Social/Behavioral Sciences, or Quantitative Reasoning .................................................................................................................. 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IEC 101 Orientation to Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>IEC 102 Foundations of Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>IEC 130 Early Childhood Development ..................................</td>
<td>3</td>
</tr>
<tr>
<td>IEC 170 Observation &amp; Assessment ........................................</td>
<td>3</td>
</tr>
<tr>
<td>IEC 180 Approaches to Early Childhood Education Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>IEC 200 Child Guidance ................................................................</td>
<td>3</td>
</tr>
<tr>
<td>IEC 216 Literacy and Language in IECE ..................................</td>
<td>3</td>
</tr>
<tr>
<td>IEC 221 Creative Expressions in IECE ...................................</td>
<td>3</td>
</tr>
<tr>
<td>IEC 235 Introduction to Inclusive Education ........................................</td>
<td>3</td>
</tr>
<tr>
<td>IEC 246 Sciences and Mathematics for IECE ..........................</td>
<td>3</td>
</tr>
<tr>
<td>IEC 291 IECE Practicum/Cooperative Education ........................</td>
<td>3</td>
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<tr>
<td><strong>Subtotal</strong></td>
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</tbody>
</table>

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

Choose two of the following approved technical support elective courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>IEC 230 Business Administration of ECE Programs OR ...........</td>
<td>3</td>
</tr>
<tr>
<td>BAS 200 Small Business Management ...........................................</td>
<td>3</td>
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<tr>
<td>IEC 240 Administration of Early Childhood Education .............</td>
<td>3</td>
</tr>
<tr>
<td>IEC 250 School Age Child Care ..................................................</td>
<td>3</td>
</tr>
<tr>
<td>IEC 260 Infant and Toddler Education and Programming ..........</td>
<td>3</td>
</tr>
<tr>
<td>IEC 210 Families &amp; Communities in Early Childhood Education ....</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>6</strong></td>
</tr>
</tbody>
</table>

Total Credits: 45-48

Diploma

Interdisciplinary Early Childhood Education - 1907094019

(Offered at ASC, BLC, ELC, GTW, HEC, HPC, HZC, MDC, MYC, OWC, SMCC)

Area 1 = Written Communication, Oral Communications, or Heritage/Humanities .................................................................................................................. 3

Area 2 = Social/Behavioral Sciences, or Quantitative Reasoning .................................................................................................................. 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IEC 101 Orientation to Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>IEC 102 Foundations of Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>IEC 130 Early Childhood Development ..................................</td>
<td>3</td>
</tr>
<tr>
<td>IEC 170 Observation &amp; Assessment ........................................</td>
<td>3</td>
</tr>
<tr>
<td>IEC 180 Approaches to Early Childhood Education Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>IEC 200 Child Guidance ................................................................</td>
<td>3</td>
</tr>
<tr>
<td>IEC 216 Literacy and Language in IECE ..................................</td>
<td>3</td>
</tr>
<tr>
<td>IEC 221 Creative Expressions in IECE ...................................</td>
<td>3</td>
</tr>
<tr>
<td>IEC 235 Introduction to Inclusive Education ........................................</td>
<td>3</td>
</tr>
<tr>
<td>IEC 246 Sciences and Mathematics for IECE ..........................</td>
<td>3</td>
</tr>
<tr>
<td>IEC 291 IECE Practicum/Cooperative Education ........................</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
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</tr>
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</table>

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

Choose two of the following approved technical support elective courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IEC 230 Business Administration of ECE Programs OR ...........</td>
<td>3</td>
</tr>
<tr>
<td>BAS 200 Small Business Management ...........................................</td>
<td>3</td>
</tr>
<tr>
<td>IEC 240 Administration of Early Childhood Education .............</td>
<td>3</td>
</tr>
<tr>
<td>IEC 250 School Age Child Care ..................................................</td>
<td>3</td>
</tr>
<tr>
<td>IEC 260 Infant and Toddler Education and Programming ..........</td>
<td>3</td>
</tr>
<tr>
<td>IEC 210 Families &amp; Communities in Early Childhood Education ....</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>6</strong></td>
</tr>
</tbody>
</table>

Total Credits: 45-48
Interdisciplinary Early Childhood Education Technical Studies - 1907093019

(Offered at ASC, BLC, ELC, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMCKC)

**Required:**

- IEC 101 Orientation to Early Childhood Education .......................... 3
- IEC 102 Foundations of Early Childhood Education ......................... 3
- IEC 130 Early Childhood Development ........................................ 3
- IEC 170 Observation and Assessment ........................................... 3
- IEC 180 Approaches to Early Childhood Education Curriculum .......... 3
- IEC 200 Child Guidance .......................................................... 3
- IEC 216 Literacy and Language in IECE ........................................ 3
- IEC 221 Creative Expressions in IECE ......................................... 3
- IEC 246 Sciences and Mathematics for IECE ................................. 3
- IEC 235 Introduction to Inclusive Education .................................. 3
- IEC 291 IECE Practicum/Cooperative Education ............................ 3

**Total Credits:** 33

**Kentucky Child Care Provider - 1907093049**

(Offered at ASC, BLC, ELC, GTW, HEC, HZC, JFC, MDC, MYC, OWC, SEC, SMCKC)

*Available Completely Online*

**Required:**

- IEC 101 Orientation to Early Childhood Education .......................... 3

**Total Credits:** 3

**School Age Child Care - 1907093069**

(Offered at ASC, BLC, ELC, GTW, HEC, HZC, JFC, MDC, MYC, OWC, SEC, SMCKC)

**IEC**

- IEC 101 Orientation to Early Childhood Education .......................... 3
- IEC 102 Foundations of Early Childhood Education ......................... 3
- IEC 130 Early Childhood Development ........................................ 3
- IEC 200 Child Guidance .......................................................... 3
- IEC 250 School Age Child Care ............................................... 3

**Total Credits:** 15

Invasive Cardiology

The goal of the Invasive Cardiology Program is to provide a competency-based didactic course with a well-rounded clinical experience. The student will be exposed to and expected to acquire skills, attitudes, and habits that are common to professionals in the medical field. Graduates will be prepared for a professional career as an Invasive Cardiovascular Technologist.

**Certificate**

**Invasive Cardiology – 5109153019**

(Offered at JFC)

- DMS 105 Introduction to Cardiology ............................................ 13
- 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

Life Coach

The International Coach Federation (ICF) defines coaching as “partnering with clients in a thought-provoking and creative process that inspires them to maximize their personal and professional potential.” Coaches help clients develop a compelling vision of the future and an action plan to get there. Coaches use active listening, powerful questioning, and direct communication to enhance learning and address obstacles along the way. This program teaches students the ICF Code of Ethics and Core Competencies that are the standards for the coaching profession today. The Co-Active Coaching model and techniques are taught as part of this program. Students will engage in peer coaching with classmates to learn and practice the coaching competencies and develop their proficiency. A practicum experience provides the opportunity to begin coaching with clients in a workplace setting or as a solopreneur. The program includes five observed coaching sessions with feedback (with at least three having written feedback), and ten hours of mentoring focused on the ICF Core Competencies (seven hours in small group mentoring and three hours of individual mentoring). The program prepares students to apply for the Associate Certified Coach (ACC) credential with the ICF; however, there are additional requirements for the ACC such as passing the ICF Coach Knowledge Assessment (CKA). Visit [https://coachfederation.org/icf-credential/acc-paths](https://coachfederation.org/icf-credential/acc-paths) for more information.

**Certificate**

**Life Coach – 1311013029**

(Offered at )

- SDC 160 Life Coaching .......................................................... 3
- SDC 161 Life Coach Practicum .................................................. 3

**Approved Technical Elective** .................................................. 3

**Total Credits:** 17-20

Choose one from the following approved technical support elective courses:

- BAS 288 Personal and Organizational Leadership ......................... 3
- COM 252 Introduction to Interpersonal Communication* ............. 3
- EAM 252 Introduction to Family Science* .................................. 3
- GEN 140 Development of Leadership* ...................................... 3
- KHP 230 Health and Wellness .................................................. 3
- KHP 150 Personal Health Behavior .......................................... 3
- PSY 180 Human Relations* .................................................... 3
- PSY 182 Human Potential* ..................................................... 3
- SWK 275 The Family* ............................................................ 3

*General Education course: this course can count as a technical elective if not also selected for the Oral Communication or Social Behavioral Science course, above.

(One course cannot fulfill two different requirements.)
Logistics and Operations Management

The Logistics and Operations Management program is designed to teach students about the sourcing, procurement, conversion, and logistics concepts associated with the production and delivery of goods and services.

**Associate in Applied Science**

**Logistics and Operations Management – 5202037019**

*(Offered at WKC)*

**General Education Courses**

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<th>Course</th>
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<td>Social/Behavioral Sciences (Must be a different course from the ECO course selected in the Technical or Support Courses)</td>
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<tr>
<td>COM 181</td>
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<tr>
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**Subtotal** 18

**Technical or Support Courses**

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<td>Managerial Accounting</td>
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<td>Introduction to Business</td>
<td>3</td>
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<td>BAS 256</td>
<td>International Business</td>
<td>3</td>
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<td>BAS 282</td>
<td>Principles of Marketing</td>
<td>3</td>
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<td>BAS 283</td>
<td>Principles of Management OR</td>
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<tr>
<td>BAS 289</td>
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<td>ENG 102</td>
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<td>LOM 101</td>
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<td>LOM 102</td>
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<td>Project Management OR</td>
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**Subtotal** 43-48

**Total Credits** 61-66

*Digital literacy must be demonstrated either by competency exam or by completing an approved digital literacy course.

**May include BAS, QMS, STA or Business and Industry approved courses.

**Certificates**

**International Logistics – 5202033049**

*(Offered at WKC)*

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**Total Credits** 15

**Logistics Management – 5202033019**

*(Offered at WKC)*

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<tr>
<td>BAS 287</td>
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**Total Credits** 15-18

**Logistics Technology – 5202033039**

*(Offered at WKC)*

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<td>LOM 180</td>
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**Total Credits** 12-15

**Supply Chain Management – 5202033029**

*(Offered at MDC, WKC)*

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<td>BAS 289</td>
<td>Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>LOM 100</td>
<td>Introduction to Logistics Management</td>
<td>3</td>
</tr>
<tr>
<td>LOM 101</td>
<td>Transportation</td>
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<td>Supply Chain Management</td>
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**Total Credits** 18

*Digital literacy must be demonstrated either by competency exam or by completing an approved digital literacy course.

**Manufacturing Engineering Technology**

The Manufacturing Engineering Technology degree offers students the opportunity to build a career in advanced manufacturing. It is focused on producing graduates to work as engineering technicians and first-line supervisors in manufacturing firms. The degree provides a broad foundation across many facets of operations management and manufacturing technologies. Graduates will be able to assist in leading projects across multiple disciplines in advanced manufacturing firms. They will possess an understanding of manufacturing operations and possess the interpersonal skills to lead work groups. They will be able to work in almost any manufacturing setting from discrete manufacturing to continuous flow and assembly line operations.

**Associate in Applied Science**

**Manufacturing Engineering Technology – 1506137029**

*(Offered at GW, HZC)*

**General Education**

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<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
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<td>ENG 101</td>
<td>Writing I</td>
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<td>STA 220</td>
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**Subtotal** 24

**Total Credits** 61-66

*Digital literacy must be demonstrated either by competency exam or by completing an approved digital literacy course.

**May include BAS, QMS, STA or Business and Industry approved courses.
### Core

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<td>Statics and Strengths of Materials</td>
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<td>MFG 256</td>
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### Technical Electives

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<td>Personal and Organizational Leadership</td>
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<td>BRX 112</td>
<td>Blueprint Reading for Machinists OR</td>
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<td>CAD 102</td>
<td>Drafting Fundamentals OR</td>
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<td>CAD 112</td>
<td>Engineering Graphics</td>
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<tr>
<td>DFT 152</td>
<td>Intermediate Computer Aided Drafting</td>
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<tr>
<td>EET 154</td>
<td>Electrical Construction I</td>
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<td>EET 155</td>
<td>Electrical Construction I Lab</td>
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<tr>
<td>EET 264</td>
<td>Rotating Machinery</td>
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<td>EET 265</td>
<td>Rotating Machinery Lab</td>
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<td>EET 270</td>
<td>Electrical Motor Controls I</td>
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<td>EET 271</td>
<td>Electrical Motor Controls I Lab</td>
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<td>EET 272</td>
<td>Electrical Motor Controls II</td>
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<td>EET 273</td>
<td>Electrical Motor Controls II Lab</td>
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<tr>
<td>EET 276</td>
<td>Programmable Logic Controllers</td>
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<td>ETT 110</td>
<td>Voice &amp; Data Installer Level I</td>
<td>4</td>
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<td>FPX 100</td>
<td>Fluid Power</td>
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<td>FPX 101</td>
<td>Fluid Power Lab</td>
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<tr>
<td>IMT 150</td>
<td>Maintaining Industrial Equipment I</td>
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<tr>
<td>IMT 151</td>
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<tr>
<td>MFG 145</td>
<td>Manufacturing Processes OR</td>
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<td>CMM 110</td>
<td>Fundamentals of Machine Tool A</td>
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<td>CMM 112</td>
<td>Fundamentals of Machine Tool – B</td>
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<td>CMM 118</td>
<td>Metrology and Control Charts</td>
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<tr>
<td>CMM 130</td>
<td>Manual Programming</td>
<td>3</td>
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<tr>
<td>CMM 132</td>
<td>CAD/CAM/CNC</td>
<td>3</td>
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<tr>
<td>MFG 256</td>
<td>Production Management</td>
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<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
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<td>QMS 220</td>
<td>Quality Audits</td>
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**Total Credits**: 63-67

A minimum of fourteen (14) credit hours must be taken from the approved technical elective list. Other courses may be taken with the approval of the program coordinator.

### Certificates

#### Enhanced Operator I – 1506133129

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<td>ISX 1001</td>
<td>Safety &amp; Universal Precaution</td>
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<td>MFG 175</td>
<td>Lean Operations</td>
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#### Enhanced Operator II – 1506133139

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#### Fundamentals of Mechatronics - 1500003219

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#### Integrated Manufacturing Technologies - 1506133069

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<td>IMT 151</td>
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<td>EET 273</td>
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<td>EET 276</td>
<td>Programmable Logic Controllers</td>
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<tr>
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<tr>
<td>MFG 145</td>
<td>Manufacturing Processes OR</td>
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<td>Metrology and Control Charts</td>
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<td>Manual Programming</td>
<td>3</td>
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<td>CMM 132</td>
<td>CAD/CAM/CNC</td>
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**Total Credits**: 19

### Operations Management - 5202013369

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<td>Basic Public Speaking OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
<td>(3)</td>
</tr>
<tr>
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<td><strong>Subtotal</strong></td>
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### Core

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
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<tr>
<td>BAS 287</td>
<td>Supervisory Management OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 288</td>
<td>Personal and Organizational Leadership</td>
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</tr>
<tr>
<td>MFG 175</td>
<td>Lean Operations</td>
<td>2</td>
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<tr>
<td>CMM 118</td>
<td>Metrology and Control Charts</td>
<td>3</td>
</tr>
<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
</tr>
<tr>
<td>BAS 289</td>
<td>Operations Management OR</td>
<td>3</td>
</tr>
<tr>
<td>MFG 256</td>
<td>Production Management</td>
<td>3</td>
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**Total Credits**: 12

### Quality Control - 1506133049

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<thead>
<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>3</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
<td>(3)</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra</td>
<td>3</td>
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### General Education

<table>
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<th>Course Title</th>
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<tbody>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
<td>3</td>
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<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communications</td>
<td>(3)</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra</td>
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### Core

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BRX 112</td>
<td>Blueprint Reading for Machinists OR</td>
<td>4</td>
</tr>
<tr>
<td>BRX 120</td>
<td>Basic Blueprint Reading OR</td>
<td>4</td>
</tr>
<tr>
<td>CAD 102</td>
<td>Drafting Fundamentals OR</td>
<td>(4)</td>
</tr>
<tr>
<td>CAD 112</td>
<td>Engineering Graphics</td>
<td>(4)</td>
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<tr>
<td>CMM 118</td>
<td>Metrology and Control Charts</td>
<td>3</td>
</tr>
<tr>
<td>QMS 101</td>
<td>Introduction to Quality Systems</td>
<td>3</td>
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<tr>
<td>QMS 220</td>
<td>Quality Audits</td>
<td>3</td>
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<tr>
<td>STA 220</td>
<td>Statistics OR</td>
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<td>QMS 240</td>
<td>Statistics for Quality I (if ST 291 is not taken in the core)</td>
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**Total**: 21-22
Manufacturing Industrial Technology

Two programs are offered under the broader heading of MIT. They are Electrical Technology and Industrial Maintenance Technology

MIT: Electrical Technology

The Electrical Technology Program focuses on preparing students for various entry-level electrical positions in industry and the building trades. The study of electrical theory in the classroom and the practical application of that theory in labs provide the foundation of this program. This program is versatile in offering different tracks within the Associate of Applied Science degree. A variety of certificates and diplomas serve as pathways to the AAS degree tracks or as meeting specific training needs.

Students enrolled in the Electrical Technology program are required to achieve a minimum grade of “C” in the technical core and in those courses selected as technical electives.

Associate in Applied Science

Electrical Technology - 4603027039

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

General Education:

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<th>Course</th>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
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<td>MAT 116</td>
<td>Technical Mathematics OR</td>
<td>3</td>
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<tr>
<td>MAT 126</td>
<td>Technical Algebra &amp; Trigonometry OR</td>
<td>(3)</td>
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<td></td>
<td>Natural Sciences</td>
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<td>Social/Behavioral Sciences</td>
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Technical Core:

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<tr>
<td>ELT 110</td>
<td>Circuits I OR</td>
<td>5</td>
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<tr>
<td>EET 119</td>
<td>Basic Electricity</td>
<td>(5)</td>
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<tr>
<td></td>
<td>Approved Course(s) from Specific Track Technical</td>
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<tr>
<td>EET 250</td>
<td>National Electric Code</td>
<td>4</td>
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<tr>
<td>EET 264</td>
<td>Rotating Machinery AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 265</td>
<td>Rotating Machinery Lab AND</td>
<td></td>
</tr>
<tr>
<td>EET 270</td>
<td>Electrical Motor Controls I AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 271</td>
<td>Electrical Motor Controls I Lab OR</td>
<td></td>
</tr>
<tr>
<td>EET 268</td>
<td>Rotating Machinery and Electrical Motor Controls I AND</td>
<td>(3)</td>
</tr>
<tr>
<td>EET 269</td>
<td>Rotating Machinery and Electrical</td>
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<tr>
<td>EET 266</td>
<td>Rotating Machinery and Transformers AND</td>
<td>(3)</td>
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<td>EET 267</td>
<td>Rotating Machinery and Transformers Lab</td>
<td>(3)</td>
</tr>
<tr>
<td>EET 127</td>
<td>Electrical Capstone</td>
<td>1</td>
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<tr>
<td>Digital Literacy OR</td>
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<td>(3)</td>
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<tr>
<td>If any student successfully tests out of Computer/Digital Literacy he/she must take an additional Technical course approved by the Electrical Program Coordinator</td>
<td>(3)</td>
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NOTE: Digital Literacy must be demonstrated either by competency exam or by completing a digital literacy course.

Automated Industrial Controls Technician Track – 460302704

(Offered at)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tr>
<td>EET 272</td>
<td>Electrical Motor Controls II</td>
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<tr>
<td>EET 273</td>
<td>Electrical Motor Controls II Lab</td>
<td>2</td>
</tr>
<tr>
<td>EET 276</td>
<td>Programmable Logic Controllers</td>
<td>2</td>
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<tr>
<td>EET 277</td>
<td>Programmable Logic Controllers Lab</td>
<td>2</td>
</tr>
<tr>
<td>FPX 100</td>
<td>Fluid Power AND</td>
<td>3</td>
</tr>
<tr>
<td>FPX 101</td>
<td>Fluid Power LAB OR</td>
<td>2</td>
</tr>
<tr>
<td>ELT 265</td>
<td>Applied Fluid Power</td>
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Total Credits 60-65

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

Technical Electives for the Automated Industrial Controls Technician Track

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EET All EET Prefix Courses</td>
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<tr>
<td>IMT All IMT Prefix Courses</td>
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<tr>
<td>ACR 100</td>
<td>Refrigeration Fundamentals</td>
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<td>ACR 101</td>
<td>Refrigeration Fundamentals Lab</td>
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<tr>
<td>ACR 130</td>
<td>Electrical Components</td>
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<tr>
<td>ACR 131</td>
<td>Electrical Components Lab</td>
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<tr>
<td>BRX 110</td>
<td>Basic Blueprint Reading for Machinist</td>
<td>2</td>
</tr>
<tr>
<td>BRX 120</td>
<td>Basic Blueprint Reading</td>
<td>3</td>
</tr>
<tr>
<td>BRX 220</td>
<td>Basic Blueprint Reading for Construction</td>
<td>3</td>
</tr>
<tr>
<td>CAD 100</td>
<td>Introduction to Computer Aided Design</td>
<td>3</td>
</tr>
<tr>
<td>CMM 114</td>
<td>Fundamentals of Machine Tools</td>
<td>3</td>
</tr>
<tr>
<td>EET 103</td>
<td>Introduction to Engineering</td>
<td></td>
</tr>
<tr>
<td>EET 110</td>
<td>Circuits I</td>
<td></td>
</tr>
<tr>
<td>EET 114</td>
<td>Circuits II</td>
<td>5</td>
</tr>
<tr>
<td>EET 120</td>
<td>Digital I</td>
<td>3</td>
</tr>
<tr>
<td>EET 210</td>
<td>Devices I</td>
<td>4</td>
</tr>
<tr>
<td>EET 214</td>
<td>Devices II</td>
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<tr>
<td>EET 220</td>
<td>Digital II</td>
<td>3</td>
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<tr>
<td>EET 260</td>
<td>Robotics and Industrial Automation</td>
<td>5</td>
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<tr>
<td>EET 265</td>
<td>Applied Fluid Power</td>
<td>3</td>
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<tr>
<td>ESP 101</td>
<td>Introduction to Energy Systems</td>
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<td>ISX 100</td>
<td>Industrial Safety</td>
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<td>Introduction to Industrial Safety</td>
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<td>WLD 140</td>
<td>Gas Metal Arc-Welding</td>
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<td>WLD 141</td>
<td>Gas Metal Arc-Welding Lab</td>
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<td>WLD 151</td>
<td>Basic Welding A</td>
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<td>WLD 152</td>
<td>Basic Welding B</td>
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Construction Electrician Track – 460302702

(Offered at BSC, BLC, ELC, GTW, HPC, MDC, OWC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tr>
<td>EET 154</td>
<td>Electrical Construction I AND</td>
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<tr>
<td>EET 155</td>
<td>Electrical Construction I Lab AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 252</td>
<td>Electrical Construction II AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 253</td>
<td>Electrical Construction II Lab OR</td>
<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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Total Credits 60-64

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.
Technical Electives for Construction Electrician Track

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<th>Description</th>
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<td>2</td>
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<td>EET 277</td>
<td>Programmable Logic Controllers Lab</td>
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<td>Technical Electives</td>
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<td><strong>Subtotal</strong></td>
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<tr>
<td><strong>Total Credits</strong></td>
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In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

Technical Electives for Industrial Automation and Robotics Technician Track

<table>
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<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
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<tr>
<td>EET 154</td>
<td>Electrical Construction I AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 155</td>
<td>Electrical Construction I Lab AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 252</td>
<td>Electrical Construction II AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 253</td>
<td>Electrical Construction II Lab OR</td>
<td>2</td>
</tr>
<tr>
<td>EET 254</td>
<td>Electrical Construction AND</td>
<td>2</td>
</tr>
<tr>
<td>EET 255</td>
<td>Electrical Construction Lab</td>
<td>2</td>
</tr>
<tr>
<td>EET 272</td>
<td>Electrical Motor Controls II</td>
<td>2</td>
</tr>
<tr>
<td>EET 273</td>
<td>Electrical Motor Controls II Lab</td>
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</tr>
<tr>
<td>EET 276</td>
<td>Programmable Logic Controllers AND</td>
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<tr>
<td>Technical Electives</td>
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<td>8</td>
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<td><strong>23-24</strong></td>
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<tr>
<td><strong>Total Credits</strong></td>
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In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

Technical Electives for Industrial Electrician Track

<table>
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<th>Description</th>
<th>Credits</th>
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<td>ACR 100</td>
<td>Refrigeration Fundamentals</td>
<td>3</td>
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<td>ACR 101</td>
<td>Refrigeration Fundamentals Lab</td>
<td>2</td>
</tr>
<tr>
<td>ACR 130</td>
<td>Electrical Components</td>
<td>3</td>
</tr>
<tr>
<td>ACR 131</td>
<td>Electrical Components Lab</td>
<td>2</td>
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<td>BRX 110</td>
<td>Basic Blueprint Reading for Machinist</td>
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<tr>
<td>BRX 120</td>
<td>Basic Blueprint Reading</td>
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<tr>
<td>BRX 220</td>
<td>Basic Blueprint Reading for Construction</td>
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<tr>
<td>CAD 100</td>
<td>Introduction to Computer Aided Design</td>
<td>3</td>
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<tr>
<td>CMM 114</td>
<td>Fundamentals of Machine Tools</td>
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<tr>
<td>ELT 103</td>
<td>Introduction to Engineering</td>
<td>3</td>
</tr>
<tr>
<td>ELT 110</td>
<td>Circuits I</td>
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<td>ELT 114</td>
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<td>Devices II</td>
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<tr>
<td>ELT 220</td>
<td>Digital II</td>
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<td>ELT 260</td>
<td>Robotics and Industrial Automation</td>
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<tr>
<td>EET 290</td>
<td>Troubleshooting Industrial Controls and Motors</td>
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<tr>
<td>IMT 200</td>
<td>Industrial Robotics and Robotic Maintenance</td>
<td>4</td>
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<tr>
<td>EET 272</td>
<td>Electrical Motor Controls II</td>
<td>2</td>
</tr>
<tr>
<td>EET 273</td>
<td>Electrical Motor Controls II Lab</td>
<td>2</td>
</tr>
<tr>
<td><strong>Technical Electives</strong></td>
<td></td>
<td><strong>8</strong></td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
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<td><strong>24</strong></td>
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<tr>
<td><strong>Total Credits</strong></td>
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</table>
Diploma

Electrical Technology - 4603024049
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, MDC, MYC, OW, SEC, SKY, SMC, WKC)

General Education:

Area 1

Written Communication OR ........................................... 3
Heritage/ Humanities OR .................................... (3)
Oral Communications ............................................. (3)

Area 2

MAT 116 Technical Mathematics OR ...................... 3
MAT 126 Technical Algebra & Trigonometry OR .... (3)
Higher Level Quantitative Reasoning Course .... (3)

Subtotal ........................................ 6

Technical Core:

ELT 110 Circuits I OR ....................................................... 5
EET 119 Basic Electricity ............................................. (5)
Approved Course(s) from Specific Track Technical .... 4-5
Elective List

EET 250 National Electric Code ............................ 4
EET 264 Rotating Machinery .................................. (2)
EET 265 Rotating Machinery Lab ............................ (2)
EET 270 Electrical Motor Controls ............................................ 1
EET 271 Electrical Motor Controls I Lab OR .... (2)
EET 268 Rotating Machinery and Electrical Motor Controls I AND (3)
EET 269 Rotating Machinery and Electrical Motor Controls II AND (3)
EET 266 Rotating Machinery and Transformers ............................................ 1
EET 267 Rotating Machinery and Transformers Lab .... (3)
EET 127 Electrical Capstone .................................. 1
Digital Literacy OR .................................................. 3

If any student successfully tests out of Digital Literacy
he/she must take an additional Technical Course
approved by the Electrical Program Coordinator .... (3)

Subtotal ........................................ 23-26

NOTE: Digital Literacy must be demonstrated either by competency exam or by
completing a digital literacy course.

Automated Industrial Controls Technician Track – 460302404
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, MDC, MYC, OW, SEC, SKY, SMC, WKC)

EET 272 Electrical Motor Controls II ....................... (4)
EET 273 Electrical Motor Controls II Lab .............. (2)
EET 275 Programmable Logic Controls ..................... (2)
EET 281 Programmable Logic Controllers Lab .......... (2)
EET 101 Fluid Power Lab ........................................... (2)
EET 265 Applied Fluid Power .................................... (3)
Technical Electives ....................................................... 8

Subtotal ........................................ 19-21

Total Credits ........................................ 48-52

In the situation that any course that has been used in the Technical Core is also repeated
in the Track, the student must select a course with the same number of hours from the
technical elective list or a course approved by the program coordinator.

Technical Electives for Construction Electrician Track

EET All EET Prefix Courses
ETT All ETT Prefix Courses
IMT All IMT Prefix Courses
ACR 100 Refrigeration Fundamentals .......... 3
ACR 101 Refrigeration Fundamentals Lab ........ 2
ACR 130 Electrical Components .................. 3

ACR 131 Electrical Components Lab .......... 2
BRX 110 Basic Blueprint Reading for Machinist .......... 2
BRX 120 Basic Blueprint Reading .................... 3
BRX 220 Basic Blueprint Reading for Construction .. 3
CAD 100 Introduction to Computer Aided Design .. 3
CMM 114 Fundamentals of Machine Tools ...... 6
ELT 103 Introduction to Engineering .......... 3
ELT 110 Circuits I ............................................. 3
ELT 114 Circuits II ............................................ 5
ELT 120 Digital I ............................................. 3
ELT 210 Devices I ............................................ 4
ELT 214 Devices II ............................................ 4
ELT 220 Digital II ............................................ 3
ELT 260 Robotics and Industrial Automation ...... 5
ELT 265 Applied Fluid Power .................... 3
ESP 101 Introduction to Energy Systems .......... 3
FPX 100 Fluid Power .......................................... 3
FPX 101 Fluid Power Lab .................................... 2
ISX 100 Industrial Safety .................................... 3
ISX 101 Introduction to Industrial Safety ........ 3

Construction Electrician Track - 460302402
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, MDC, MYC, OW, SEC, SKY, SMC, WKC)

EET 154 Electrical Construction I AND ........ 2
EET 155 Electrical Construction I Lab AND .. 2
EET 252 Electrical Construction II AND .......... 2
EET 253 Electrical Construction II Lab OR .... 2
EET 254 Electrical Construction AND .......... (3)
EET 255 Electrical Construction Lab .......... (4)
Technical Electives* ....................................................... 12

Subtotal ........................................ 19-20

Total Credits ........................................ 48-52

In the situation that any course that has been used in the Technical Core is also repeated
in the Track, the student must select a course with the same number of hours from the
technical elective list or a course approved by the program coordinator.

Technical Electives for Automated Industrial Controls Technician Track

EET All EET Prefix Courses
ETT All ETT Prefix Courses
IMT All IMT Prefix Courses
ACR 100 Refrigeration Fundamentals .......... 3
ACR 101 Refrigeration Fundamentals Lab ........ 2
ACR 130 Electrical Components .................. 3

EET 110 Circuits I ............................................. 3
EET 114 Circuits II ............................................ 5
EET 120 Digital I ............................................. 3
EET 210 Devices I ............................................ 4
EET 214 Devices II ............................................ 4
EET 220 Digital II ............................................ 3
EET 260 Robotics and Industrial Automation ...... 5
EET 265 Applied Fluid Power .................... 3
ESP 101 Introduction to Energy Systems .......... 3
FPX 100 Fluid Power .......................................... 3
FPX 101 Fluid Power Lab .................................... 2
ISX 100 Industrial Safety .................................... 3
ISX 101 Introduction to Industrial Safety ........ 3
### Industrial Automation and Process Control Technician Track – 460302405

(Offered at)

<table>
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<tr>
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<th>Description</th>
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<td>FPX 101</td>
<td>Fluid Power Lab</td>
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<tr>
<td>EET 272</td>
<td>Electrical Motor Controls II</td>
<td>2</td>
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<td>EET 273</td>
<td>Electrical Motor Controls II Lab</td>
<td>2</td>
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<tr>
<td>EET 276</td>
<td>Programmable Logic Controllers</td>
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Total Credits: 53-56

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

#### Technical Electives for Industrial Automation and Process Control Technician Track

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### Industrial Automation and Robotics Technician Track – 460302406

(Offered at)

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<td>EET 276</td>
<td>Programmable Logic Controllers</td>
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Total Credits: 53-56

In the situation that any course that has been used in the Technical Core is also repeated in the Track, the student must select a course with the same number of hours from the technical elective list or a course approved by the program coordinator.

#### Technical Electives for Industrial Automation and Robotics Technician Track

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<td>Basic Blueprint Reading</td>
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<td>BRX 220</td>
<td>Basic Blueprint Reading for Construction</td>
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<td>CAD 100</td>
<td>Introduction to Computer Aided Design</td>
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<td>CMM 114</td>
<td>Fundamentals of Machine Tools</td>
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<td>Introduction to Engineering</td>
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<td>Circuits I</td>
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### Electrical Construction - 4603023029

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

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<td>Electrical Construction I AND</td>
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<td>EET 155</td>
<td>Electrical Construction I Lab AND</td>
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<td>EET 253</td>
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<td>Rotating Machinery AND</td>
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<td>EET 266</td>
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<td>EET 270</td>
<td>Electrical Motor Controls I AND</td>
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**Technical Electives**

Total Credits: 27-30

Certificates

173
Technical Electives for Electrical Construction Certificate

EET  All EET Prefix Courses
ACR 100 Refrigeration Fundamentals………………………….3
ACR 101 Refrigeration Fundamentals Lab………………………2
ACR 130 Electrical Components……………………………..3
ACR 131 Electrical Components Lab………………………….2
BRX 110 Basic Blueprint Reading for Machinist……………….2
BRX 120 Basic Blueprint Reading……………………………..3
BRX 220 Basic Blueprint Reading for Construction………….3
CAD 100 Introduction to Computer Aided Design………….3
CMM 114 Fundamentals of Machine Tools…………………..3
ELT 103 Introduction to Engineering…………………………3
ELT 110 Circuits I………………………………………………….5
ELT 114 Circuits II………………………………………………….5
ELT 120 Digital I………………………………………………….3
ELT 210 Devices I………………………………………………….4
ELT 214 Devices II…………………………………………………4
ELT 220 Digital II………………………………………………….3
ELT 260 Robotics and Industrial Automation………………….5
ELT 265 Applied Fluid Power………………………………….3
ESP 101 Introduction to Energy Systems……………………3
FPX 100 Fluid Power…………………………………………….3
FPX 101 Fluid Power Lab……………………………………….2
ISX 100 Industrial Safety……………………………………….3
ISX 101 Introduction to Industrial Safety……………………3

Electrical Motor Control Level I - 4603023079

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

ELT 110 Circuits I OR………………………………………………5
EET 119 Basic Electricity………………………………………(5)
EET 150 Circuits I Lab……………………………………………2
EET 250 Electrical Motor Control Level I……………………6
EET 254 Electrical Construction……………………………..2
EET 255 Electrical Construction Level II…………………….2
EET 257 Electrician Trainee Level I - 4603023039

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

ELT 110 Circuits I OR………………………………………………5
EET 119 Basic Electricity………………………………………(5)
EET 150 Circuits I Lab……………………………………………2
EET 250 Electrical Motor Control Level I……………………6
EET 254 Electrical Construction……………………………..2
EET 255 Electrical Construction Level II…………………….2

Technical Electives for Electrician Trainee Level I and II Certificates

EET  All EET Prefix Courses
ACR 100 Refrigeration Fundamentals………………………….3
ACR 101 Refrigeration Fundamentals Lab………………………2
ACR 130 Electrical Components……………………………..3
ACR 131 Electrical Components Lab………………………….2
BRX 110 Basic Blueprint Reading for Machinist……………….2
BRX 120 Basic Blueprint Reading……………………………..3
BRX 220 Basic Blueprint Reading for Construction………….3
CAD 100 Introduction to Computer Aided Design………….3
CMM 114 Fundamentals of Machine Tools…………………..3
ELT 103 Introduction to Engineering…………………………3
ELT 110 Circuits I………………………………………………….5
ELT 114 Circuits II………………………………………………….5
ELT 120 Digital I………………………………………………….3
ELT 210 Devices I………………………………………………….4
ELT 214 Devices II…………………………………………………4
ELT 220 Digital II………………………………………………….3
ELT 260 Robotics and Industrial Automation………………….5
ELT 265 Applied Fluid Power………………………………….3
ESP 101 Introduction to Energy Systems……………………3
FPX 100 Fluid Power…………………………………………….3
FPX 101 Fluid Power Lab……………………………………….2
ISX 100 Industrial Safety……………………………………….3
ISX 101 Introduction to Industrial Safety……………………3
WLD 140 Gas Metal Arc Welding…………………………….2
WLD 141 Gas Metal Arc Welding Lab……………………….3
WLD 151 Basic Welding A………………………………………2
WLD 152 Basic Welding B………………………………………5

Electrical Motor Control Level II - 4603023089

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

ELT 110 Circuits I OR………………………………………………5
EET 119 Basic Electricity………………………………………(5)
EET 250 Electrical Motor Control Level I……………………6
EET 254 Electrical Construction……………………………..2
EET 255 Electrical Construction Level II…………………….2

Residential Electricity Level I - 4603023049

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

ELT 110 Circuits I OR………………………………………………5
EET 119 Basic Electricity………………………………………(5)
EET 154 Electrical Construction I…………………………….2
EET 155 Electrical Construction I Lab……………………….2
EET 254 Electrical Construction AND……………………….3
EET 255 Electrical Construction Lab………………………….4

Total Credits

Technical Electives………………………………………………3

Total Credits 26-28

Technical Electives………………………………………………5

Total Credits 8

Technical Electives………………………………………………8

Total Credits 13

Technical Electives for Electrician Trainee Level I and II Certificates

EET  All EET Prefix Courses
EETT All EET Prefix Courses
IMT All IMT Prefix Courses
ACR 100 Refrigeration Fundamentals………………………….3
ACR 101 Refrigeration Fundamentals Lab………………………2
ACR 130 Electrical Components……………………………..3
ACR 131 Electrical Components Lab………………………….2
BRX 110 Basic Blueprint Reading for Machinist……………….2
BRX 120 Basic Blueprint Reading……………………………..3
BRX 220 Basic Blueprint Reading for Construction………….3
CAD 100 Introduction to Computer Aided Design………….3
CMM 114 Fundamentals of Machine Tools…………………..3
ELT 103 Introduction to Engineering…………………………3
ELT 110 Circuits I………………………………………………….5
ELT 114 Circuits II………………………………………………….5
ELT 120 Digital I………………………………………………….3
ELT 210 Devices I………………………………………………….4
ELT 214 Devices II…………………………………………………4
ELT 220 Digital II………………………………………………….3
ELT 260 Robotics and Industrial Automation………………….5
ELT 265 Applied Fluid Power………………………………….3
ESP 101 Introduction to Energy Systems……………………3
FPX 100 Fluid Power…………………………………………….3
FPX 101 Fluid Power Lab……………………………………….2
ISX 100 Industrial Safety……………………………………….3
ISX 101 Introduction to Industrial Safety……………………3
WLD 140 Gas Metal Arc Welding…………………………….2
WLD 141 Gas Metal Arc Welding Lab……………………….3
WLD 151 Basic Welding A………………………………………2
WLD 152 Basic Welding B………………………………………5

Residential Electricity Level I - 4603023049

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

ELT 110 Circuits I OR………………………………………………5
EET 119 Basic Electricity………………………………………(5)
EET 154 Electrical Construction I…………………………….2
EET 155 Electrical Construction I Lab……………………….2
EET 254 Electrical Construction AND……………………….3
EET 255 Electrical Construction Lab………………………….4

Total Credits

Technical Electives………………………………………………5

Total Credits 14-17
### Residential Electricity Level II - 4603023069
(Offered at ASC, BLC, BSC, ELG, GTW, HPC, HZC, MDC, MYC, OWC, SEC, SKY, SMC, WRC)

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<td>Electrical Construction AND</td>
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#### Total Credits

**14**

### Voice and Data Wiring Technician - 4603023119
(Offered at BLC, GTW, HPC, SMC)

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<td>ETT 116</td>
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#### Total Credits

**14**

### Advanced Manufacturing Technician Track

Advanced Manufacturing requires demonstrating multiple skills and competencies. Students accepted into this program gain valuable workplace experience, working three (3) days in a manufacturing environment and two (2) days on campus in a manufacturing-based classroom. Critical conceptual components of the track include embedded Safety Culture, Workplace Organization (SS), Lean Manufacturing, Problem Solving and Maintenance Reliability, coupled with Personal Behavior development (Attendance, Communication, Diligence, Teamwork, Initiative, and Interpersonal Relations) within the program pathway. Successful students apply learned skills throughout the program in the campus classroom, campus laboratory and manufacturing workplace. The advanced manufacturing technician (AMD) track develops multiple skills within the industrial maintenance pathway for manufacturing employers.

Progression in the Industrial Maintenance Technology program is contingent upon achievement of a grade of "C" or better in all courses and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

### Advanced Manufacturing Tool and Die Technician Track

The Advanced Manufacturing Tool and Die Technician Track is a program designed to provide a student with a well-rounded skill set that is needed to obtain a career in the advanced manufacturing industry sector. This apprenticeship style program provides the students the opportunity to work in an advanced manufacturing environment and learn in an advanced manufacturing-based classroom setting. Graduates from this program will have been introduced to critical maintenance skills, positive safety practices, and manufacturing core exercises with an emphasis on the knowledge needed to gain employment in the presswork and die maintenance field.

Progression in the Advanced Manufacturing Tool and Die Technician Track is contingent upon achievement of a grade of "C" or better in all courses and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

### AMTEC Track

This program affords students the opportunity to achieve an understanding of the advanced skills needed to obtain a successful career in a constantly changing and globally competitive workforce. Students are trained in the multi-skilled maintenance trade with an emphasis on those skills needed in automotive industrial facilities.

Progression in the Industrial Maintenance AMTEC track is contingent upon achievement of a grade of "C" or better in each technical course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).
## Industrial Maintenance Track:

An understanding of the requirements and opportunities in maintenance, good safety practices, pride in workmanship, and an understanding of the principles and accepted practices of the maintenance trade are covered in this program. Students are trained to hold positions in factories, hospitals, hotels, etc., where multi-skilled maintenance personnel are needed. Included are courses in air conditioning, carpentry, electricity, machine tool, metal fabrication, and welding.

Progression in the Industrial Maintenance Technology program is contingent upon achievement of a grade of “C” or better in each technical course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

### Associate in Applied Science

**Industrial Maintenance Technology - 4703037019**

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

#### General Education Core:

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<td>Natural Sciences</td>
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<tr>
<td>Heritage/Humanities</td>
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<tr>
<td>Oral Communications</td>
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#### Subtotal

18

### Advanced Manufacturing Technician Track- 470303702

(Offered at BSC, BLC, ELC, GTW, HEC, HPC, JFC, OWC, SKY, SMC, WKY)

#### Technical Core:

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<tr>
<td>IET 1302 SS</td>
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<td>IET 1303 Total Production System Maintenance</td>
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<tr>
<td>IET 1304 Problem Solving</td>
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<tr>
<td>IET 1305 Maintenance Reliability</td>
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<td>IMT 100 Welding for Maintenance AND</td>
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<tr>
<td>IMT 101 Welding for Maintenance Lab</td>
<td>2</td>
</tr>
<tr>
<td>IMT 110 Industrial Maintenance Electrical Principles AND</td>
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</tr>
<tr>
<td>IMT 111 Industrial Maintenance Electrical Principles Lab</td>
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<tr>
<td>IMT 150 Maintaining Industrial Equipment AND</td>
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<td>IMT 151 Maintaining Industrial Equipment Lab</td>
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<tr>
<td>IMT 200 Industrial Robotics and Robotic Maintenance</td>
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#### Subtotal

51

#### Total Credits

69

*Note: Only Integrated Engineering Technology (IET) courses are approved for substitution into the Advanced Manufacturing Technician Track.

*Note: Minimum of 1,824 hours of Industry Sponsored Internship.

### Automotive Manufacturing Technical Education Collaborative (AMTEC) Track- 470303703

(Offered at BSC, BLC, ELC, HPC, JFC, OWC, SMC)

#### Technical Core:

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<td>IMT 100 Industrial Maintenance Electrical Principles AND</td>
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<td>EET 270 Electrical Motor Controls I AND</td>
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<td>EET 271 Electrical Motor Controls I Lab OR</td>
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<td>EET 265 Rotating Machinery Lab</td>
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<td>WLD 121 Shielded Metal Arc Welding Fillet Lab OR</td>
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<tr>
<td>WLD 140 Gas Metal Arc Welding AND</td>
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#### Subtotal

28-32

#### Technical Electives:

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<td>IET 205 Robot Maintenance</td>
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#### Subtotal

16

#### Total Credits

62-66

### Advanced Manufacturing Tool and Die Technician Track - 470303704

(Offered at Asc, BSC, BLC, HPC, JFC, OWC, SMC)

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<td>CMM 110 Fundamentals of Machine Tool A</td>
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#### Subtotal

49

#### Total Credits

67
Technical Electives:

Thirteen (13) credit hours of electives must be taken from the approved list. The list is not all inclusive. Other technical elective courses may be taken with approval of the program instructor/advisor.

Subtotal 13

Approved Technical Electives List*:

ACR 100 Refrigeration Fundamentals ....................................... 3
ACR 101 Refrigeration Fundamentals Lab .................................. 2
ACR 102 HVAC Electricity .......................................................... 3
ACR 103 HVAC Electricity Lab .................................................... 2
ACR 130 Electrical Components ................................................... 3
ACR 131 Electrical Components Lab ............................................ 2
ACR 170 Heating Load and Duct Design ...................................... 3
ACR 250 Cooling and Dehumidification ...................................... 3
ACR 251 Cooling and Dehumidification Lab .................................. 2
ACR 260 Heating and Humidification .......................................... 3
ACR 262 Heating and Humidification Lab ..................................... 3
ACR 270 Heat Pump Application ............................................... 3
ACR 271 Heat Pump Application Lab ......................................... 2
ACR 290 Journeyman Preparation .............................................. 3
ACT 130 Measurement and Instrumentation .................................. 4
ACT 140 Industrial Controls I ..................................................... 4
ACT 150 Industrial Controls II ................................................... 4
ACT 160 Workplace Safety ....................................................... 4
ACT 200 Process Management and Quality Control .................... 4
BRX 110 Mechanical Blueprint Reading for Machinist .................... 2

BRX 111 Mechanical Blueprint Reading for Machinist OR ............... 2
BRX 120 Basic Blueprint Reading .............................................. 2
CAD 101 Engineering Graphics .................................................. 4
CAD 102 Introduction to Architecture ....................................... 4
CAD 103 Introduction to Programming: CAD .............................. 4
CAD 104 Intermediate Computer Aided Drafting ........................ 4
CAD 105 Parametric Modeling .................................................... 4
CAD 106 CAD Drafting Processes ............................................. 4
CAD 201 Building Information Modeling ................................... 4
CAD 202 Architectural Design .................................................... 4
CAD 203 Mechanical Design ..................................................... 4
CAD 204 Advanced Dimensioning/Measurement ......................... 4
CAD 230 Construction Techniques ............................................ 4
CAD 290 Department Consent Required Industrial Applications .... 4
CAD 291 Professional Program Electives .................................. 4

Subtotal 29-37
Fifteen (15) credit hours of electives must be taken from the approved list. The list is not all inclusive. Other technical elective courses may be taken with approval of the program instructor/advisor.

Technical Electives:
Fifteen (15) credit hours of electives must be taken from the approved list. The list is not all inclusive. Other technical elective courses may be taken with approval of the program instructor/advisor.

Subtotal 15

Total Credits 50-58
Electro-hydraulic Technician - 4703033169
(Offered at BLC, HPC, JFC, MYC, OW C, SMC)

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<td>IMT 111</td>
<td>Industrial Maintenance Electrical Principles Lab OR</td>
<td>3</td>
</tr>
<tr>
<td>EET 100</td>
<td>Circuits I OR</td>
<td>(5)</td>
</tr>
<tr>
<td>EET 101</td>
<td>Basic Electricity</td>
<td>(5)</td>
</tr>
<tr>
<td>FPX 100</td>
<td>Fluid Power AND</td>
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</tr>
<tr>
<td>FPX 101</td>
<td>Fluid Power Lab OR</td>
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<tr>
<td>ELT 265</td>
<td>Advanced Fluid Power</td>
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<tr>
<td>MST 206</td>
<td>Electro-hydraulic system</td>
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Total Credits 13-15

Fluid Power Mechanic - 4703033129
(Offered at BLC, HPC, JFC, MYC, OW C, SMC)

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<td>Fluid Power Lab OR</td>
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<td>Applied Fluid Power</td>
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<tr>
<td>MST 200</td>
<td>Advanced Pneumatic Systems</td>
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<td>MST 204</td>
<td>Advanced Pneumatic Systems Lab OR</td>
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Total Credits 8-10

Industrial Maintenance Electrical Mechanic - 4703033159
(Offered at ASC, BLC, BSC, ELC, G TW, HEC, HPC, JFC, MYC, OW C, SEC, SKY, SMC, WK C)

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<td>ELT 265</td>
<td>Applied Fluid Power</td>
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<tr>
<td>IMT 110</td>
<td>Industrial Maintenance Electrical Principles AND</td>
<td>3</td>
</tr>
<tr>
<td>IMT 111</td>
<td>Industrial Maintenance Electrical Principles Lab OR</td>
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</tr>
<tr>
<td>ELT 110</td>
<td>Circuits I OR</td>
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<td>EET 119</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>
<td>Industrial Maintenance Electrical Motor Controls I Lab OR</td>
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<td>EET 270</td>
<td>Electrical Motor Controls I AND</td>
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<td>Industrial Maintenance Rotating Machinery AND</td>
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<td>Industrial Maintenance Rotating Machinery Lab OR</td>
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<td>Advanced Programmable Logic Controllers AND</td>
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Total Credits 12-15

Industrial Maintenance Machinists Mechanic - 4703033119
(Offered at ASC, BLC, BSC, ELC, G TW, HEC, HPC, JFC, MYC, OW C, SEC, SKY, SMC, WK C)

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<td>BRX 112</td>
<td>Blueprint Reading for Machinist OR</td>
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<td>EET 102</td>
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<td>Welding for Maintenance AND</td>
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<td>Shielded Metal Arc Welding Fillet Lab OR</td>
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<td>Gas Metal Arc Welding Fillet Lab OR</td>
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Total Credits 19-21

Industrial Maintenance Mechanic Level I - 4703033139
(Offered at ASC, BLC, BSC, ELC, G TW, HEC, HPC, JFC, MYC, OW C, SEC, SKY, SMC, WK C)

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<td>ELT 265</td>
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<td>Industrial Maintenance Electrical Principles AND</td>
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<td>ELT 110</td>
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Total Credits 13-15

Industrial Maintenance Mechanic Level II - 4703033149
(Offered at ASC, BLC, BSC, ELC, G TW, HEC, HPC, JFC, MYC, OW C, SEC, SKY, SMC, WK C)

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<th>Course Title</th>
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<tr>
<td>BRX 120</td>
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<tr>
<td>BRX 110</td>
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</tr>
<tr>
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<td>Blueprint Reading for Machinist OR</td>
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<td>EET 102</td>
<td>Blueprint Reading</td>
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<td>FPX 100</td>
<td>Fluid Power AND</td>
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<tr>
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<tr>
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<td>Industrial Maintenance Electrical Principles AND</td>
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<td>IMT 111</td>
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<td>EET 119</td>
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Total Credits 22-26
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 problemsolving approach in state-of-the-art classroom and work experience environments. It builds leadership, management, communication skills, and professional ethics, which serve as a foundation for future development and career success. The program contains core technical courses and advanced courses in each track to address the employment needs of the domestic market.

### Associate in Applied Science

**Marine Technology – 4903997019**

(Offered at ASC, WKC)

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<td>GEN 140</td>
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<td>Introduction to Homeland Security</td>
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<td>MRN 203</td>
<td>Environmental Protection Rules</td>
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<td>MRN 208</td>
<td>Inland River Systems</td>
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<tr>
<td>BAS 160</td>
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<td>MRN 102</td>
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<td>Marine Crew Wellness</td>
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<tr>
<td>MRN 203</td>
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</tr>
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**Technical Core (required for all tracks):**

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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>MRN 104</td>
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<tr>
<td>MRN 203</td>
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<td>3</td>
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<tr>
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<tr>
<td>HSM 110</td>
<td>Introduction to Emergency Management</td>
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**Subtotal**

15 Credits

**Track Subtotal**

27-30 Credits

**Marine Culinary Management Track – 490399705**

(Offered at ASC, WKC)

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<td>BAS 120</td>
<td>Personal Finance</td>
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<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
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<tr>
<td>CUL 100</td>
<td>Introduction to Culinary Arts</td>
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<tr>
<td>CUL 125</td>
<td>Sanitation and Safety</td>
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<tr>
<td>CUL 230</td>
<td>Basic Nutrition</td>
<td>2</td>
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<tr>
<td>CUL 280</td>
<td>Cost and Control</td>
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<tr>
<td>MRN 208</td>
<td>Inland River Systems</td>
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**Track Subtotal**

19 Credits

**Track Total**

61-64 Credits

**Marine Engineering Track – 490399702**

(Offered at ASC, 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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<tr>
<td>MRN 214</td>
<td>Marine Refrigeration Systems</td>
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**Track Subtotal**

19 Credits

**Track Total**

61-64 Credits
Marine Logistics Operations Track – 490399703
(Offered at ASC, WKC)

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<tr>
<td>BAS 289</td>
<td>Operations Management</td>
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<td>MRN 208</td>
<td>Inland River Systems</td>
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<td>Introduction to Logistics Management</td>
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<td>LOM 101</td>
<td>Transportation</td>
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Track Subtotal 18

Track Total 60-63

Wheelhouse Management Track – 490399701
(Offered at ASC, WKC)

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<tr>
<td>BAS 287</td>
<td>Supervisory Management</td>
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<td>MRN 200</td>
<td>Shipboard Deck Operations</td>
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<td>MRN 201</td>
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<tr>
<td>MRN 202</td>
<td>Piloting and Navigation</td>
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Track Subtotal 18

Track Total 60-63

Certificates

Marine Culinary – 4903993039
(Offered at ASC, WKC)

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<td>CUL 100</td>
<td>Introduction to Culinary Arts</td>
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<td>CUL 125</td>
<td>Sanitation and Safety</td>
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<td>CUL 230</td>
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<td>Introduction to Marine Technology</td>
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Total 16-19

Marine Engineering – 4903993049
(Offered at ASC, WKC)

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<td>Environmental Protection Rules</td>
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<td>MRN 204</td>
<td>Marine Electrical Systems</td>
<td>5</td>
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<tr>
<td>MRN 206</td>
<td>Marine Diesel</td>
<td>5</td>
</tr>
<tr>
<td>MRN 212</td>
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<td>MRN 214</td>
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Total 22

Marine Industry - 4903993029
(Offered at ASC, WKC)

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<td>MRN 100</td>
<td>Introduction to Marine Technology</td>
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<td>MRN 101</td>
<td>Anatomy of a Towboat</td>
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<td>MRN 103</td>
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<td>MRN 203</td>
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Total 18-21

Marine Technology Business – 4903993019
(Offered at ASC, WKC)

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<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
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<tr>
<td>BAS 283</td>
<td>Principles of Management</td>
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<td>BAS 289</td>
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<tr>
<td>LOM 100</td>
<td>Introduction to Logistics Management</td>
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<tr>
<td>LOM 101</td>
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Total 18-21

The Masonry program prepares students for employment in the construction of houses, commercial structures and other projects involving brick, stone and other masonry materials. This program includes blueprint reading, introductory, intermediate and advanced masonry projects. Cost estimating, preparing materials lists, and practical experiences are included.

Progression in the Masonry program is contingent upon achievement of a grade of “C” or better in each technical course and maintenance of a 2.0 cumulative grade point average.

Diploma

Construction Mason - 4601014019
(Offered at BLC, BSC, JFC)

General Education: 6-9 credit hour requirement for diplomas in areas 1-3
Area 1 = Written Communication, Oral Communications, or Heritage/Humanities .......................... 3
Area 2 = Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning .................. 3

Subtotal 6

Technical Courses:
- Computer/Digital Literacy course OR demonstrated competency ........................................... 0-3
- BRX 220 Blueprint Reading for Construction ................................................................. 3
- ISX 100 Industrial Safety OR .................................................................................. 3
- ISX 101 Introduction to Industrial Safety ................................................................. 3
- MSY 105 Introductory Masonry .................................................................................. 3
- MSY 115 Intermediate Masonry ................................................................................ 3
- MSY 199 Cooperative Education OR ....................................................................... 3
- MSY 198 Practicum ................................................................................................. (3)
- MSY 205 Advanced Masonry .................................................................................. 3
- MSY 215 Masonry Lab ............................................................................................. 3
- MSY 225 Brick Construction .................................................................................. 3
- MSY 235 Special Techniques in Brick Construction ................................................. 3
- MSY 245 Anchors and Reinforcement ...................................................................... 3
- MSY 275 Fireplace Construction ........................................................................... 3
- MSY 299 Cooperative Education OR ....................................................................... 3
- MSY 298 Practicum ................................................................................................. (3)

Technical Electives* ........................................................................................................... 6

Subtotal 42-45

Total Credits 48-51

Technical Electives
- MSY 251 Concrete Finishing .................................................................................. 3
- MSY 253 Masonry Floors and Steps ....................................................................... 3
- MSY 255 Glass Blocks and Tile ............................................................................. 3
- MSY 257 Stone ...................................................................................................... 3

Electives (Optional):
- MSY 291 Special Problems III .................................................................................. (3)

Certificates

Bricklayer Helper - 4601013029
(Offered at BLC, BSC, JFC)

ISX 100 Industrial Safety OR .................................................................................. 3
ISX 101 Introduction to Industrial Safety ................................................................. (3)
MSY 105 Introductory Masonry .................................................................................. 3
MSY 215 Masonry Lab ............................................................................................. 3
MSY 291 Special Problems III .................................................................................. 3

Total Credits 12

181
Bricklayer Trainee - 4601013019
(Offered at BLC, BSC, JFC)

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<td>Introduction to Industrial Safety</td>
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<td>MSY 105</td>
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<td>MSY 115</td>
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<td>MSY 198</td>
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<td>MSY 205</td>
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<td>Brick Construction</td>
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<td>MSY 235</td>
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<td>MSY 245</td>
<td>Anchors and Reinforcement</td>
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<td>MSY 299</td>
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<td>MSY 298</td>
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Total Credits: 27

Construction Bricklayer - 4601013039
(Offered at BLC, BSC, JFC)

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<td>ISX 101</td>
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<td>MSY 105</td>
<td>Introductory Masonry</td>
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<td>MSY 198</td>
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<td>MSY 205</td>
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<td>MSY 245</td>
<td>Anchors and Reinforcement</td>
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<td>MSY 275</td>
<td>Fireplace Construction</td>
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<td>MSY 299</td>
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Total Credits: 36

Electives (Optional): MSY 291 Special Problems III (1-3)

Stone Mason - 4601013049
(Offered at BLC, BSC, JFC)

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<td>MSY 257</td>
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<tr>
<td>MSY 275</td>
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Total Credits: 27

Massage Therapy Technology

The Massage Therapy Technology degree offers a flexible, innovative curriculum designed to meet the changing needs of the health care marketplace with relation to Massage Therapy. The program will educate students in the principles of integrative massage modalities and the promotion of health and well-being. The program will provide students with the skills and knowledge necessary to work in a variety of settings, including but not limited to hospitals, massage clinics, rehabilitation clinics, spas, behavioral health clinics, wellness/fitness centers, doctor’s offices, private practice offices, and athletic programs at the high school, college, or professional level.

The Massage Therapy Certificate Program will train Massage Therapist in techniques ranging from entry level Swedish Massage, for its therapeutic

Associate in Applied Science

Massage Therapy Technology - 5135017019
(Offered at GTW)

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<td>MSG 119</td>
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<tr>
<td>MSG 132</td>
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<td>MSG 134</td>
<td>Massage Technique II</td>
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<tr>
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<td>Massage Therapy Practice</td>
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</tr>
<tr>
<td>MSG 232</td>
<td>Advanced Clinical Massage I</td>
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<tr>
<td>MSG 234</td>
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<td>MSG 286</td>
<td>Massage Therapy Student Clinic</td>
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Total Credits (AAS): 61-68

Certificate

Massage Therapy - 5135013019
(Offered at GTW, HPC)

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<td>MSG 117</td>
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<tr>
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<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 220</td>
<td>Massage Therapy Practice</td>
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<td>MSG 232</td>
<td>Advanced Clinical Massage I</td>
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<td>MSG 234</td>
<td>Advanced Clinical Massage II</td>
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<tr>
<td>MSG 286</td>
<td>Massage Therapy Student Clinic</td>
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Total Credits: 29


**Mechatronic Systems**

A Mechatronic Systems Operating Technician will function as a well-grounded machine operator in a complex system, with responsibility for efficient operation of the equipment with minimal down-times.

**Certificate**

**Mechatronic Systems Operating Technician - 1504033119**  
*(Offered at JFC, SKY, WKC)*  
MES 110 Mechatronic Systems Electrical Components .............. 4  
MES 120 Mechatronic Systems Mechanical Components .............. 4  
MES 130 Mechatronic Systems Hydraulic / Pneumatic Components... 4  
MES 150 Mechatronic Systems Programmable Controllers .......... 4  
**Total Credits** 16

**Medical Administrative Services**

**Certificate**

**Medical Coding and Reimbursement Specialist - 5107133029**  
*(Offered at JFC, SKY)*  
The Medical Coding and Reimbursement Specialist program insures that medical services are correctly identified on insurance claim forms. The individual codes the diagnoses and procedures performed, submits claim forms, researches and corrects insurance claim rejections. This program prepares graduates to file insurance forms for reimbursement and to code properly using the ICD, CPT and the HCPCS codes for patient diagnoses and procedures. Students are provided with an in-depth knowledge of medical terminology, anatomy, and coding procedures.

AHS 109 Introduction to Body Structure and Functions OR .......... 4  
BIO 130 Aspects of Human Biology OR .................................. (3)  
BIO 135 Basic Anatomy and Physiology with Laboratory OR ....... (4)  
BIO 137 Human Anatomy and Physiology I AND ..................... (4)  
BIO 139 Human Anatomy and Physiology II .......................... (4)  
AHS 115 Medical Terminology OR .................................... (3)  
CLA 131 Medical Terminology from Greek and Latin OR ............ (3)  
MIT 103 Medical Office Terminology .................................... (3)  
.................. Computer/Digital Literacy ............................ 3  
MBS 100 Introduction to the Health Care Field OR .................. 2  
HT 100 Introduction to Healthcare Delivery Systems ............... (2)  
MBS 110 Medical Insurance and Claims Processing .................. 6  
MBS 120 Coding for Reimbursement OR ............................... 8  
MIT 204 Medical Coding AND ........................................... (3)  
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 Assisting program is contingent upon achievement of a grade of “C” or above in each required course and maintenance of a 2.0 cumulative grade-point average or above (on a 4.0 scale).

Clinical orientation and externship are “non-paid work assignments.” CPR requirements must be successfully completed prior to enrolling in the first clinical externship and must be kept current throughout the program.

Transportation to the physician’s offices/community agencies is the responsibility of each student.

According to the Commission on Accreditation of Allied Health Education Programs (CAAHEP), all accredited medical assisting program related courses must be taught by approved faculty and meet the requirements according to CAAHEP standards and guidelines.

The Medical Assisting programs at the colleges listed below are accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) on the recommendation of the Medical Assisting Education Review Board (MAERB).

Commission on Accreditation of Allied Health Education Programs

25400 US Highway 19 North, Suite 158  
Clearwater, FL 33756, 727/210-2350  
www.caahep.org

Bluegrass CTC (AAS and Diploma), Henderson CC (AAS), Jefferson CTC (Diploma), and Maysville CTC - Maysville & Rowan Campuses (Diploma).

**Associate in Applied Science**

**Medical Assisting - 5108017029**  
*(Offered at BLC, GTW, HEC, HPIC, HZC, JFC, OWC)*

**Required General Education:**

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<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory OR</td>
<td>4</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I AND</td>
<td>4</td>
</tr>
<tr>
<td>BIO 139</td>
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**Total Credits** 16-20
### 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>
<td>4</td>
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<td>MAI 150</td>
<td>Medical Assisting Administrative Procedures I OR</td>
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</tr>
<tr>
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<td>MAI 220</td>
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<td>MIT 104</td>
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<td>MAI 240</td>
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<td>MAI 250</td>
<td>Medical Assisting Administrative Procedures II OR</td>
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<td>MIT 227</td>
<td>Medical Office Software</td>
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### Elective Courses:

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### Certificates

- **Electrocardiograph Technician - 5108013189**
  - **Total Credits**: 52-59

### Medical Office Administrative Assistant - 5108013069

- **Total Credits**: 17-22

### Additional Suggested General Education Courses (Not Required)

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### Support Classes

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<td>Medical Terminology from Greek and Latin OR</td>
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### Core Courses

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<td>MAI 289</td>
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### Elective Credits:

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### Diploma

**Medical Assisting - 5108014020**

- **Total Credits**: 20-24

### General Education:

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<td>Human Anatomy &amp; Physiology II</td>
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**NOTE:** Credit for CPR 100 may be granted with proof of CPR certification for Health Care Professionals.

**Electrocardiograph Technician - 5108013189**

- **Total Credits**: 52-59

**Medical Office Administrative Assistant - 5108013069**

- **Total Credits**: 17-22

**NOTE:** Credit for CPR 100 may be granted with proof of CPR certification for Health Care Professionals.
Medical Laboratory Technician

The Medical Laboratory Technician (MLT) program provides students with the opportunity to acquire the necessary skills to work under the supervision of a registered clinical scientist or pathologist in a clinical laboratory, hospital, or other health agency.

The MLT student learns to collect specimens from the patient and perform laboratory tests in all areas of the clinical laboratory to include immunohematology, clinical chemistry, hematology, microbiology, serology, and urinalysis.

Students enrolled in the MLT program must achieve a minimum grade of “C” in each of the medical laboratory technician courses.

Upon completion of the program, the graduate is eligible for the national certification examination as a medical laboratory technician.

The following Associate Degree Medical Laboratory Technician Programs are fully accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). Address and telephone number of NAACLS are: NAACLS, 5600 North River Road, Suite 720, Rosemont, Illinois 60018. Telephone: 773.714.8880 Fax: 773.714.8886

(Website): http://www.naacls.org (E-mail): info@naacls.org

Henderson Community College, Jeffersontown Community and Technical College, Madisonville Community College, Maysville Community and Technical College, Somerset Community College, Southeast Kentucky Community and Technical College, and West Kentucky Community and Technical College.

All program graduates take the national board exam, called the Board of Certification of the American Society of Clinical Pathology, after having met their academic and laboratory educational requirements. If successful, graduates may then use the initials “MLT (ASCP)” indicating proficiency in laboratory medicine.

### Associate in Applied Science

#### Medical Laboratory Technician - 5110047049

**General Education Courses:**

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<th>Course Name</th>
<th>Credits</th>
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**Core Courses:**

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<td>Serology</td>
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<td>MLT 216</td>
<td>Hematology II OR</td>
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<tr>
<td>MLT 217</td>
<td>Fundamentals of Hematology AND</td>
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<td>MLT 218</td>
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*BIO 137 & BIO 139 may be substituted for BIO 135

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#### Medical Office Limited Radiography - 5108013139

(Offered at JFC, SMC)

<table>
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<td>Medical Office Limited Radiography</td>
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<tr>
<td>MOR 115</td>
<td>Medical Office Limited Radiography Lab</td>
<td>3</td>
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<tr>
<td>MOR 117</td>
<td>Advanced Medical Office Limited Radiography</td>
<td>6</td>
</tr>
<tr>
<td>MOR 119</td>
<td>Advanced Medical Office Limited Radiography Clinical</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

**Phlebotomist* - 5108013109**

(Offered at ASC, BLC, GTW, HEC, MYC, SEC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHB 100</td>
<td>Phlebotomy</td>
<td>6</td>
</tr>
<tr>
<td>PHB 155</td>
<td>Phlebotomy Clinical</td>
<td>2-3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
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</tr>
</tbody>
</table>

OR

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAI 120</td>
<td>Medical Assisting Laboratory Techniques I</td>
<td>3</td>
</tr>
<tr>
<td>PHB 155</td>
<td>Phlebotomy Clinical</td>
<td>2-3</td>
</tr>
<tr>
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<td><strong>Total Credits</strong></td>
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OR

<table>
<thead>
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<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAI 120</td>
<td>Medical Assisting Laboratory Techniques I</td>
<td>3</td>
</tr>
<tr>
<td>PHB 152</td>
<td>Phlebotomy: Clinical Experience</td>
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<td><strong>Total Credits</strong></td>
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</tr>
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</table>

NOTE: See http://www.phlebotomy.com/CertAgencies.html for a directory of phlebotomy certification agencies and examination requirements.

*A competency level of successful completion of MAT 065, RDG 030 and ENC 091 must be attained for any certificate; except for the Phlebotomist certificate, a competency level of successful completion of RDG 30 must be attained.
Pathway II - 511004704
(Offered at JFC, MDC, MYC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MLT 207</td>
<td>2</td>
</tr>
<tr>
<td>PHB 170</td>
<td>3</td>
</tr>
<tr>
<td>PHB 152</td>
<td>1</td>
</tr>
<tr>
<td>MLT 208</td>
<td>3</td>
</tr>
<tr>
<td>MLT 209</td>
<td>2</td>
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<td>MLT 247</td>
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<td>MLT 248</td>
<td>3</td>
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<tr>
<td>MLT 279</td>
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<tr>
<td><strong>Subtotal</strong></td>
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</table>

Total Credit Hours – Pathway II 64-68

Diploma

Certified Medical Laboratory Assistant - 5110044029
(Offered at MDC)

General Education Courses:

Course from Area I:

- ENG 101 Writing I .................................................. 3

Course from Area II:

- MAT 110 Applied Mathematics OR .................................. 3
- Higher Quantitative Reasoning course .......................... (3)
- **Subtotal** 6

Support Courses:

- Digital Literacy .......................................................... 0-3
- BIO 135 Basic Anatomy & Physiology with Laboratory* .............. 4
- BIO 225 Medical Microbiology OR .................................. 4
- MLT 207 Introduction to Clinical Diagnostic Microbiology .......... (2)
- **Subtotal** 6-11

*Bio 137 & BIO 139 may be substituted for BIO 135.

Technical Courses:

- MLT 101 Introduction to the Clinical Laboratory AND .......... 3
- PHB 151 Phlebotomy for the Health Care Worker AND .......... 1
- PHB 152 Phlebotomy: Clinical Experience AND ................. 1
- MLT 225 Immunohematology I OR ................................ 2
- PHB 170 Applied Phlebotomy AND .................................. (3)
- PHB 152 Phlebotomy: Clinical Experience ......................... (1)
- MLT 112 Urinalysis .................................................. 2
- MLT 115 Serology .................................................... 2
- MLT 217 Fundamentals of Hematology OR .......................... 3
- MLT 215 Hematology I ............................................... (4)
- MLT 247 Introduction to Clinical Chemistry OR .................. 3
- MLT 233 Clinical Chemistry I ....................................... (3)
- MLT 275 Clinical Experience ....................................... 1
- MLT 278 Practicum I .................................................. 4
- OST 217 Medical Office Procedures OR ............................ 3
- MAI 150 Medical Assisting Administrative Procedures I .......... (3)
- **Subtotal** 22-26

Total 34-43

Certificates

Advanced Phlebotomy Technician - 5110043049
(Offered at HZC, JFC, SEC)

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>PHB 151</td>
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<tr>
<td>PHB 152</td>
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<tr>
<td>PHB 155</td>
<td>2</td>
</tr>
<tr>
<td>MLT 101</td>
<td>2</td>
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<td>PHB 170</td>
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<td>PHB 151</td>
<td>2</td>
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<tr>
<td><strong>Total</strong></td>
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</table>

Phlebotomist - 5110043019
(Offered at HZC, JFC, MDC, MYC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PHB 150</td>
<td>6</td>
</tr>
<tr>
<td>PHB 155</td>
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<tr>
<td><strong>Total</strong></td>
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</tbody>
</table>

Phlebotomy for the Health Care Worker - 5110043039
(Offered at ASC, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PHB 151</td>
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</tr>
<tr>
<td>PHB 152</td>
<td>1</td>
</tr>
<tr>
<td>MLT 101</td>
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<td>PHB 170</td>
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<td>PHB 152</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>4-5</strong></td>
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Physician’s Office Laboratory - 5110043029
(Offered at HEC, HZC, JFC, MDC, SEC, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PHB 151</td>
<td>1</td>
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<tr>
<td>PHB 152</td>
<td>1</td>
</tr>
<tr>
<td>MLT 101</td>
<td>3</td>
</tr>
<tr>
<td>PHB 170</td>
<td>3</td>
</tr>
<tr>
<td>PHB 152</td>
<td>1</td>
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<tr>
<td><strong>Total</strong></td>
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</table>

Mining Technology

The Mining Technology program will focus on the knowledge needed to succeed in the coal mining industry. Emphasis will be given to the statutory rights and safety procedures in all of the offerings including: the self-rescuer device, transportation controls, communication controls, mining conditions, mining methods, mining cycle, emergency procedures, roof control, ground control, ventilation, health hazards, clean-up and rock dusting, health and safety aspects of assigned task, mine gases, explosives, compressed cylinders, electrical hazards, first aid, operation of equipment, electrical knowledge and troubleshooting, repairing electrical and fluid power equipment, maintaining the equipment, fabricating, supervising, and the engineering aspects of mining.

Associate in Applied Science

Mining Technology - 1509017019
(Offered at BSC, MDC)

General Education:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENG 101</td>
<td>3</td>
</tr>
<tr>
<td>Quantitative Reasoning course* .................. 3</td>
<td></td>
</tr>
<tr>
<td>Social/Behavioral Science course ............... 3</td>
<td></td>
</tr>
<tr>
<td>GLY 101</td>
<td>3</td>
</tr>
<tr>
<td>Laboratory for Physical Geology OR ........... 1</td>
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</tr>
<tr>
<td>Natural Sciences ...................................... (4)</td>
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<tr>
<td>Heritage/Humanities .................................. 3</td>
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<td><strong>Subtotal</strong></td>
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</table>

*Note: MAT 150 is required for Engineering Operations Track and Supervisors Track.
# Technical Core:

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>MNG 102 Introduction to Mine Engineering and Mining Technology</td>
</tr>
<tr>
<td>MNG 160 Elements of Underground Mining</td>
</tr>
<tr>
<td>MNG 170 Elements of Surface Mining</td>
</tr>
<tr>
<td>MNG 150 Mining Laws</td>
</tr>
<tr>
<td>BAS 160 Introduction to Business</td>
</tr>
<tr>
<td>EFM 100 Personal Financial Management OR</td>
</tr>
<tr>
<td>BAS 120 Personal Finance</td>
</tr>
<tr>
<td>MNG 274 Mine Safety</td>
</tr>
<tr>
<td>MNG 180 Environmental Issues in Mining</td>
</tr>
</tbody>
</table>

Subtotal: 26

# Electricians Track - 150901703

(Offered at BSC, MDC)

<table>
<thead>
<tr>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>MNG 123 Mining Electricity I AND</td>
</tr>
<tr>
<td>MNG 125 Mining Electricity I Lab OR</td>
</tr>
<tr>
<td>IMT 110 Industrial Maintenance Electrical Principles AND</td>
</tr>
<tr>
<td>IMT 111 Industrial Maintenance Electrical Principles Lab</td>
</tr>
<tr>
<td>ELT 244 Electrical Machinery and Controls OR</td>
</tr>
</tbody>
</table>

Equivalent course

<table>
<thead>
<tr>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMT 150 Maintaining Industrial Equipment I</td>
</tr>
<tr>
<td>IMT 151 Maintaining Industrial Equipment I Lab</td>
</tr>
<tr>
<td>ELT 250 Programmable Logic Controllers</td>
</tr>
</tbody>
</table>

Technical Electives* | 2

Subtotal: 20

Total Credits: 62

# Engineering Operations Track - 150901701

(Offered at BSC, MDC)

<table>
<thead>
<tr>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA 112 Trigonometry OR</td>
</tr>
<tr>
<td>MAT 155 Trigonometry</td>
</tr>
<tr>
<td>MNG 286 Roof Control and Ventilation</td>
</tr>
</tbody>
</table>

Technical Electives* | 12

Subtotal: 19-21

Total Credits: 61-63

# Mechanics Track - 150901705

(Offered at BSC, MDC)

<table>
<thead>
<tr>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELT 265 Applied Fluid Power OR</td>
</tr>
<tr>
<td>FPX 100 Fluid Power AND</td>
</tr>
<tr>
<td>FPX 101 Fluid Power Lab</td>
</tr>
<tr>
<td>ELT 122 Mechanical Power Transmission Systems</td>
</tr>
<tr>
<td>IMT 100 Welding for Maintenance</td>
</tr>
<tr>
<td>IMT 101 Welding for Maintenance Lab</td>
</tr>
<tr>
<td>IMT 150 Maintaining Industrial Equipment I</td>
</tr>
<tr>
<td>IMT 151 Maintaining Industrial Equipment I Lab</td>
</tr>
</tbody>
</table>

Technical Electives* | 2

Subtotal: 20-23

Total Credits: 62-65

# Operators Track – 150901702

(Offered at BSC, MDC)

<table>
<thead>
<tr>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMT 150 Maintaining Industrial Equipment I</td>
</tr>
<tr>
<td>IMT 151 Maintaining Industrial Equipment I Lab</td>
</tr>
<tr>
<td>MNG 161 Elements of Underground Mining Lab</td>
</tr>
<tr>
<td>MNG 171 Elements of Surface Mining Lab</td>
</tr>
</tbody>
</table>

Technical Electives* | 11-13

Subtotal: 18-24

Total Credits: 60-66

---

**Supervisors Track - 150901704**

(Offered at BSC, MDC)

<table>
<thead>
<tr>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT 101 Fundamentals of Accounting I</td>
</tr>
<tr>
<td>MNG 286 Roof Control and Ventilation</td>
</tr>
<tr>
<td>BAS 283 Principles of Management</td>
</tr>
<tr>
<td>BAS 288 Personal and Organizational Leadership</td>
</tr>
</tbody>
</table>

Technical Electives* | 8

Subtotal: 20

Total Credits: 62

---

**Technical Electives:**

Any AIT, EET, ELT, IMT, CIT, ISM, ENV, SMT, CAD, ICT, MNG, MFG or any other course as approved by the program coordinator.

---

**Diploma**

**Underground Mining Repair Technology - 1509014019**

**General Education:**

Area 1 = Written Communication, Oral Communications, or Heritage/Humanities | 3

Area 2 = Social/Behavioral Sciences, Natural Sciences, or Quantitative Reasoning | 3

Subtotal: 6

**Technical Courses:**

Blueprint Reading Course | 2-3

<table>
<thead>
<tr>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>EFM 100 Personal Financial Management OR</td>
</tr>
<tr>
<td>BAS 120 Personal Finance</td>
</tr>
<tr>
<td>IMT 100 Welding for Maintenance</td>
</tr>
<tr>
<td>IMT 101 Welding for Maintenance Lab</td>
</tr>
<tr>
<td>ELT 250 Programmable Logic Controllers</td>
</tr>
<tr>
<td>ELT 265 Applied Fluid Power OR</td>
</tr>
<tr>
<td>FPX 100 Fluid Power AND</td>
</tr>
<tr>
<td>FPX 101 Fluid Power Lab</td>
</tr>
<tr>
<td>IMT 150 Maintaining Industrial Equipment I</td>
</tr>
<tr>
<td>IMT 151 Maintaining Industrial Equipment I Lab</td>
</tr>
<tr>
<td>MNG 123 Mining Electricity AND</td>
</tr>
<tr>
<td>MNG 125 Mining Electricity I Lab OR</td>
</tr>
<tr>
<td>IMT 110 Industrial Maintenance Electrical Principles AND</td>
</tr>
<tr>
<td>IMT 111 Industrial Maintenance Electrical Principles Lab</td>
</tr>
<tr>
<td>MNG 190 Mine Emergency Technician OR</td>
</tr>
<tr>
<td>KHP 190 First Aid &amp; Emergency Care</td>
</tr>
<tr>
<td>MNG 185 Mining Permissibility</td>
</tr>
<tr>
<td>MNG 274 Mine Safety</td>
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</tbody>
</table>

Technical Electives* | 9-12

Subtotal: 44-54

Total Credits: 50-60

---

**Technical Electives:**

Any AIT, EET, ELT, IMT, CIT, ISM, ENV, SMT, CAD, ICT, MNG, MFG or any other course as approved by the program coordinator.

---

**Certificates**

**Inexperienced Surface Trainee – 1509013149**

(Offered at MDC)

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>MNG 170 Elements of Surface Mining</td>
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Total Credits: 2

**Inexperienced Underground Trainee – 1509013159**

(Offered at MDC)

<table>
<thead>
<tr>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>MNG 160 Elements of Underground Mining</td>
</tr>
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</table>

Total Credits: 3
### Mining Technician I - 1509013039
*(Offered at BSC, MDC)*

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MNG 160</td>
<td>Elements of Underground Mining</td>
<td>3</td>
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<tr>
<td>MNG 150</td>
<td>Mining Laws</td>
<td>3</td>
</tr>
<tr>
<td>MNG 286</td>
<td>Roof Control and Ventilation</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits**: 9-12

### Mining Technician II - 1509013049
*(Offered at MDC)*

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MNG 123</td>
<td>Mining Electricity I</td>
<td>4</td>
</tr>
<tr>
<td>MNG 125</td>
<td>Mining Electricity Lab</td>
<td>1</td>
</tr>
<tr>
<td>MNG 150</td>
<td>Mining Laws</td>
<td>3</td>
</tr>
<tr>
<td>MNG 190</td>
<td>Mine Emergency Technician OR</td>
<td>3</td>
</tr>
<tr>
<td>KHP 190</td>
<td>First Aid &amp; Emergency Care</td>
<td>(2)</td>
</tr>
<tr>
<td>IMT 100</td>
<td>Welding for Maintenance</td>
<td>3</td>
</tr>
<tr>
<td>IMT 101</td>
<td>Welding for Maintenance Lab</td>
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**Total Credits**: 18-22

### Mining Technician Assistant I - 1509013019
*(Offered at BSC)*

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PMX 100</td>
<td>Precision Measurement</td>
<td>3</td>
</tr>
<tr>
<td>DIT 103</td>
<td>Preventive Maintenance Lab</td>
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<tr>
<td>IMT 100</td>
<td>Welding for Maintenance</td>
<td>3</td>
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<td>IMT 101</td>
<td>Welding for Maintenance Lab</td>
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**Total Credits**: 10

### Mining Technician Assistant II - 1509013029
*(Offered at BSC, MDC)*

<table>
<thead>
<tr>
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<th>Course Title</th>
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</thead>
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<tr>
<td>MNG 123</td>
<td>Mining Electricity I</td>
<td>4</td>
</tr>
<tr>
<td>MNG 125</td>
<td>Mining Electricity Lab</td>
<td>1</td>
</tr>
<tr>
<td>ELT 265</td>
<td>Applied Fluid Power OR</td>
<td>3</td>
</tr>
<tr>
<td>FPX 100</td>
<td>Fluid Power AND</td>
<td>(3)</td>
</tr>
<tr>
<td>FPX 101</td>
<td>Fluid Power Lab</td>
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**Total Credits**: 8-10

### Surface Field Mechanic - 1509013109
*(Offered at BSC, MDC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELT 122</td>
<td>Mechanical Power Transmission Systems</td>
<td>3</td>
</tr>
<tr>
<td>ELT 265</td>
<td>Applied Fluid Power OR</td>
<td>3</td>
</tr>
<tr>
<td>FPX 100</td>
<td>Fluid Power AND</td>
<td>(3)</td>
</tr>
<tr>
<td>FPX 101</td>
<td>Fluid Power Lab</td>
<td>(2)</td>
</tr>
<tr>
<td>IMT 100</td>
<td>Welding for Maintenance</td>
<td>3</td>
</tr>
<tr>
<td>IMT 101</td>
<td>Welding for Maintenance Lab</td>
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</table>

**Total Credits**: 11-13

### Surface Operator - 1509013139
*(Offered at BSC, MDC)*

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MNG 170</td>
<td>Elements of Surface Mining</td>
<td>2</td>
</tr>
<tr>
<td>MNG 171</td>
<td>Elements of Surface Mining Lab</td>
<td>1-3</td>
</tr>
<tr>
<td>EFM 100</td>
<td>Personal Financial Management OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 120</td>
<td>Personal Finance OR</td>
<td>(3)</td>
</tr>
<tr>
<td>WPP 200</td>
<td>Workplace Principles</td>
<td>(3)</td>
</tr>
<tr>
<td>HEO 125</td>
<td>Special Problems I OR</td>
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</table>

**Total Credits**: 9-11

### Surface Supervisor - 1509013099
*(Offered at BSC)*

<table>
<thead>
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<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Digital Literacy</td>
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<td></td>
</tr>
<tr>
<td>Blueprint Reading Course</td>
<td>2-3</td>
<td></td>
</tr>
<tr>
<td>Mining Laws</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Mine Emergency Technician OR</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>First Aid &amp; Emergency Care</td>
<td>(2)</td>
<td></td>
</tr>
<tr>
<td>Mine Safety</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Introduction to Business</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits**: 13-18

### Surface Technician/Greaser - 1509013119
*(Offered at BSC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PMX 100</td>
<td>Precision Measurement</td>
<td>3</td>
</tr>
<tr>
<td>DIT 103</td>
<td>Preventive Maintenance Lab</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total Credits**: 8

### Underground Mechanic/Electrician - 1509013069
*(Offered at MDC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MNG 123</td>
<td>Mining Electricity I</td>
<td>4</td>
</tr>
<tr>
<td>MNG 125</td>
<td>Mining Electricity I Lab</td>
<td>1</td>
</tr>
<tr>
<td>IMT 100</td>
<td>Welding for Maintenance</td>
<td>3</td>
</tr>
<tr>
<td>IMT 101</td>
<td>Welding for Maintenance Lab</td>
<td>2</td>
</tr>
<tr>
<td>IMT 110</td>
<td>Industrial Maintenance Electrical Principles AND</td>
<td>(3)</td>
</tr>
<tr>
<td>IMT 111</td>
<td>Industrial Maintenance Electrical Principles Lab</td>
<td>(2)</td>
</tr>
<tr>
<td>IMT 150</td>
<td>Maintaining Industrial Equipment I</td>
<td>3</td>
</tr>
<tr>
<td>IMT 151</td>
<td>Maintaining Industrial Equipment I Lab</td>
<td>2</td>
</tr>
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</table>

**Total Credits**: 28-35

### Underground Operator - 1509013129
*(Offered at BSC, MDC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>MNG 160</td>
<td>Elements of Underground Mining</td>
<td>3</td>
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<tr>
<td>MNG 161</td>
<td>Elements of Underground Mining Lab</td>
<td>1-3</td>
</tr>
<tr>
<td>EFM 100</td>
<td>Personal Financial Management OR</td>
<td>3</td>
</tr>
<tr>
<td>BAS 120</td>
<td>Personal Finance OR</td>
<td>(3)</td>
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<tr>
<td>WPP 200</td>
<td>Workplace Principles</td>
<td>(3)</td>
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</table>

**Total Credits**: 7-9

### Underground Supervisor - 1509013079
*(Offered at BSC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MNG 150</td>
<td>Mining Laws</td>
<td>3</td>
</tr>
<tr>
<td>MNG 274</td>
<td>Mine Safety</td>
<td>3</td>
</tr>
<tr>
<td>MNG 190</td>
<td>Mine Emergency Technician OR</td>
<td>3</td>
</tr>
<tr>
<td>KHP 190</td>
<td>First Aid &amp; Emergency Care</td>
<td>(2)</td>
</tr>
<tr>
<td>BAS 160</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>MNG 286</td>
<td>Roof Control and Ventilation</td>
<td>3</td>
</tr>
<tr>
<td>Digital Literacy</td>
<td>0-3</td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits**: 16-21
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

(Multi-Skilled Technician)

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.

Certificates

Construction and Maintenance Technician - 1509033010

(Offered at SMC)

NGT 100 Technologies Basic to the Delivery of Natural Fuel Gases ................ 3
NGT 110 Preventing/Controlling Worksite Incidents ................................. 3
NGT 130 Maintaining Compliance with 49 Code of Federal Regulations (CFR), Part 192 ..................... 1
NGT 140 Pipeline Construction Safety .................................................. 3
NGT 180 Installing & Inspecting Gas Distribution Piping .......................... 3
NGT 190 Performing Maintenance on Gas Pipelines ................................. 3
NGT 200 Placing Gas Pipelines into Service .......................................... 3
NGT 205 Identifying Practices & Procedures Used to Control and Monitor Cathodic Protection Systems ................................. 2

Total Credits 21

Gas Service Technician - 1509033040

(Offered at SMC)

NGT 100 Technologies Basic to the Delivery of Natural Fuel Gases ................ 3
NGT 110 Preventing/Controlling Worksite Incidents ................................. 3
NGT 125 Maintaining Compliance with the National Fuel Gas Code NFPA 54 and ANSI Z223.1 ........................................... 1
NGT 150 Performing Patrol & Leakage Surveys on Natural Gas Pipeline Facilities .................................................. 3
NGT 160 Installing & Maintaining Customer Service Lines and Meter and Regulator Sets ........................................... 3
NGT 170 Installing Gas Operated Equipment .......................................... 3
NGT 180 Installing and Inspecting Gas Distribution Piping .......................... 3
NGT 230 Inspecting & Maintaining Gas Metering Systems ........................ 3

Total Credits 22

Leakage and Corrosion Control Technician - 1509033020

(Offered at SMC)

NGT 100 Technologies Basic to the Delivery of Natural Fuel Gases ................ 3
NGT 110 Preventing/Controlling Worksite Incidents ................................. 3
NGT 130 Maintaining Compliance with 49 Code of Federal Regulations (CFR), Part 192 ..................... 1
NGT 140 Pipeline Construction Safety .................................................. 3
NGT 150 Performing Patrol & Leakage Surveys on Natural Gas Pipeline Facilities .................................................. 3
NGT 205 Identifying Practices & Procedures Used to Control and Monitor Cathodic Protection Systems ................................. 2
NGT 210 Troubleshooting Cathodic Protection Rectifiers ............................. 3

Total Credits 18

Measurement and Regulation Technician - 1509033030

(Offered at SMC)

NGT 100 Technologies Basic to the Delivery of Natural Fuel Gases ................ 3
NGT 110 Preventing/Controlling Worksite Incidents ................................. 3
NGT 130 Maintaining Compliance with 49 Code of Federal Regulations (CFR), Part 192 ..................... 1
NGT 140 Pipeline Construction Safety .................................................. 3
NGT 150 Performing Patrol & Leakage Surveys on Natural Gas Pipeline Facilities .................................................. 3
NGT 205 Identifying Practices & Procedures Used to Control and Monitor Cathodic Protection Systems ................................. 2
NGT 220 Identifying Principles & Performing Operations Basic to Gas Measurement .................................. 3
NGT 230 Inspecting & Maintaining Gas Metering Systems ........................ 3
NGT 240 Operating & Maintaining Gas Pressure Regulating Systems ................................. 3

Total Credits 24
The Associate Degree Nursing program prepares graduates to use their skill and knowledge to fulfill the role of the nurse and is supported by the works of the National League for Nursing (NLN) Education Competencies and Quality and Safety Education in Nursing (QSEN). The NLN Outcomes and Competencies for Graduates of Associate Degree Programs in Nursing which serve as goals of nursing education for entry into nursing practice are: human flourishing, nursing judgment, professional identity, and spirit of inquiry. QSEN competencies which were developed to prepare future nurses to have the knowledge, skills and attitudes necessary to continuously improve the quality and safety of healthcare are: patient centered care, safety, informatics, teamwork and collaboration, evidenced based practice, and quality improvement. These core components are introduced, developed and built upon through the curriculum. Graduates are eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN). The Associate Degree Nursing curriculum is organized around a clearly defined conceptual framework and combines general education and nursing courses. The nursing courses correlate classroom and clinical instruction in a variety of community agencies.

Acceptance into the Associate Degree Nursing program is based on a selective admissions process. In order to be considered for admission, applicants must comply with college and program admission requirements.

Progression in the Associate Degree Nursing program is contingent upon achievement of a grade of "C" or better in each biological science, nursing and mathematics course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale). Completion of the nursing program will meet the KCTCS graduate requirement of digital literacy.

Note: The Kentucky Board of Nursing may deny a nursing graduate admission to the NCLEX-RN Exam if an individual has been convicted of a misdemeanor or felony which involves acts that bear directly on the qualifications of the graduate to practice nursing.

The following Associate Degree Nursing programs are accredited by the Accreditation Commission for Nursing in Education, 3343 Peachtree Rd. NE, Suite 850, Atlanta, GA 30326, www.acenur.org, telephone: (404) 975-5000.


The following Associate Degree Nursing program is accredited by the National League of Nursing Commission for Nursing Education Accreditation (CNEA), 2600 Virginia Avenue, NW, The Watergate, Washington, DC 20037, www.nln.org/cnea, telephone: (202) 909-2487: Owensboro Community and Technical College.

### Nursing

The following Associate Degree Nursing program is accredited by the National League for Nursing (NLN) Education Competencies and Quality and Safety Education in Nursing (QSEN). The NLN Outcomes and Competencies for Graduates of Associate Degree Programs in Nursing which serve as goals of nursing education for entry into nursing practice are: human flourishing, nursing judgment, professional identity, and spirit of inquiry. QSEN competencies which were developed to prepare future nurses to have the knowledge, skills and attitudes necessary to continuously improve the quality and safety of healthcare are: patient centered care, safety, informatics, teamwork and collaboration, evidenced based practice, and quality improvement. These core components are introduced, developed and built upon through the curriculum. Graduates are eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN). The Associate Degree Nursing curriculum is organized around a clearly defined conceptual framework and combines general education and nursing courses. The nursing courses correlate classroom and clinical instruction in a variety of community agencies.

Acceptance into the Associate Degree Nursing program is based on a selective admissions process. In order to be considered for admission, applicants must comply with college and program admission requirements.

Progression in the Associate Degree Nursing program is contingent upon achievement of a grade of "C" or better in each biological science, nursing and mathematics course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale). Completion of the nursing program will meet the KCTCS graduate requirement of digital literacy.

Note: The Kentucky Board of Nursing may deny a nursing graduate admission to the NCLEX-RN Exam if an individual has been convicted of a misdemeanor or felony which involves acts that bear directly on the qualifications of the graduate to practice nursing.

The following Associate Degree Nursing programs are accredited by the Accreditation Commission for Nursing in Education, 3343 Peachtree Rd. NE, Suite 850, Atlanta, GA 30326, www.acenur.org, telephone: (404) 975-5000.


The following Associate Degree Nursing program is accredited by the National League of Nursing Commission for Nursing Education Accreditation (CNEA), 2600 Virginia Avenue, NW, The Watergate, Washington, DC 20037, www.nln.org/cnea, telephone: (202) 909-2487: Owensboro Community and Technical College.

### Associate in Applied Science

#### Nursing - 5138017009

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I</td>
<td>4</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>BIO 225</td>
<td>Medical Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>PSY 110</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Quantitative Reasoning Course at AA/AS Level</td>
<td>3</td>
</tr>
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<td></td>
<td>Heritage/Humanities Course</td>
<td>3</td>
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<tr>
<td>Subtotal</td>
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<td>24</td>
</tr>
</tbody>
</table>

Total Credits: **62-66**

**Taken by Licensed Practical Nurses who meet specific program requirements

**Credit may be awarded to Licensed Practical Nurses who meet specific program requirements.

Completion of the nursing program will meet the KCTCS graduation requirement of digital literacy.

#### Nursing Modular Pathway- 513801704

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td>NAA 100</td>
<td>Nursing Assistant Skills I</td>
<td>0-3</td>
</tr>
<tr>
<td>CPR 100</td>
<td>CPR for Healthcare Professionals</td>
<td>0-1</td>
</tr>
<tr>
<td>NSG 101</td>
<td><strong>Nursing Practice I</strong></td>
<td>9</td>
</tr>
<tr>
<td>NSG 219</td>
<td><strong>Medical/Surgical Nursing I OR</strong></td>
<td>7</td>
</tr>
<tr>
<td>NSG 195</td>
<td><strong>Transition to ADN OR</strong></td>
<td>(4)</td>
</tr>
<tr>
<td>NSG 199</td>
<td><strong>Accelerated Transition: PN-ADN Bridge</strong></td>
<td>(2)</td>
</tr>
<tr>
<td>NSG 211</td>
<td>Maternal Newborn Nursing</td>
<td>3</td>
</tr>
<tr>
<td>NSG 212</td>
<td>Behavioral Health Nursing</td>
<td>3</td>
</tr>
<tr>
<td>NSG 213</td>
<td>Pediatric Nursing</td>
<td>3</td>
</tr>
<tr>
<td>NSG 229</td>
<td>Medical/Surgical Nursing II</td>
<td>7</td>
</tr>
<tr>
<td>NSG 239</td>
<td>Medical/Surgical Nursing III</td>
<td>6</td>
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<tr>
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<td>38-42</td>
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</table>

Total Credits: **62-66**

**Taken by Licensed Practical Nurses who meet specific program requirements

**Credit may be awarded to Licensed Practical Nurses who meet specific program requirements.

Completion of the nursing program will meet the KCTCS graduation requirement of digital literacy.

#### Nursing Standard Pathway - 513801705

(Offered at JFC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td>NST 104</td>
<td>Health Care Basic Skills I with Clinical OR</td>
<td>0-3.5</td>
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<tr>
<td>NAA 100</td>
<td>Nursing Assistant Skills I AND</td>
<td>(0-3)</td>
</tr>
<tr>
<td>CPR 100</td>
<td>CPR for Healthcare Professionals</td>
<td>(0-1)</td>
</tr>
<tr>
<td>NSG 106</td>
<td><strong>Nursing Practice One</strong></td>
<td>9</td>
</tr>
<tr>
<td>NSG 206</td>
<td><strong>Nursing Two OR</strong></td>
<td>9</td>
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<tr>
<td>NSG 196</td>
<td><strong>Nursing LPN Bridge Course</strong></td>
<td>(5)</td>
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<tr>
<td>NSG 236</td>
<td>(Family Nursing) NursingThree</td>
<td>(9)</td>
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<td>NSG 246</td>
<td>Nursing Four</td>
<td>9</td>
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<tr>
<td>HST 121</td>
<td>Pharmacology</td>
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<tr>
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<td>38-42</td>
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</table>

Total Credits: **62-66**

**Taken by licensed practical nurses who meet specific program requirements.

**Credit may be awarded to Licensed Practical Nurses who meet specific program requirements.

Completion of the nursing program will meet the KCTCS graduation requirement of digital literacy.
Nursing 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
(Of Ferred at ASC, BSC, ELC, HPC, MYC, OWF, WKC)
Available Completely Online

NAA 125 Advanced Nursing Assistant OR………………………………6
NAA 100 Nursing Assistant Skills I AND……………………………..(3)
NAA 115 Nursing Assistant Skills II OR……………………………..(3)
MNA 100 Medicaid Nurse Aide AND………………………………(3)
NAA 115 Nursing Assistant Skills II…………………………………(3)
BIO 135 Basic Anatomy and Physiology with Laboratory OR….4
AHS 109 Introduction to Body Structure and Function OR………..(4)
BIO 137 Human Anatomy & Physiology IAND……………………(4)
BIO 139 Human Anatomy & Physiology II…………………………(4)
COM 181 Basic Public Speaking OR………………………………..3
COM 252 Introduction to Interpersonal Communication OR………(3)
ENG 101 Writing I OR………………………………………………(3)
TEC 200 Technical Communications………………………………3
Computer/Digital Literacy………………………………………...3
Total Credits……………………………………………………16-20

Nursing – Academic/Career Mobility Program

The Academic/Career Mobility Program provides a seamless educational option in nursing with two exit points allowing students to choose a career as an LPN or RN. The program is implemented in a shared framework which prepares graduates to use their skill and knowledge to fulfill the role of the nurse: enhance human flourishing, demonstrate sound nursing judgment, continually develop professional identity, and possess a spirit of inquiry to improve the quality of patient care. Encompassed within these roles are the core components of context and environment, knowledge and science, person/professional development, quality and safety, relationship-centered care, and teamwork. These core components are introduced, developed, and built upon throughout the curriculum; however, distinct parameters have been established that support the PN and RN scopes of nursing practice. The curriculum is structured around a clearly defined organizing framework and provides the foundation for a competency-based approach to nursing education through the utilization of interactive and student-focused learning strategies. Content and performance-based outcomes for the nursing courses are selected, developed, and leveled from simple to complex. Students who successfully complete the first year will receive a diploma qualifying them to apply for licensure as practical nurses. Following successful completion of the second year, students will receive the Associate in Applied Science Degree in Nursing qualifying them to apply for licensure as registered nurses.

Acceptance into the program is based on a selective admissions process. In order to be considered for admission, applicants must comply with college and program admission requirements. Licensed practical nurses who graduated within one year of admission to the program or have practiced at least one full year within the past three years and hold a current unrestricted license for practical nursing can apply to the program and will be admitted to the associate degree level based on a selective admission process.

Progression in the nursing program is contingent upon achievement of a grade of “C” or better in each biological science, nursing and mathematics course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale). Completion of the nursing program will meet the KCTCS graduation requirement of digital literacy.

Note: The Kentucky Board of Nursing may deny a nursing graduate admission to the National Council Licensure Examination for Registered Nurses (NCLEX Exam) if an individual has been convicted of a misdemeanor or felony which involves acts that bear directly on the qualifications of the graduate to practice nursing.

Associate in Applied Science

Academic/Career Mobility Program in Nursing - 5138017049
(Of Ferred at ASC, BSC, ELC, HPC, MYC, OWF, WKC)
Total CREDITS: 62-66

General Education Courses:

BIO 137 Human Anatomy & Physiology I…………………………4
BIO 139 Human Anatomy & Physiology II………………………4
BIO 225 Medical Microbiology………………………………………3
PSY 110 General Psychology………………………………………..3
ENG 101 Writing I……………………………………………………3
Heritage/Humanities Course………………………………………3
Technical Courses:

NAA 100 Nursing Assistant Skills I……………………………………0-3
CPR 100 CPR for Healthcare Professionals……………………….0-1
NRS 101 Nursing Care I AND………………………………………..9
NRS 102 Nursing Care II OR…………………………………………..10
NRS 200 **LPN to ADN Transition…………………………………(3)
NRS 203 Nursing Care III………………………………………………9
NRS 204 Nursing Care IV………………………………………………10
Subtotal………………………………………………………………38-42

**Taken only by Licensed Practical Nurses who have been admitted to the program and have met the pre-requisites.

Diploma

Academic/Career Mobility Program in Nursing – Practical Nursing - 5139014009
(Of Ferred at ASC, BSC, ELC, HPC, MYC, OWF, WKC)

General Education Courses:

BIO 137 Human Anatomy & Physiology I…………………………4
BIO 139 Human Anatomy & Physiology II………………………4
ENG 101 Writing I……………………………………………………3
PSY 110 General Psychology………………………………………..3
Quantitative Reasoning Course at AA/AS level……………………3
General Education Subtotal…………………………………………17

Technical Courses

NAA 100 Nursing Assistant Skills I……………………………………0-3
CPR 100 CPR for Healthcare Professionals……………………….0-1
NRS 101 Nursing Care I………………………………………………9
NRS 102 Nursing Care II…………………………………………….10
Subtotal………………………………………………………………19-23

Total CREDITS:……………………………………………………36-40

191
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 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.

### Associate in Applied Science

**Nursing - 5138017069**

**General Education:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 137</td>
<td>Anatomy and Physiology with Laboratory I</td>
<td>4</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Anatomy and Physiology with Laboratory II</td>
<td>4</td>
</tr>
<tr>
<td>PSY 110</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Quantitative Reasoning*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Heritage/Humanities</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
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<td>20</td>
</tr>
</tbody>
</table>

**Technical or Support Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAA 100</td>
<td>Nursing Assistant Skills I or Equivalent</td>
<td>0-3</td>
</tr>
<tr>
<td>AHS 100</td>
<td>Human Growth and Development*</td>
<td>2</td>
</tr>
<tr>
<td>NIP 103</td>
<td>Introduction of Pharmacology</td>
<td>2</td>
</tr>
<tr>
<td>NIP 116</td>
<td>Fundamentals of Nursing</td>
<td>10</td>
</tr>
<tr>
<td>NIP 126</td>
<td>Nursing Care Across the Lifespan</td>
<td>10</td>
</tr>
<tr>
<td>NIP 212</td>
<td>Advanced Medical Surgical Nursing</td>
<td>10</td>
</tr>
<tr>
<td>NIP 215</td>
<td>Leadership and Specialty Practice</td>
<td>7</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td>41-44</td>
</tr>
</tbody>
</table>

**Total Credits**

61-64

**Note:** CPR requirements must be successfully completed prior to enrolling in the first nursing course and must be kept current throughout the program. The student can receive credit for NAA 100 outside of college. The student must be active on the Kentucky Medicaid Nurse Aide Registry at time of admission.

*Quantitative Reasoning must meet the AA/AS requirements*

### Diploma

**Practical Nursing - 5139014049**

**General Education:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 137</td>
<td>Anatomy and Physiology with Laboratory I</td>
<td>4</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Anatomy and Physiology with Laboratory II</td>
<td>4</td>
</tr>
<tr>
<td>PSY 110</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
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**Technical or Support Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>NAA 100</td>
<td>Nursing Assistant Skills I or equivalent</td>
<td>0-3</td>
</tr>
<tr>
<td>NIP 103</td>
<td>Introduction of Pharmacology</td>
<td>2</td>
</tr>
<tr>
<td>NIP 116</td>
<td>Fundamentals of Nursing</td>
<td>10</td>
</tr>
<tr>
<td>AHS 100</td>
<td>Human Growth and Development*</td>
<td>2</td>
</tr>
<tr>
<td>NIP 126</td>
<td>Nursing Care Across the Lifespan</td>
<td>10</td>
</tr>
<tr>
<td>NIP 140</td>
<td>Practical Nursing Role Transition</td>
<td>6</td>
</tr>
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<td><strong>Subtotal</strong></td>
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<td>30-33</td>
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</table>

**Total Credits**

44-47

**Note:** CPR requirements must be successfully completed prior to enrolling in the first nursing course and must be kept current throughout the program. The student can receive credit for NAA 100 outside of college. The student must be active on the Kentucky Medicaid Nurse Aide Registry at time of admission.

*PSY 223 may be substituted for AHS 100.*
Certificates

AHA Advanced Cardiac Life Support – 5139012050
(Offered at MDC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>NIP 220</td>
<td>Advanced Cardiac &amp; Emergent Care</td>
</tr>
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</table>

Total Credits: 2

Kentucky Medication Aide - 5139012030

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>KMA 100</td>
<td>Kentucky Medication Aide</td>
</tr>
</tbody>
</table>

Total Credits: 5

NOTE: After the student completes the first semester of the Integrated Nursing program, the student is eligible to sit for the KMA exam.

Medicaid Nurse Aide – 5139012020

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MNA 100</td>
<td>Medicaid Nurse Aide OR</td>
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<tr>
<td>NAA 100</td>
<td>Nursing Assistant Skills I OR</td>
</tr>
<tr>
<td>NAA 125</td>
<td>Advanced Nursing Assistant OR</td>
</tr>
<tr>
<td>HST 104</td>
<td>Health Care Basic Skills I with Clinical</td>
</tr>
</tbody>
</table>

Total Credits: 3-6

NOTE: Madisonville Community College does not offer NAA 125 or MNA 100.

Nursing - Practical Nursing

The Practical Nursing program prepares individuals to practice within the legal scope of practical nursing under the supervision of a registered nurse or physician. The use of the nursing process at the practical nursing level toward the maintenance of health and prevention of illness, the observation and nursing care of persons experiencing changes in their health processes, and the evaluation of health practices of patients are emphasized.

Classroom instruction in theory and basic nursing skills is provided on campus. Under the guidance of program faculty, students gain valuable experience in the care of all ages in a variety of health care settings and/or community agencies - hospitals, long-term care facilities, clinics and child care centers. (Transportation to the community agencies is the responsibility of each student.)

Acceptance in the Practical Nursing program is based on a selective admission process.

Progression in the Practical Nursing program is contingent upon achievement of a grade of "C" or better in each course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale). Documentation of digital literacy as defined by KCTCS is required prior to completing the practical nursing program.

Note: The Kentucky Board of Nursing (KBN) may deny a nursing graduate admission to the NCLEX-PN Exam if an individual has been convicted of a misdemeanor or felony that involves acts that bear directly on the qualifications of the graduate to practice nursing.

Diploma

Practical Nurse - 5139014039
(Offered at ASC, BLC, BSC, GTW, HPC, HZC, JFC, MYC, SKY, SMC, WKC)

Practical Nurse Pathway 1 – Traditional - 513901401
(Offered at BLC, GTW, JFC, SMC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy &amp; Physiology with Laboratory OR</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I AND</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
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</table>

Subtotal: 7-11

Technical Core:

<table>
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<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>NAA 100</td>
<td>Nursing Assistant Skills I</td>
</tr>
<tr>
<td>CPR 100</td>
<td>CPR for Healthcare Professionals</td>
</tr>
<tr>
<td>NPN 100</td>
<td>Introduction to Nursing &amp; Health Care Systems AND</td>
</tr>
<tr>
<td>NPN 105</td>
<td>Development of Care Giver Role AND</td>
</tr>
<tr>
<td>NPN 110</td>
<td>Pharmacology I OR</td>
</tr>
<tr>
<td>NPN 115</td>
<td>Practical Nursing Bridge Course</td>
</tr>
<tr>
<td>NPN 125</td>
<td>Mental Health</td>
</tr>
<tr>
<td>NPN 130</td>
<td>Pharmacology II</td>
</tr>
<tr>
<td>NPN 135</td>
<td>Introduction to Health Deviations</td>
</tr>
<tr>
<td>NPN 200</td>
<td>Med Surg I</td>
</tr>
<tr>
<td>NPN 201</td>
<td>Child Bearing Family</td>
</tr>
<tr>
<td>NPN 205</td>
<td>Med Surg II</td>
</tr>
<tr>
<td>NPN 210</td>
<td>Clinical Practicum</td>
</tr>
<tr>
<td>NPN 215</td>
<td>Nursing Trends &amp; Issues</td>
</tr>
</tbody>
</table>

Subtotal: 36-44

Total Credits: 43-55

*Taken by advanced nursing assistant and allied health graduates.

Practical Nurse – Pathway 2 – Traditional Modified - 513901402
(Offered at BSC, HZC, MYC, WKC)

General Education:

<table>
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<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy &amp; Physiology with Laboratory OR</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I AND</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I OR</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking OR</td>
</tr>
<tr>
<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
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</table>

Subtotal: 7-11

Technical Core:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>NAA 100</td>
<td>Nursing Assistant Skills I</td>
</tr>
<tr>
<td>CPR 100</td>
<td>CPR for Healthcare Professionals</td>
</tr>
<tr>
<td>AHS 120</td>
<td>Medical Terminology OR</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology OR</td>
</tr>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek and Latin OR</td>
</tr>
<tr>
<td>MIT 103</td>
<td>Medical Office Terminology</td>
</tr>
<tr>
<td>NPN 101</td>
<td>Nursing Fundamentals AND</td>
</tr>
<tr>
<td>NPN 111</td>
<td>Pharmacology OR</td>
</tr>
<tr>
<td>NPN 115</td>
<td>*Practical Nursing Bridge Course</td>
</tr>
<tr>
<td>NPN 125</td>
<td>Mental Health</td>
</tr>
<tr>
<td>NPN 135</td>
<td>Introduction to Health Deviations</td>
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<tr>
<td>NPN 201</td>
<td>Child Bearing Family</td>
</tr>
<tr>
<td>NPN 202</td>
<td>Med Surg I Alterations</td>
</tr>
<tr>
<td>NPN 206</td>
<td>Med Surg II Alterations</td>
</tr>
<tr>
<td>NPN 210</td>
<td>Clinical Practicum</td>
</tr>
<tr>
<td>NPN 215</td>
<td>Nursing Trends &amp; Issues</td>
</tr>
</tbody>
</table>

Subtotal: 36-45

Total Credits: 43-56

*Taken by advanced nursing assistant and allied health graduates.

Practical Nurse – Pathway 3 – Modular – 513901403
(Offered at ASC, BLC, HPC, JFC, SKY)

General Education:

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<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
</tr>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory OR</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I AND</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
</tr>
<tr>
<td>PSY 110</td>
<td>General Psychology</td>
</tr>
</tbody>
</table>

Subtotal: 10-14

Total Credits: 36-45

Practical Nurse – Pathway 4 – Modular - 513901404
(Offered at ASC, BLC, HPC, JFC, SKY)

General Education:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory OR</td>
</tr>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I AND</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II</td>
</tr>
<tr>
<td>PSY 110</td>
<td>General Psychology</td>
</tr>
</tbody>
</table>

Subtotal: 10-14

NOTE: Madisonville Community College does not offer NAA 125 or MNA 100.
Technical Core:

NAA 100 Nursing Assistant Skills I ........................................... 0-3
CPR 100 CPR for Healthcare Professionals .................................. 0-1
AHS 115 Medical Terminology OR ........................................... 3
CLA 131 Medical Terminology from Greek and Latin ............. (3)
NPN 106 Fundamentals of Nursing Care .................................. 6
NPN 108 Pharmacology in Nursing ........................................... 3
NPN 125 Mental Health ................................................................. 3
NPN 140 Nursing Care I ................................................................. 3
NPN 201 Child Bearing Family ...................................................... 3
NPN 208 Nursing Care II ............................................................... 10
NPN 210 Clinical Practicum .......................................................... 4
NPN 215 Nursing Trends & Issues .................................................. 1

Subtotal 36-40

Total Credits: 46-54

Certificates

Kentucky Medication Aide - 5139012030

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

KMA 100 Kentucky Medication Aide ............................................ 5

Total Credits 5

Medicaid Nurse Aide - 5139012020

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

Available Completely Online

MNA 100 Medicaid Nurse Aide OR ................................................. 3
NAA 100 Nursing Assistant Skills I OR ....................................... (3)
NAA 125 Advanced Nursing Assistant OR ...................................(6)
HST 104 Health Care Basic Skills I with Clinical ....................... (3.5)

Total Credits 3-6

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 Aide (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)
BIO 137 Human Anatomy and Physiology I ......................... 4
BIO 139 Human Anatomy and Physiology II ......................... 4
MAT 110 Applied Mathematics OR Higher ............................. 3

Total 26

*MDC recommends REL 130 to fulfill the Heritage/Humanities requirement.

Pathway #1 - 510803701

(Offered at MDC)

Technical Core:

OTA 101 Introduction to Occupational Therapy ....................... 3
OTA 126 Level 1A Fieldwork ..................................................... 1
OTA 146 Occupational Therapy in Mental Health ..................... 3
OTA 136 Physical Dysfunction ............................................... 4
OTA 226 Level 1B Fieldwork ................................................... 1
OTA 246 Pediatric Issues in Occupational Therapy ................. 3
OTA 256 Elder Issues in Occupational Therapy ..................... 2
OTA 206 Community Practice .................................................. 2
OTA 236 Professional Transitions and Management ............... 2
OTA 267 Level 2A Fieldwork ................................................... 5
OTA 277 Level 2B Fieldwork ................................................... 5

Subtotal 31
The Paralegal Technology curriculum is designed to prepare a person for entry-level employment as a paralegal in courts, corporations, law firms, and government agencies. Paralegal Technology is a program of study that requires courses in the technical area. In addition, the Associate in Applied Science degree also requires general education courses.

The curriculum is based on standards developed from the National Association of Legal Assistants’ Descriptions of Certified Legal Assistant (CLA) Exam Sections. Additional research data used in the development of publication was collected from a review of related literature.

Industry standards are based on the National Association of Legal Assistants’ Descriptions of Certified Legal Assistant (CLA) Exam Sections.

The successful completion of the Paralegal Technology Program should provide the student the opportunity for employment as a paralegal in private law firms, courts, trust departments of banks, corporations, and government agencies.

Progression in the Paralegal Technology program is contingent upon achievement of a grade of “C” or better in each paralegal technical course.

The Associate in Applied Science degree received upon completion of this concentration is not designed for transfer to a senior college or university. It is designed for immediate employment preparation.

+Students should contact the senior college or university of their choosing to determine what, if any, courses will be accepted as transfer credits.

The Civil Litigation Certificate, Paralegal Technology Certificate, and Family Law Certificate are embedded in the Paralegal Technology AAS Degree.
The pharmacy technician requires training to provide a knowledge base on which to make decisions to assist the Pharmacist in their pursuit to provide exemplary patient care. The Pharmacy Technician Program prepares the student to function as a pharmacy technician under the supervision of the pharmacist. The essential elements of this program have been designed to provide competency of a skill set that pharmacy technicians can use in a wide variety of practice settings. The curriculum includes content areas in professional skills, processing and handling of medications and medication orders, patient care, quality, and safety skills, and regulatory knowledge. The program provides comprehensive educational experiences through lectures, hands on simulated labs, and experiential opportunities under the supervision of a licensed pharmacist.

**Diploma**

**Advanced Level Pharmacy Technology - 5108054029**

(Offered at BLC, HPC, JFC, SMC, WKCTC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</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 Communication</td>
<td>(3)</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek 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>CIT 105</td>
<td>Introduction to Computers</td>
<td>0-3</td>
</tr>
<tr>
<td>PHA 110</td>
<td>Pharmacy Procedures and Skills</td>
<td>6</td>
</tr>
<tr>
<td>PHA 136</td>
<td>Pharmacology I</td>
<td>3</td>
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<td>PHA 145</td>
<td>Pharmaceutical Calculations</td>
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<tr>
<td>PHA 150</td>
<td>Pharmacy Experience I</td>
<td>3</td>
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<td>PHA 200</td>
<td>Admissions for IV Therapy</td>
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<td>PHA 205</td>
<td>Admixture Preparations</td>
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<td>PHA 236</td>
<td>Pharmacy II</td>
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<td>PHA 240</td>
<td>Pharmacy Technician Career Planning</td>
<td>3</td>
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<tr>
<td>PHA 250</td>
<td>Pharmacy Experience II</td>
<td>3</td>
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<td>CPR 100</td>
<td>CPR for Professionals</td>
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</tr>
<tr>
<td><strong>Total Credits</strong></td>
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<td>39-46</td>
</tr>
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</table>

**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.

**Certificate**

**Entry Level Pharmacy Technology - 5108053039**

( Offered at BLC, HPC, JFC, SMC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</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 Communication</td>
<td>(3)</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek and Latin OR</td>
<td>(3)</td>
</tr>
<tr>
<td>MIT 103</td>
<td>Medical Office Terminology</td>
<td>(3)</td>
</tr>
<tr>
<td>PHA 110</td>
<td>Pharmacy Procedures and Skills</td>
<td>6</td>
</tr>
<tr>
<td>PHA 145</td>
<td>Pharmaceutical Calculations</td>
<td>3</td>
</tr>
<tr>
<td>PHA 150</td>
<td>Pharmacy Experience I</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td>21-24</td>
</tr>
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**Physical Therapist Assistant - 5108067049**

( Offered at BSC, HPC, HZC, JFC, MDC, MYC, SEC, SMC, WKC)

**Pathway 1 - 510806703**

( Offered at BSC, HPC, HZC, JFC, MYC, SEC, SMC, WKC)

**Associate in Applied Science**

**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>
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<tr>
<td>BIO 137</td>
<td>Human Anatomy and Physiology I</td>
<td>4</td>
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<tr>
<td>BIO 139</td>
<td>Human Anatomy and Physiology II</td>
<td>4</td>
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<tr>
<td>PSY 110</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 223</td>
<td>Developmental Psychology</td>
<td>3</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra or higher</td>
<td>3</td>
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<tr>
<td><strong>Total Credits</strong></td>
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</tbody>
</table>
Technical Courses:
- Digital Literacy .............................................................. 0-3
- PTA 101 Orientation to Physical Therapy Practice ............. 5
- PTA 125 Neuroanatomy for the PTA ................................. 1
- PTA 150 Functional Anatomy and Kinesiology .................. 6
- PTA 160 Medical and Surgical Conditions in Physical Therapy 3
- PTA 170 Clinical Practicum I ........................................... 1
- PTA 200 Modalities and Procedures in Physical Therapy .... 5
- PTA 220 Physical Therapy Principles and Procedures .......... 5
- PTA 240 Clinical Practicum II ........................................... 2
- PTA 250 Neurological Rehabilitation in Physical Therapy .... 5
- PTA 260 Seminar in Physical Therapy ............................... 2
- PTA 280 Clinical Practicum III ........................................... 5
Subtotal 40-43
Total 66-69

Pathway 2 - 510806704
(Offers at MDC)

General Education:
- ENG 101 Writing I .............................................................. 3
- BIO 137 Human Anatomy and Physiology I ..................... 4
- BIO 139 Human Anatomy and Physiology II ..................... 4
- PSY 110 General Psychology .............................................. 3
- PSY 223 Developmental Psychology ................................. 3
- MAT 150 College Algebra or higher .................................. 3
- COM 181 Basic Public Speaking ........................................ 3
Subtotal 26

Technical Support Courses:
- AHS 105 Introduction to Allied Health Occupations ........... 3
Subtotal 3

Technical Courses:
- Digital Literacy .............................................................. 0-3
- PTA 1501 Functional Anatomy & Kinesiology Lab ............. 3
- PTA 1502 Functional Anatomy & Kinesiology Lecture ......... 3
- PTA 120 Basic Skills for the PTA ................................. 2
- PTA 121 Basic Skills for the PTA Lab ............................. 2
- PTA 170 Clinical Practicum I ........................................... 1
- PTA 222 Pathology & Rehabilitation of Orthopedic Conditions 2
- PTA 223 Pathology & Rehabilitation of Orthopedic Conditions Lab 2
- PTA 234 Pathology & Rehabilitation of Neurological & Pediatric Conditions 2
- PTA 233 Pathology & Rehabilitation of Neurological & Pediatric Conditions Lab 2
- PTA 202 Therapeutic Modalities in Physical Therapy ....... 2
- PTA 203 Therapeutic Modalities in Physical Therapy Lab .... 2
- PTA 240 Clinical Practicum II ........................................... 2
- PTA 256 Pathology & Rehabilitation of Special Populations & Conditions ........................................... 2
- PTA 255 Pathology & Rehabilitation of Special Populations & Conditions Lab ........................................... 1
- PTA 260 Seminar in Physical Therapy ............................... 2
- PTA 280 Clinical Practicum III ........................................... 5
Subtotal 35-38
Total Credits (Pathway 2) 64-67

Plastics Processing

The Plastics Processing certificate will prepare students for an entry-level position in plastics processing companies.

Certificate

Plastics Processing - 1506073049
(Offers at MYC)

ITE 233 Statistical Process Control .................................... 3
ELT 107 Computer Applications for Technicians ................ 4
ISX 101 Introduction to Industrial Safety .......................... 3
PL 101 Plastic Processes and Materials ............................. 4
PL 151 Polymer Science & Testing ................................. 4
PL 251 Injection Molding OR ............................................ 4
PL 261 Plastics Extrusion ................................................. (4)
Total Credits 22

Plumbing Technology

Installing water supply and waste disposal systems in residential, commercial, and highly complex industrial sites is the focus of the plumbing program. In addition to practical experiences, instruction is given in laws and codes, blueprint reading, drawing, special equipment and other related areas.

Progression in the Plumbing technology program is contingent upon achievement of a grade of “C” or better in each PLB and BRX course and maintenance of a 2.0 cumulative grade point average or better (on a 4.0 scale).

Associate in Applied Science

Plumbing Technology - 4605073019
(Offers at ELC)

General Education:
- ENG 101 Writing I .............................................................. 3
- Quantitative Reasoning .................................................. 3
- Social/Behavioral Sciences ........................................... 3
- Heritage/Humanities ..................................................... 3
- Natural Sciences .......................................................... 3
- Oral Communications .................................................. 3
Subtotal 18

Total Credits (Pathway 2) 64-67
Technical Courses:

- Computer/Digital Literacy ........................................................................ 3
- PLB 150 Plumbing, Introduction to the Trade ........................................... 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 ............................................... 2
- PLB 251 Pumps & Water Heaters ............................................................ 2
- PLB 260 Service AND ............................................................................ 2
- PLB 261 Advanced Plumbing Lab ............................................................ 2
- PLB 262 Back Flow Prevention ............................................................... 3
- PLB 267 Water Heater Service & Replacement ........................................ 2
- PLB 269 Sewer & Drain Cleaning ............................................................ 2
- PLB 270 License Preparation for Journeyman Exam .............................. 3
- PLB 298 Plumbing Practicum/Repairs & Maintenance ............................ 4
- PLB 299 Plumbing Cooperative Education ............................................... (4)
- BRX 220 Blueprint Reading for Construction ......................................... 3
- BAS 120 Personal Finance OR ............................................................... 3
- EFM 100 Personal Financial Management ............................................. 3
- WPP 250 Workplace Principles OR ....................................................... 3
- BAS 250 Business Employability Seminar ............................................. (1)
- ISX 101 Introduction to Industrial Safety ............................................... (3)
- ISX 100 Industrial Safety ...................................................................... (3)

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

Total .......................................................................................................... 60-63

Diploma

Plumber Mechanic - 4605034019

(Offered at ELC, JFC, MYC)

Certificates

1st Year Plumber Mechanic - 4605033109

(Offered at ELC, JFC, MYC)

- PLB 150 Plumbing, Introduction to the Trade ........................................... 3
- PLB 151 Basic Plumbing Skills OR ......................................................... 3
- PLB 100 Basic Theory of Plumbing AND ............................................... (3)
- PLB 260 Service AND ............................................................................ 2
- PLB 267 Water Heater Service & Replacement ........................................ 2
- PLB 269 Sewer & Drain Cleaning ............................................................ 2

Subtotal ...................................................................................................... 6

Total .......................................................................................................... 16

2nd Year Plumber Mechanic° - 4605033119

(Offered at ELC, JFC, MYC)

- PLB 150 Plumbing, Introduction to the Trade ........................................... 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 ............................................... 2
- PLB 251 Pumps & Water Heaters ............................................................ 2
- PLB 262 Back Flow Prevention ............................................................... 3
- PLB 260 Service AND ............................................................................ 2
- PLB 267 Water Heater Service & Replacement ........................................ 2
- PLB 269 Sewer & Drain Cleaning ............................................................ 2

Subtotal ...................................................................................................... 39-45

Total .......................................................................................................... 45 - 51

General Education:

Area 1 = Written Communication, Oral Communications, or
Heritage/Humanities ................................................................. 3
Area 2 = Quantitative Reasoning ......................................................... 3

Subtotal ...................................................................................................... 6

Technical Courses:

- Computer/Digital Literacy course or
demonstrated competency ................................................................. 0-3
- PLB 150 Plumbing, Introduction to the Trade ........................................... 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 ............................................... 2
- PLB 251 Pumps & Water Heaters ............................................................ 2
- PLB 260 Service AND ............................................................................ 2
- PLB 261 Advanced Plumbing Lab ............................................................ 2
- 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 ............................................. 3
- BAS 120 Personal Finance OR ............................................................... 3
- WPP 250 Workplace Principles OR ....................................................... 3
- BAS 250 Business Employability Seminar ............................................. (1)
- ISX 101 Introduction to Industrial Safety ............................................... (3)
- ISX 100 Industrial Safety ...................................................................... (3)

Subtotal ...................................................................................................... 39-45

Total .......................................................................................................... 45 - 51

*Requires that the graduate pass a written test with 80% accuracy and a 3-part performance test

Certified Backflow Tester° - 4605033079

(Offered at BSC, ELC, JFC, MYC)

- PLB 262 Back Flow Prevention ............................................................... 3

Subtotal ...................................................................................................... 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 ........................................... 3
- PLB 151 Basic Plumbing Skills OR ......................................................... 3
- PLB 100 Basic Theory of Plumbing AND ............................................... (3)
- PLB 105 Plumbing Principles .................................................................. (3)
- PLB 250 Plumbing Appliances & Fixtures ............................................... 3
- PLB 251 Pumps & Water Heaters ............................................................ 2
- Electives (Technical Core) ................................................................. 6

Subtotal ...................................................................................................... 17

Total .......................................................................................................... 17

Maintenance Plumber - 4605033049

(Offered at BSC, ELC, JFC, MYC)

- PLB 150 Plumbing, Introduction to the Trade ........................................... 3
- PLB 151 Basic Plumbing Skills OR ......................................................... 3
- PLB 100 Basic Theory of Plumbing AND ............................................... (3)
- PLB 105 Plumbing Principles .................................................................. (3)
- PLB 115 Plumbing Applications .............................................................. 4
- ISX 101 Introduction to Industrial Safety ............................................... 3
- ISX 100 Industrial Safety ...................................................................... (3)

Subtotal ...................................................................................................... 13

Total .......................................................................................................... 13
### Professional Craft: Pottery

This program is designed to prepare individuals for employment as professional potters or in pottery-related fields. The curriculum introduces both traditional and contemporary concepts of pottery. The program provides training in technical skills, design skills, and marketing and business essentials. Course work includes development of basic and advanced throwing skills with emphasis on form and design. Study will include pottery studio design and marketing procedures for the professional potter. Graduates will be able to open and operate their own pottery, work for existing pottery businesses, or transfer to a four-year degree program. Upon completion, graduates will receive an Associate in Applied Science degree.

#### Kiln Building for Professional Potters Certificate:

Includes instruction in the methods of kiln construction, the principles used in designing kilns, and instruction in how to prepare layouts for building kilns. Topics include safety, historical and perspective, materials, design, type, fuels, and firing process. The program will also provide students with hands on experience in the building of kilns for use by professional potters. Students will participate in the building of two different types of kilns using two different types of fuels. Upon successful completion of the program, students will be able to supervise the construction of kilns for use by professional potters.

#### Professional Raku Pottery Certificate:

Provides students with advanced instruction in the techniques of producing and firing raku pottery. The program provides instruction in advanced shapes and decoration; constructing, loading, and firing a personal raku kiln; and the creation of a body of work for a one-person show and sale.

### Certificates

#### Kiln Building for Professional Potters - 5007113029

(Offered at SEC)

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<th>Title</th>
<th>Credits</th>
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<td>Introduction to Pottery</td>
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<tr>
<td>PC 250</td>
<td>Professional Kiln Design</td>
<td>5</td>
</tr>
<tr>
<td>PC 252</td>
<td>Professional Kiln Building</td>
<td>5</td>
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<td><strong>Total</strong></td>
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#### Professional Raku Pottery - 5007113019

(Offered at SEC)

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<td>Introduction to Pottery</td>
<td>7</td>
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<tr>
<td>PC 254</td>
<td>Professional Raku Pottery I</td>
<td>5</td>
</tr>
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<td>PC 256</td>
<td>Professional Raku Pottery II</td>
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</tr>
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<td><strong>Total</strong></td>
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</tbody>
</table>
Professional Studio Artist

The Professional Studio Artist (PSA) program prepares individuals for careers as independent studio artists and business owners, designers, performers, and studio technicians. The curriculum offers technical, design, product development, and performance classes in a variety of disciplines coupled with business, marketing, and management courses. Class work covering the history and traditions of each discipline, basic studio development and technology requirements will be a vital part of the student's education. Students will complete a track of study and acquire the necessary technical proficiencies, creative problem solving, business skills, production processes, and the knowledge to apply these aspects to careers in the craft, music, theater, or applied arts fields.

The AAS Track in Wood/Furniture Design prepares a student to start a business in studio furniture design and manufacturing, begin employment as a designer/maker for a small to mid-size woodworking company, work as a model maker/prototype builder for the wood/furniture industry, work as a furniture maker/technician, start a career as a furniture conservationist, or pursue a four-year degree. The program of study will offer a diverse and comprehensive study in furniture design and making; the technology of wood as a material; the technical aspects of wood machinery and hand tool usage; the importance and applications of drawing and design; and the practicality of business ownership, craft marketing, and business management.

The diploma in Wood Studio Technician and the certificate in Furniture Making Fundamentals will afford students the opportunity to acquire specialized and basic technical skills as furniture makers. The Wood Studio Certificate will give the student an intensive foundation in woodworking techniques and studio practice. The diploma and certificate programs signify that the student possesses a basic understanding of woodworking and furniture making procedures necessary for entry-level positions in the custom furniture industry.

The AAS Jewelry/Metals Track prepares a student to start a business in studio jewelry design, producing one-of-a-kind and limited production works for the private market; work in a commercial studio as a professional jeweler or a model designer/fabricator; or to enter into the field of jewelry/metal conservation. Creative problem solving and functional design are essentials to the program as well as extensive laboratory coursework in all aspects of bench jewelry repair. The metallurgical science of precious metals, traditional and non-traditional metal processes, processes of jewelry mass production, silversmithing, and goldsmithing and work in new technologies such as computer-aided jewelry design.

The diploma in Jewelry/Metals Technician and the certificate in Jewelry/Metals Fundamentals will afford students the opportunity to acquire specialized and basic technical skills as jewelry makers and technicians. The Jewelry Studio Certificate will give the student an intensive foundation in metals technique and studio practice. The diploma and certificate programs signify that the student possesses a basic understanding of jewelry design and making procedures necessary for entry-level positions in the custom or commercial jewelry industry.

The AAS Track in Bluegrass & Traditional Music prepares a student to begin work as a professional bluegrass and traditional musician in the areas of performance, touring, studio recording, studio engineering, and song writing. The track also provides training in music business, management, and event promotion while providing the student preparation to pursue a four-year degree. Program studies will offer in-depth mentoring and “real world” performance situations for solo, ensemble, and instrumental musicians as well as recording session set-up, sound enhancement and band management.

The diploma in Bluegrass & Traditional Studio Artist and the certificate in Bluegrass & Traditional Music Fundamentals will afford students the opportunity to acquire training in the basics of performance, recording, songwriting and management. The diploma and certificate programs signify that the student possesses a basic understanding of the major components necessary for an entry-level career in Bluegrass and Traditional Music.

The AAS track in Ceramics prepares a student to start a business in studio production for pottery, tiles, slip casting, mold making and/or kiln building; begin employment as a studio technician to maintain equipment and manage various kinds of kiln firings; work for commercial ceramics businesses as a production designer, decorator, mold-maker, decal maker, conservationist, kiln and/or glaze technician; or to pursue higher degrees in the field of ceramics. The program is designed to prepare students to become independent and self-reliant ceramicists in creative and functional design.

The diploma in Ceramics Studio Technician and the certificate in Ceramics Fundamentals will afford students the opportunity to acquire specialized and basic technical skills as a ceramicist and technician. The Ceramics Studio Certificate will give the student an intensive foundation in ceramics technique and studio practice. The diploma and certificate programs signify that the student possesses a basic understanding of ceramic object design and fabrication techniques necessary for entry-level positions in custom or commercial ceramic industry.

Documentation of digital literacy as defined by KCTCS is required prior to enrolling in the first PSA course.

Associate in Applied Science

Professional Studio Artist - 5002017019
(Offered at HZC)

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<tr>
<th>Course</th>
<th>Credits</th>
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<tr>
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<td>Applied Mathematics OR</td>
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<td>COM 252</td>
<td>Any higher level Quantitative Reasoning course</td>
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<td>COM 181</td>
<td>Basic Public Speaking</td>
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<td>MUC 150</td>
<td>Classic Instruction to Piano OR</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>
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<tr>
<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 I</td>
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<tr>
<td>PSM 105</td>
<td>Recording I</td>
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<td>PSM 107</td>
<td>Songwriting I</td>
</tr>
<tr>
<td>PSM 112</td>
<td>Individual String Instrument Instruction x 4</td>
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<tr>
<td>PSM 113</td>
<td>Guitar I OR</td>
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<tr>
<td>PSM 114</td>
<td>Bluegrass &amp; Traditional Band/Ensemble x4</td>
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<tr>
<td>PSM 118</td>
<td>Bluegrass &amp; Traditional Harmony/Part Singing</td>
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<td>PSM 121</td>
<td>Bluegrass &amp; Traditional Music History II</td>
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<td>PSM 125</td>
<td>Recording II OR</td>
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<tr>
<td>PSM 117</td>
<td>Songwriting II</td>
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<tr>
<td>PSM 231</td>
<td>Bluegrass &amp; Traditional Music III</td>
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<tr>
<td>PSM 235</td>
<td>Recording III OR</td>
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<tr>
<td>PSM 217</td>
<td>Songwriting III</td>
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<tr>
<td>PSM 245</td>
<td>Recording IV OR</td>
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<tr>
<td>**HUM 202</td>
<td>for Bluegrass and Traditional Music Track</td>
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Subtotal 18-19

Bluegrass and Traditional Music Track - 500201703
(Offered HZC)

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<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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<td>PSM 101</td>
<td>Bluegrass &amp; Traditional Music History I</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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<td>PSM 112</td>
<td>Individual String Instrument Instruction x 4</td>
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<td>PSM 217</td>
<td>Songwriting III</td>
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<tr>
<td>PSM 245</td>
<td>Recording IV OR</td>
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</table>
PSW 211 Furniture Making IV ........................................ 3
PSW 220 Furniture/ Wood Product Development ............... 2
PSA 240 Professional Artist Seminar ................................ 3
Sub-Total 43
Total Credits 61-62

PSW 230 Furniture Making V (Optional) .......................... (6)

Diplomas

Bluegrass & Traditional Studio Artist - 5002014039
(Offered at HZC)

General Education:
Area 1 = Written/ Oral Communications, and/or
Heritage/ Humanities .................................................. 3-6
Area 2 = Social/ Behavioral Science, Natural Science and/or
Quantitative Reasoning .............................................. 3-6
Subtotal 9

Support Courses
BAS 200 Small Business Management ............................ 3
HUM 202 Survey of Appalachian Studies I ....................... 3
MUS 174 Theory for Non-Music Majors ................................ 3
Subtotal 9

Technical Courses
Digital Literacy OR ...................................................... 0-3
Digital Literacy Competency by exam
PSM 101 Bluegrass & Traditional Music History I .............. 3
PSM 113 Guitar I OR ...................................................... 0-1
Competency by audition
PSM 105 Recording I ...................................................... 1
PSM 107 Songwriting I .................................................... 1
PSM 112 Individual String Instrument Instruction x4 ........... 4
PSM 114 Bluegrass & Traditional Band/ Ensemble x4 .......... 8
PSM 241 Bluegrass & Traditional Music IV (elective) .......... 0-3
PSM 250 Field Experience/ Production/ Business (elective) ... 0-3
Subtotal 17-27
Total Credits 35-45

Ceramics Studio Technician - 5002014049

ENG 101 Writing I ...................................................... 3
MAT 110 Applied Mathematics OR .................................. 3
Any higher level Quantitative Reasoning course ............... (3)
Subtotal 6

Technical/ Support Courses
Digital Literacy OR ...................................................... 0-3
Digital Competency by exam
ART 110 Drawing I ...................................................... 3
ART 113 3-Dimensional Design ...................................... 3
BAS 200 Small Business Management ............................ 3
PSC 112 Ceramics I ...................................................... 3
PSC 115 Ceramics II ...................................................... 3
PSC 117 Glaze Calculations ........................................... 3
PSC 210 Ceramics III ...................................................... 3
PSC 211 Kiln Operation and Design .................................. 3
PSC 220 Ceramics Product Development ........................ 3
PSC 230 Ceramics V ...................................................... 3
PSA 240 Professional Artist Seminar ................................ 3
Subtotal 19-22
Total Credits 30-33

Jewelry/Metals Technician - 5002014029

ENG 101 Writing I ...................................................... 3
MAT 110 Applied Math OR ............................................. 3
Any higher level math .................................................. 3
Subtotal 6
### Technical/Support Courses
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<td>ART 113</td>
<td>3-Dimensional Design</td>
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<td>BAS 200</td>
<td>Small Business Management</td>
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<td>Jewelry/Metals I</td>
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<tr>
<td>PSJ 115</td>
<td>Jewelry/Metals II</td>
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<td>PSJ 117</td>
<td>Metal Casting/Finishing Techniques</td>
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<td>PSJ 210</td>
<td>Jewelry/Metals III</td>
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<td>PSJ 211</td>
<td>Holloware and Metal Forming</td>
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<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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**Subtotal**: 31-34

**Total Credits**: 37-40

### Wood Studio Technician - 5002014019

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**Subtotal**: 6

### Technical/Support Courses
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<td>ART 113</td>
<td>3-Dimensional Design</td>
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<td>BAS 200</td>
<td>Small Business Management</td>
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<tr>
<td>PSJ 110</td>
<td>Jewelry/Metals I</td>
<td>3</td>
</tr>
<tr>
<td>PSJ 115</td>
<td>Jewelry/Metals II</td>
<td>3</td>
</tr>
<tr>
<td>PSJ 117</td>
<td>Metal Casting/Finishing Techniques</td>
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<tr>
<td>PSJ 210</td>
<td>Jewelry/Metals III</td>
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<tr>
<td>PSJ 211</td>
<td>Furniture Making IV</td>
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<tr>
<td>PSJ 212</td>
<td>Furniture and Wood Product Development</td>
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**Subtotal**: 28-31

**Total Credits**: 34-37

### Certificates

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<tr>
<td>Audio Recording – 5002013089</td>
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<tr>
<td>(Offered at HZC)</td>
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<tr>
<td>BAS 200 Small Business Management</td>
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### Guided Electives (Select 2 of the following):
<table>
<thead>
<tr>
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<th>Course Name</th>
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<tbody>
<tr>
<td>PSM 101</td>
<td>Bluegrass &amp; Traditional Music History I</td>
<td>3</td>
</tr>
<tr>
<td>MLIS 100</td>
<td>Intro to Music</td>
<td>3</td>
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<tr>
<td>MLIS 104</td>
<td>Introduction to Jazz History</td>
<td>3</td>
</tr>
<tr>
<td>MLIS 222</td>
<td>History and Sociology of Rock Music</td>
<td>3</td>
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### Technical Electives (Select 1 of the following):
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<thead>
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<tr>
<td>PSM 107</td>
<td>Songwriting I</td>
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<tr>
<td>PSM 112</td>
<td>Individual Stringed Instruction</td>
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</tr>
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<td>PSM 113</td>
<td>Guitar I</td>
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<tbody>
<tr>
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<td>PSM 125</td>
<td>Recording II</td>
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<td>PSM 235</td>
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<td>PSM 245</td>
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**Total Credits**: 16

### Bluegrass & Traditional Music Fundamentals - 5002013039

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### Technical Courses
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<tbody>
<tr>
<td>ART 110</td>
<td>Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 112</td>
<td>2-Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>PSC 112</td>
<td>Ceramics I</td>
<td>3</td>
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<tr>
<td>PSC 115</td>
<td>Ceramics II</td>
<td>3</td>
</tr>
<tr>
<td>PSC 117</td>
<td>Glaze Calculations</td>
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<tr>
<td>PSC 211</td>
<td>Kiln Operation and Design</td>
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**Subtotal**: 18

### Ceramics Studio - 5002013079
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<td>3</td>
</tr>
<tr>
<td>PSC 112</td>
<td>Ceramics I</td>
<td>3</td>
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<tr>
<td>PSC 115</td>
<td>Ceramics II</td>
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<tr>
<td>PSC 117</td>
<td>Glaze Calculations</td>
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<tr>
<td>PSC 211</td>
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**Subtotal**: 15

### Furniture Making Fundamentals - 5002013029
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<tbody>
<tr>
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<td>3</td>
</tr>
<tr>
<td>PSW 111</td>
<td>Introduction to Furniture Making</td>
<td>3</td>
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<tr>
<td>PSW 115</td>
<td>Furniture Making II</td>
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<tr>
<td>PSW 116</td>
<td>Wood Finishing</td>
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<tr>
<td>PSW 211</td>
<td>Wood Bending and Veneering</td>
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**Total Credits**: 14

### Jewelry/Metals Fundamentals - 5002013019

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<tr>
<td>PSJ 110</td>
<td>Jewelry/Metals I</td>
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<td>PSJ 115</td>
<td>Jewelry/Metals II</td>
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<tr>
<td>PSJ 210</td>
<td>Jewelry/Metals III</td>
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**Total Credits**: 15

### Jewelry Studio - 5002013069
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<tbody>
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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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<td>PSJ 116</td>
<td>Ancient Techniques</td>
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<tr>
<td>PSJ 117</td>
<td>Metal Casting/Finishing Techniques</td>
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<td>PSJ 211</td>
<td>Holloware and Metal Forming</td>
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<td>PSJ 212</td>
<td>Metallurgy of Precious Metals</td>
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**Total Credits**: 16

### Wood Furniture Studio - 5002013059
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<th>Course Name</th>
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<tbody>
<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>
<tr>
<td>PSW 211</td>
<td>Wood Bending and Veneering</td>
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</table>

**Total Credits**: 14
Project Lead the Way

Project Lead the Way complements traditional college-preparatory academic studies with challenging career/technical studies, providing students with hands-on exposure to real-life engineering or biomedical challenges.

Certificate

Biomedical Science – PLTW – 5100003040

( Offered at BLC, HZC, OWC )

- PLW 130 Principles of Biomedical Sciences ........................................ 4
- PLW 135 Principles of Human Body Systems ..................................... 4
- PLW 140 Medical Interventions ......................................................... 4
- PLW 145 Biomedical Innovations ....................................................... 4

Total Credits 16

Engineering Related – PLTW – 1515993019

( Offered at BLC, OWC, MDC, SEC )

- PLW 100 Introduction to Engineering Design .................................. 4
- PLW 125 Principles of Engineering .................................................. 4
- PLW 150 Digital Electronics ............................................................. 4
- PLW 200 Aerospace Engineering or ............................................... 4
- PLW 225 Civil Engineering and Architecture or .............................. 4
- PLW 250 Computer Integrated Manufacturing ................................ 4
- PLW 295 Engineering Design and Development .............................. 4

Total Credits 20

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, mathematical and general education. Students enrolled in the Radiography program must achieve a minimum grade of “C” in each Radiography course, required natural science course, and quantitative reasoning course. Upon completion of the program, the graduate is eligible to take the American Registry of Radiologic Technologists (ARRT) registry examination to become a registered radiographer. Radiographers may find positions in hospitals, health clinics, and physicians’ offices. The curriculum requires attendance in the summer session, fall and spring semesters. Note: CPR certificate must be obtained prior to enrolling in IMG 100 or IMG 104, IMG 106 and IMG 108; or DMI 110 and certification must be kept current throughout the program. Note: Documentation of digital literacy as defined by KCTCS is required prior to admission to IMG courses.

Advanced Imaging in Radiography focuses on the areas of Computed Tomography (CT) and Magnetic Resonance Imaging (MRI) in the Radiological Sciences. Didactic and clinical instruction prepares the technologist to work in the areas of CT and MRI in the healthcare setting and to sit for the Advanced Board Exams given by the American Registry of Radiologic Technologists. These courses are offered for technologists who are currently registered by the American Registry of Radiologic Technologists in Radiography or the Nuclear Medicine 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 - 510911701

( Offered at BLC, ELC, HPC, HZC, JFC, SEC, SKY, SMC, WKY )

General Education:

- Social/Behavioral Sciences ......................................................... 3
- Heritage/Humanities ................................................................... 3
- ENG 101 Writing I ................................................................. 3
- BIO 137 Human Anatomy & Physiology I .............................. 4
- BIO 139 Human Anatomy & Physiology II ............................. 4
- MAT 150 College Algebra OR ..................................................... 3
- Higher Level Quantitative Reasoning Course ......................... (3)

Subtotal 20

Pathway 1 – 510911701

( Offered at BLC, HZC, SEC )

Additional General Education:

- PHY 172 Physics for Health Sciences OR ................................... 2
- PHY 152 Introduction to Physics OR ........................................... (3)
- PHY 171 Applied Physics ......................................................... (4)

Subtotal 2-4

Support Course:

- CLA 131 Medical Terminology from Greek & Latin OR .......... 3
- AHS 115 Medical Terminology OR ............................................. (3)
- AHS 120 Medical Terminology .................................................. (1)

Subtotal 1-3

Technical Courses:

- IMG 100 Radiography I ............................................................... 7
- IMG 101 Clinical I ....................................................................... 4
- IMG 110 Radiography II ............................................................... 7
- IMG 111 Clinical II ........................................................................ 4
- IMG 201 Clinical III ..................................................................... 3
- IMG 210 Radiography IV ............................................................... 4
- IMG 211 Clinical IV ...................................................................... 6
- IMG 220 Radiography V ............................................................... 4
- IMG 221 Clinical V ....................................................................... 6

Subtotal 45

Total Credits Pathway 1 68-72

Pathway 2 – 510911702

( Offered at ELC, HPC, JFC, SEC )

Additional General Education:

- PHY 152 Introduction to Physics OR ........................................... 3
- PHY 171 Applied Physics ......................................................... (4)

Subtotal 3-4

Technical Courses:

- AHS 120 Medical Terminology OR ............................................. 1
- AHS 115 Medical Terminology .................................................. (3)
- IMG 104 Introduction to Radiography ......................................... 2
- IMG 106 Patient Care in Radiography* ...................................... 2
- IMG 108 Radiographic Procedures I .......................................... 4
- IMG 109 Clinical Practice I ........................................................ 1
- IMG 114 Image Production and Acquisition .............................. 2
- IMG 116 Advanced Patient Care in Radiography ..................... 2
- IMG 118 Radiographic Procedures II ......................................... 4
- IMG 119 Clinical Practice II ....................................................... 3
- IMG 209 Clinical Practice III ...................................................... 3
- IMG 219 Clinical Practice IV ..................................................... 6
- IMG 224 Radiation Protection & Biology .................................... 2
- IMG 226 Radiography Pathology ............................................... 1
- IMG 228 Radiography Seminar .................................................. 2
- IMG 229 Clinical Practice V ....................................................... 6

Subtotal 44-46

Total Credits Pathway 2 67-70

*NAA 100 may be substituted for IMG 106.
**Technical Courses:**

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<td>Medical Terminology for Radiography</td>
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<td>DMI 106</td>
<td>Patient Care and Ethics for Radiographers</td>
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<td>DMI 108</td>
<td>Radiographic Positioning and Procedures I</td>
<td>4</td>
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<tr>
<td>DMI 110</td>
<td>Radiography Practicum I</td>
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<tr>
<td>DMI 114</td>
<td>Principles of X-Ray Production, Exposure, and Image Production</td>
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<td>DMI 115</td>
<td>Pharmacology for Radiographers</td>
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<td>DMI 118</td>
<td>Radiographic Positioning and Procedures II</td>
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<td>DMI 128</td>
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<td>DMI 130</td>
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<td>DMI 214</td>
<td>Radiographic Equipment and Quality Control</td>
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<td>DMI 230</td>
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Subtotal: 48

Total: 68

*AHS 115 may be substituted for DMI 102.*

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### Certificate

**Advanced Imaging in Radiography - 5109113029**

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<tbody>
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<td>Sectional Anatomy for Advanced Imaging</td>
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<tr>
<td>IMG 240</td>
<td>Pathology for Advanced Medical Imaging Modalities</td>
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Subtotal: 6

**Must Select One of the Tracks Below to complete the certificate.**

---

### Computed Tomography Track – 510911301

*(Offered at ELC, HZC, JFC, SEC)*

<table>
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<tr>
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<td>Computed Tomography Physics and Instrumentation</td>
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<td>IMG 260</td>
<td>Computed Tomography Imaging Procedures</td>
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Subtotal: 6

Total Credits: 12

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### Computed Tomography with Clinical Track – 510911302

*(Offered at JFC, SMC, WKC)*

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<td>Computed Tomography Imaging Procedures</td>
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<td>Computed Tomography Clinical Practice I</td>
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Subtotal: 10

Total Credits: 16

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### Magnetic Resonance Imaging Track – 510911303

*(Offered at ELC, HZC, JFC, SEC)*

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<tbody>
<tr>
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<td>Magnetic Resonance Physics and Instrumentation</td>
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<td>IMG 265</td>
<td>Magnetic Resonance Imaging Technology</td>
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Subtotal: 6

Total Credits: 12

---

**Respiratory Care**

The Respiratory Care program prepares the graduate to take an active role in the maintenance and/or restoration of cardiopulmonary homeostasis. The curriculum includes intensive course work in the supporting sciences and general education areas. Classroom instruction is supplemented with learning experiences in the campus laboratory and in area clinical affiliates. Students enrolled in the Respiratory Care program are required to achieve a minimum grade of “C” in each Respiratory Care course.

Although hospitals employ the majority of respiratory therapists, other employers include home care providers, medical clinics, nursing homes, and industry. Graduates are qualified to take the National Board for Respiratory Care examinations to earn the Certified Respiratory Therapist (C.R.T.) credential and the Registered Respiratory Therapist (RRT) credential.

*Note: The Kentucky Board for Respiratory Care may deny mandatory certification for convicted felons. Questions should be directed to the Kentucky Board for Respiratory Care.*

*Note: Digital literacy must be documented by competency exam or by completing a digital literacy course.*

Note: Hours Exception (67-70 for the A.A.S) approved by the KCTCS Board of Regents in June 2010.

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### Associate in Applied Science

**Respiratory Therapist - 5109087089**

*(Offered at ASC, BLC, BSC, ELC, HPC, JFC, MDC, MYC, SEC, SKY, SMC)*

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<td>Human Anatomy &amp; Physiology</td>
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<td>Human Anatomy &amp; Physiology II</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra* OR</td>
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<td>MAT 110</td>
<td>Applied Mathematics* OR</td>
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<tr>
<td>MAT 146</td>
<td>Contemporary College Mathematics*</td>
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<tr>
<td>ENG 101</td>
<td>Writing I*</td>
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<td>BIO 226</td>
<td>Principles of Microbiology OR</td>
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<td>BIO 225</td>
<td>Medical Microbiology</td>
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<td>Cardiopulmonary Anatomy &amp; Physiology</td>
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<td>RCP 120</td>
<td>Theory &amp; Principles of Respiratory Care OR</td>
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<td>Fundamentals of Respiratory Care#</td>
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<tr>
<td>RCP 125</td>
<td>Cardiopulmonary Evaluation OR</td>
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<td>RCP 130</td>
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<td>HST 121</td>
<td>Pharmacology** OR</td>
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<tr>
<td>RCP 150</td>
<td>Clinical Practice I OR</td>
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<tr>
<td>HST 101</td>
<td>Basic Skills I** OR</td>
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<td>Respiratory Care Practice #</td>
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<td>RCP 175</td>
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<td>RCP 176</td>
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<td>RCP 180</td>
<td>Ventilatory Support AND</td>
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<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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<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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**Recommended Additional Course(s)**

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<tr>
<td>BIO 226</td>
<td>Principles of Microbiology OR</td>
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<tr>
<td>BIO 225</td>
<td>Medical Microbiology</td>
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**Technical Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>RCP 110</td>
<td>Cardiopulmonary Anatomy &amp; Physiology</td>
<td>3</td>
</tr>
<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** OR</td>
<td>(2)</td>
</tr>
<tr>
<td>RCP 150</td>
<td>Clinical Practice I OR</td>
<td>2</td>
</tr>
<tr>
<td>HST 101</td>
<td>Basic Skills I** OR</td>
<td>(3)</td>
</tr>
<tr>
<td>RCP 121</td>
<td>Respiratory Care Practice #</td>
<td>(1)</td>
</tr>
<tr>
<td>RCP 175</td>
<td>Clinical Practice II OR</td>
<td>3</td>
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<tr>
<td>RCP 176</td>
<td>Respiratory Care Practice II#</td>
<td>(2)</td>
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<tr>
<td>RCP 180</td>
<td>Ventilatory Support AND</td>
<td>(2)</td>
</tr>
<tr>
<td>RCP 190</td>
<td>Advanced Ventilatory Support OR</td>
<td>2</td>
</tr>
<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>
<td>(4)</td>
</tr>
<tr>
<td>RCP 200</td>
<td>Clinical Practices III OR</td>
<td>3</td>
</tr>
<tr>
<td>RCP 201</td>
<td>Respiratory Care Practice III#</td>
<td>(2)</td>
</tr>
<tr>
<td>RCP 204</td>
<td>Emergency and Special Procedures AND</td>
<td>3</td>
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</table>
### 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, safes and safe hardware is available.

The Supply Chain Security program provides an overview of the needs and requirements for a safe, secure supply chain. The program looks at threats and offers solutions. The House Select Committee on Homeland Security issued a comprehensive assessment (February 2004) on the United State’s levels of preparation against terrorist activity. The Committee concluded in part “Pathways to the United States by land, sea and air are insecure.” Security throughout transportation, storage, shipping and receiving of cargo is addressed in this program. The concept of proactive versus reactive, planning and the overall needs of a security operation are discussed. Specific security systems are discussed, as well as the creation and implementation of security policies. Basic security equipment and procedures, including perimeter protection, intrusion detection, security surveys and CCTV systems are covered, as well as management issues to include terrorism, crisis management and basic guard force management. A Security Design section of the program looks at ways to maximize the security benefit within operational (financial and aesthetic) constraints.

The Antiterrorism Physical Security Specialist program provides a comprehensive overview of a physical security program. Topics covered are access control systems; intrusion detection, both interior and exterior; crisis management; national incident management systems; contracting guard forces; international and domestic terrorism and their threat to America; security surveys/security audits; managing a security operation; IIT security; CCTV; contingency planning; locks and locking devices; workplace violence; and perimeter security.

The Safe & Lock Technician program provides a comprehensive hands-on knowledge of safes and locks. This program will provide the technician with the training to service, maintain and troubleshoot safes and locks. Topics covered are electronic access control systems, safe lock servicing – electronic and mechanical, combination lock manipulation, basic safe penetration, locks and locking devices, safe and safe hardware, security hardware, electronic and mechanical door locks.

For all programs: Students will be required to undergo a criminal background investigation. If a student is presently employed by a law enforcement or federal agency that requires criminal checks, this requirement may be waived by LSI.

### Certificates

#### Electrocardiographic and Cardiac Monitoring Technician - 5109083049

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 137</td>
<td>Human Anatomy &amp; Physiology I*</td>
<td>4</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II*</td>
<td>4</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra* OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 146</td>
<td>Contemporary College Mathematics* OR</td>
<td>3</td>
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<tr>
<td>MAT 110</td>
<td>Applied Mathematics*</td>
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</table>

**Total Credits: 17-21**

*General Education Course

**May not be accepted at Elizabethtown CTC or Madisonville CC for Respiratory Care degree program credit.

+ RCP courses currently only offered and required at BCTC for degree completion at that college.

### Polysomnographic Technologist - 5109083069

<table>
<thead>
<tr>
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<th>Title</th>
<th>Credit</th>
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</thead>
<tbody>
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<td>Human Anatomy &amp; Physiology I*</td>
<td>4</td>
</tr>
<tr>
<td>BIO 139</td>
<td>Human Anatomy &amp; Physiology II*</td>
<td>4</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra* OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 146</td>
<td>Contemporary College Mathematics* OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics*</td>
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<tr>
<td>AHS 115</td>
<td>Medical Terminology</td>
<td>3</td>
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**Total Credits: 17**

*General Education Course

**May not be accepted at Elizabethtown CTC or Madisonville CC for Respiratory Care degree program credit.

### Technical Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>PSG 100</td>
<td>Introduction to Polysomnography</td>
<td>2</td>
</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>
<td>1</td>
</tr>
<tr>
<td>PSG 115</td>
<td>Polysomnography Practice I</td>
<td>3</td>
</tr>
<tr>
<td>PSG 130</td>
<td>Polysomnography Level II</td>
<td>3</td>
</tr>
<tr>
<td>PSG 131</td>
<td>Polysomnography Lab II</td>
<td>1</td>
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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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**Total Credits: 36**

*General Education Course

### Safe & Lock Technician - 4301123040

<table>
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<tr>
<th>Course</th>
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<tr>
<td>LSI 150</td>
<td>Professional Industrial Locksmithing</td>
<td>4</td>
</tr>
<tr>
<td>LSI 153</td>
<td>Safe Lock Servicing</td>
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**Total Credits: 16**

*General Education Course
Electives: A minimum of 10 credit hours must be taken from this list of electives.

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tr>
<td>LSI 110</td>
<td>Security Surveys</td>
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<tr>
<td>LSI 130</td>
<td>GSA: Lock, Vault &amp; Container</td>
<td>4</td>
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<tr>
<td>LSI 151</td>
<td>Basic Safe Penetration</td>
<td>1</td>
</tr>
<tr>
<td>LSI 152</td>
<td>Combination Lock Manipulation</td>
<td>1</td>
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<tr>
<td>LSI 160</td>
<td>Fundamentals of Electricity</td>
<td>2</td>
</tr>
<tr>
<td>LSI 170</td>
<td>Electronic Access Control</td>
<td>2</td>
</tr>
<tr>
<td>LSI 182</td>
<td>Managing Security Operations</td>
<td>2</td>
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Security Management Coordinator - 4301123010

(Offered at BLC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>LSI 120</td>
<td>Comprehensive Security Specialist</td>
<td>4</td>
</tr>
<tr>
<td>LSI 140</td>
<td>Managing Terrorism &amp; Other Crises</td>
<td>1</td>
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<tr>
<td>LSI 150</td>
<td>Professional Locksmithing</td>
<td>4</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
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<td>Total Credits</td>
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Electives: A minimum of 3 credit hours must be taken from this list of electives:

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<th>Course Code</th>
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<tbody>
<tr>
<td>LSI 100</td>
<td>Fundamental Principles of Physical Security</td>
<td>2</td>
</tr>
<tr>
<td>LSI 105</td>
<td>Force Protection</td>
<td>3</td>
</tr>
<tr>
<td>LSI 110</td>
<td>Security Surveys</td>
<td>2</td>
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<tr>
<td>LSI 115</td>
<td>Command Security Officer Training</td>
<td>4</td>
</tr>
<tr>
<td>LSI 130</td>
<td>GSA: Locks, Vaults &amp; Containers</td>
<td>4</td>
</tr>
<tr>
<td>LSI 131</td>
<td>GSA: Locks, Vaults &amp; Containers Certified Inspector Training</td>
<td>1</td>
</tr>
<tr>
<td>LSI 151</td>
<td>Basic Safe Penetration</td>
<td>1</td>
</tr>
<tr>
<td>LSI 152</td>
<td>Combination Lock Manipulation</td>
<td>1</td>
</tr>
<tr>
<td>LSI 153</td>
<td>Safe Lock Servicing - Mechanical and Electronic</td>
<td>1</td>
</tr>
<tr>
<td>LSI 160</td>
<td>Fundamentals of Electricity</td>
<td>2</td>
</tr>
<tr>
<td>LSI 170</td>
<td>Electronic Access Control</td>
<td>2</td>
</tr>
<tr>
<td>LSI 180</td>
<td>Security and Crime Prevention Management</td>
<td>1</td>
</tr>
<tr>
<td>LSI 185</td>
<td>Security and Crime Prevention Countermeasures</td>
<td>1</td>
</tr>
<tr>
<td>LSI 190</td>
<td>Security Hardware &amp; Bypass Techniques</td>
<td>1</td>
</tr>
<tr>
<td>LSI 195</td>
<td>Tactical Lock (restricted enrollment)</td>
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</table>

Social Media Marketing

The Social Media Marketing program will provide students who are interested in social media technology, and the specific way it can be utilized for maximizing visibility and functionality within the business sector, a holistic approach to running a social media marketing campaign. This program will provide not only an introduction to social media technology, but also a foundation for students to learn everything from terminology to multi-platform engagement techniques.

Certificate

Social Media Marketing - 1110053009

(Offered at ELC, MDC, SEC)

General Education Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BAS 125</td>
<td>Social Media Marketing: Fundamental Concepts, Skills and Strategies</td>
<td>3</td>
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<tr>
<td>BAS 126</td>
<td>Social Media Marketing: Project Management and Implementation Strategies</td>
<td>3</td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td>6</td>
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</tbody>
</table>

Surgical First Assisting

The Surgical First Assistant provides aid in exposure, hemostasis, and other technical functions that will help the surgeon carry out a safe operation with optimal results for the patient. This role will vary considerably with the surgical operation, specialty area, and type of facility. Clinical skills performed under direct supervision of the surgeon include the following: positioning the patient, preparing the skin, providing visualization of the operative site, utilizing appropriate techniques to assist with hemostasis, participating in volume replacement or auto transfusion techniques as appropriate, utilizing appropriate techniques in the closure of body planes, selecting and applying appropriate wound dressings and providing assistance in securing drainage system to tissue.

This program provides clinical experience built upon classroom instruction in the basic sciences, patient care, aseptic techniques and surgical procedures. Students enrolled in the Surgical First Assistant Program are required to achieve a minimum grade of “C” in each Surgical First Assistant course. Graduates from the program are eligible to take the certifying exams offered by the National Surgical Assistant Association (CSA) or the National Board of Surgical Technologists and Surgical Assistants (CSFA).

Associate in Applied Science

Surgical First Assisting - 5109097039

(Offered at MDC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy and Physiology with Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>MAT 150</td>
<td>College Algebra OR</td>
<td>3</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Applied Mathematics</td>
<td>3</td>
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<tr>
<td>Social/Behavioral Sciences course</td>
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Technical Courses:

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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>SUR 110</td>
<td>Surgical Technology Fundamentals</td>
<td>9</td>
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<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>SUR 201</td>
<td>Surgical Technology Skills Practicum I</td>
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<tr>
<td>SUR 275</td>
<td>Surgical Technology Advanced Clinical Practicum</td>
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<tr>
<td>SUR 280</td>
<td>Surgical Anatomy</td>
<td>5</td>
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<tr>
<td>SUR 284</td>
<td>Principles of Surgical Assisting</td>
<td>3</td>
</tr>
<tr>
<td>SUR 295</td>
<td>Surgical First Assistant Clinical</td>
<td>1</td>
</tr>
<tr>
<td>SUR 282</td>
<td>Perioperative Bioscience</td>
<td>3</td>
</tr>
<tr>
<td>SUR 296</td>
<td>Surgical First Assistant Practicum</td>
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<tr>
<td>SUR 297</td>
<td>Surgical First Assistant Practicum II</td>
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</table>

Total Credit Hours 61-64

For program admission, student must be a certified Surgical Technologist or an RN with operating room experience OR consent of instructor.

For program admission, CPR or BLS certificate must be obtained prior to enrolling in the course; certification must be kept current throughout the program.

NOTE: BIO 137 & BIO 139 may be substituted for BIO 135.

Certificate

Surgical First Assisting - 5109093020

(Offered at MDC)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>SUR 280</td>
<td>Surgical Anatomy</td>
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<tr>
<td>SUR 282</td>
<td>Perioperative Bioscience</td>
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</tr>
<tr>
<td>SUR 284</td>
<td>Principles of Surgical Assisting</td>
<td>3</td>
</tr>
<tr>
<td>SUR 295</td>
<td>Surgical First Assistant Clinical</td>
<td>1</td>
</tr>
<tr>
<td>SUR 296</td>
<td>Surgical First Assistant Practicum</td>
<td>3</td>
</tr>
<tr>
<td>SUR 297</td>
<td>Surgical First Assistant Practicum II</td>
<td>1</td>
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<tr>
<td>Subtotal</td>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

CPR or BLS certificate must also be obtained prior to enrolling in the program; certification must be kept current throughout the program.

For program admission, student must be a certified Surgical Technologist or an RN with operating room experience. Student must provide current documentation of certificate/licensure.
Surgical Technology

Surgical technologists are allied health professionals who are an integral part of the team of medical practitioners providing surgical care to patients in a variety of settings such as medical offices, out-patient clinics, and the operating room.

The surgical technologist works under medical supervision to facilitate the safe and effective conduct of invasive surgical procedures. This individual works under the supervision of a surgeon to ensure that the operating room environment is safe, that equipment functions properly, and that the operative procedure is conducted under conditions that maximize patient safety.

A surgical technologist possesses expertise in the theory and application of sterile and aseptic techniques and combines the knowledge of human anatomy, surgical procedures, and implementation tools and technologies to facilitate a physician’s performance of invasive therapeutic and diagnostic procedures.

This program provides clinical experience built upon classroom instruction in the basic sciences, patient care, aseptic techniques and surgical procedures. Students enrolled in the Surgical Technology Program are required to achieve a minimum grade of “C” in each course required for the credential. Students who withdraw from or earn less than a “C” in any course with a Surgical Technology prefix will be dropped from the Surgical Technology program and must reapply for admission. CPR (for Healthcare Providers) course must be completed prior to the first surgical technology skills practicum course and must remain current throughout the Surgical Technology program.

Students who have completed program requirements must sit for the certifying examination offered by the National Board on Certification for Surgical Technology and Surgical Assisting (NBSTSA), 6 West Dry Creek Circle, Suite 100, Littleton, CO 80120; Phone: (800) 707 0057; www.nbstsa.org.

The following programs hold accreditation from the Commission on Accreditation of Allied Health Education Programs (CAAHEP) 25400 US Highway 19 N, Suite 158, Clearwater Florida 33763; (727) 210 2350; www.caahep.org who accredits programs upon the recommendation of the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA), 6 West Dry Creek Circle, Suite 110; Littleton, CO 80120; Phone: (303) 694 9262; www.arcst.org.; Ashland Community and Technical College Bluegrass Community and Technical College, Hazard Community and Technical College, Jefferson Community and Technical College, Madisonville Community College, Owensboro Community and Technical College, Somerset Community College, Southcentral Kentucky Community and Technical College, Southeast Kentucky Community and Technical College, and West Kentucky Community and Technical College.

Associate in Applied Science

(Offered at BLC, BSC, HPC, HZC, JFC, MDC, OWC, SEC, SKY, SMCHC, WKC)

General Education:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</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>
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<td>ENG 101</td>
<td>Writing 1</td>
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<tr>
<td>Quantitative Reasoning Course: MAT 110 or Higher</td>
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<tr>
<td>Social/Behavioral Sciences</td>
<td>3</td>
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<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>3</td>
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<td>AHS 115</td>
<td>Medical Terminology OR</td>
<td>3</td>
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<tr>
<td>MIT 103</td>
<td>Medical Office Terminology</td>
<td>3</td>
</tr>
<tr>
<td>SUR 100</td>
<td>Surgical Technology Fundamentals/Theory OR</td>
<td>12</td>
</tr>
<tr>
<td>SUR 109</td>
<td>Introduction to Surgical Technology AND</td>
<td>3</td>
</tr>
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<td>SUR 110</td>
<td>Surgical Technology Fundamentals</td>
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</tr>
<tr>
<td>BIO 225</td>
<td>Medical Microbiology OR</td>
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<tr>
<td>BIO 226</td>
<td>Principles of Microbiology OR</td>
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</tr>
<tr>
<td>BIO 227</td>
<td>Principles of Microbiology with Laboratory OR</td>
<td>5</td>
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<tr>
<td>BIO 118</td>
<td>Microbes and Society</td>
<td>3</td>
</tr>
<tr>
<td>SUR 101</td>
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</tr>
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<td>SUR 130</td>
<td>Principles of Surgical Pharmacology</td>
<td>2</td>
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<td>SUR 200</td>
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Subtotal 40-45

A total of 10 credit hours must be completed from the following practicum courses:

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<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 40-45

Elective(s):

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<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>SUR 103</td>
<td>Surgical Technology Didactic Practicum</td>
<td>1</td>
</tr>
<tr>
<td>SUR 270</td>
<td>Pathophysiology for Surgical Technology OR</td>
<td>2</td>
</tr>
<tr>
<td>MAI 200</td>
<td>Pathophysiology for Medical Assistants</td>
<td>3</td>
</tr>
<tr>
<td>BAS 120</td>
<td>Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>MNA 100</td>
<td>Medicaid Nurse Aide OR</td>
<td>3</td>
</tr>
<tr>
<td>NAA 100</td>
<td>Nursing Assistant Skills I</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: CPR certificate must be obtained prior to enrolling in the first Surgical Technology skills practicum course and must remain current throughout the Surgical Technology Program.

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

Diploma

Surgical Technologist - 5109094019

(Offered at ASC, BSC, JFC, MDC, OWC, SEC)

General Education:

<table>
<thead>
<tr>
<th>Area 1</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing 1</td>
<td>3</td>
</tr>
</tbody>
</table>

Area 2

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 135</td>
<td>Basic Anatomy &amp; Physiology with Lab 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 OR</td>
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</table>

Subtotal 7-11

Technical Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek &amp; Latin OR</td>
<td>3</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology OR</td>
<td>3</td>
</tr>
<tr>
<td>MIT 103</td>
<td>Medical Office Terminology</td>
<td>3</td>
</tr>
<tr>
<td>SUR 109</td>
<td>Introduction to Surgical Technology AND</td>
<td>3</td>
</tr>
<tr>
<td>SUR 110</td>
<td>Surgical Technology Fundamentals OR</td>
<td>9</td>
</tr>
<tr>
<td>SUR 101</td>
<td>Surgical Technology Fundamentals Lab</td>
<td>1</td>
</tr>
<tr>
<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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</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>
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Subtotal 60-65

207
A total of 10 credit hours must be completed from the following practicum courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUR 125</td>
<td>Surgical Technology Skills Practicum I</td>
<td>2-3</td>
</tr>
<tr>
<td>SUR 121</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>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td><strong>38-48</strong></td>
</tr>
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**Total Credits** 45-59

**Elective(s):**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUR 103</td>
<td>Surgical Technology Didactic Practicum</td>
<td>(1)</td>
</tr>
<tr>
<td>SUR 270</td>
<td>Pathophysiology for the Surgical Technologist OR</td>
<td>(2)</td>
</tr>
<tr>
<td>MAI 200</td>
<td>Pathophysiology for the Medical Assistant</td>
<td>(3)</td>
</tr>
<tr>
<td>EFM 100</td>
<td>Personal Financial Management OR</td>
<td>(3)</td>
</tr>
<tr>
<td>BAS 120</td>
<td>Personal Finance</td>
<td>(3)</td>
</tr>
<tr>
<td>MNA 100</td>
<td>Medicaid Nurse Aide OR</td>
<td>(3)</td>
</tr>
<tr>
<td>NAA 100</td>
<td>Nursing Assistant Skills I</td>
<td>(3)</td>
</tr>
</tbody>
</table>

Note:

- CPR certificate must be obtained prior to enrolling in the first Surgical Technology course and certification must be kept current throughout the Program.
- Digital literacy must be demonstrated either by competency exam or by completing a digital literacy course.
- Students successfully completing SUR 109 and SUR 110 are not required to take a microbiology course for the diploma option.

**Certificates**

**Surveying and Mapping Technology**

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>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
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<td></td>
<td>Humanities</td>
<td>3</td>
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<tr>
<td>MAT 116</td>
<td>Technical Mathematics or</td>
<td>3</td>
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<tr>
<td></td>
<td>Higher Level Quantitative Reasoning Course</td>
<td>(3)</td>
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<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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**Required Technical Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking</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>
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<td><strong>Subtotal</strong></td>
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**Total Credits 45-59**

**Surveying Technician III - 1511024029**

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking</td>
<td>3</td>
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<tr>
<td>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>
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<td><strong>Subtotal</strong></td>
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**Diploma**

**Surveying Technician I - 1511023059**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking</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></td>
<td>Technical Electives Approved by Program Coordinator</td>
<td>9</td>
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<td><strong>Subtotal</strong></td>
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**Surveying Technician II - 1511023069**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking</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>
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**Certificate**

**Surveying Technician I - 1511023059**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</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>
<tr>
<td></td>
<td>Technical Electives Approved by Program Coordinator</td>
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**Surveying Technician II - 1511023069**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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</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>
<tr>
<td></td>
<td>Technical Electives Approved by Program Coordinator</td>
<td>3</td>
</tr>
<tr>
<td><strong>Certificate Total</strong></td>
<td></td>
<td><strong>12</strong></td>
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</tbody>
</table>
Teaching English to Speakers of Other Languages (TESOL)

This certificate program prepares individuals for entry and advancement within the profession of TESOL as English language teachers. Through nineteen (19) credit hours, students will be introduced to various concepts of what teaching English to speakers of other languages entails. Courses within the program cover how to incorporate dynamic and interactive teaching methods into the lesson plans, how adults acquire a second language, the characteristics of English language learners and factors impacting learning outcomes and teaching best practices with the inclusion of classroom observations and hands-on experience. Students who successfully complete this certificate program are eligible and certified to domestically teach English to speakers of other languages at community organizations, such as Kentucky Refugee Ministries, or internationally teach English to speakers of other languages via programs, such as TaLK.

Certificate
TESOL - 1315013029
(Offered at )

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 160</td>
<td>Cultural Diversity in the Modern World</td>
<td>3</td>
</tr>
<tr>
<td>COM 254</td>
<td>Introduction to Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td>TES 100</td>
<td>Introduction to TESOL</td>
<td>3</td>
</tr>
<tr>
<td>TES 101</td>
<td>Second Language Literacy &amp; Acquisition</td>
<td>3</td>
</tr>
<tr>
<td>TES 102</td>
<td>Methods &amp; Practices</td>
<td>3</td>
</tr>
<tr>
<td>TES 103</td>
<td>Second Language Teaching/Lab</td>
<td>4</td>
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<tr>
<td><strong>Total</strong></td>
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</tr>
</tbody>
</table>

Technical Theatre

The Technical Theatre Certificate will prepare students for an entry level position as a theatre technician and/or advanced technical theatre studies.

Certificates
Technical Theatre - 5005013019
(Offered at OWC)

<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>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>19</strong></td>
</tr>
</tbody>
</table>

Telehealth Technician Associate

Telemedicine is the provision of health care over a distance. This occurs through live interactive (synchronous) and store and forward (asynchronous) telemedicine using high-speed communication links, videoconference equipment and other communication devices, medical peripheral devices such as electronic stethoscopes to facilitate secure connectivity between patients and providers.

Certificate
Telehealth Technician Associate - 5107073069
(Offered at HZC, SEC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HST 102</td>
<td>Health Care Delivery and Management</td>
<td>3</td>
</tr>
<tr>
<td>HST 103</td>
<td>Health Care Communications</td>
<td>2</td>
</tr>
<tr>
<td>HST 104</td>
<td>Health Care Basic Skills with Clinical</td>
<td>3.5</td>
</tr>
<tr>
<td>AHS 115</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>TEL 200</td>
<td>Telehealth Patient Care</td>
<td>4.5</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>16</strong></td>
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</tbody>
</table>

Truck Driver Training

Prepares students to drive tractor trailer trucks, apply their knowledge of commercial driving regulations, prepare receipts for loads, maintain truck logs according to state and federal regulations, load and unload trucks, inspect trucks and their equipment. The Transportation Specialist certificate will also include the operation of basic heavy equipment in addition to the routine and minor maintenance and repairs on diesel engines.

Certificates
Tractor Trailer, CDLA I - 4902053010
(Offered at ASC, BSC, ELC, GTW, HPC, HZC, MDC, SMC, SKY, WKC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRI 100</td>
<td>Truck Driving</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>6</strong></td>
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Tractor Trailer, CDLA II - 4902053029
(Offered at JFC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TNT 110</td>
<td>Basic Operations</td>
<td>3</td>
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<tr>
<td>TNT 120</td>
<td>Safe Operating Practices</td>
<td>3</td>
</tr>
<tr>
<td>TNT 210</td>
<td>Advanced Operating Practices</td>
<td>1</td>
</tr>
<tr>
<td>TNT 220</td>
<td>Vehicle Systems and Reporting Malfunction</td>
<td>3</td>
</tr>
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<td>TNT 250</td>
<td>Internship</td>
<td>4</td>
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<td><strong>Total Credits</strong></td>
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Tractor Trailer, CDLA III - 4902053039
(Offered at BSC)

<table>
<thead>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>TRK 110</td>
<td>Driver Preparation</td>
<td>3</td>
</tr>
<tr>
<td>TRK 120</td>
<td>Trucking Safety</td>
<td>3</td>
</tr>
<tr>
<td>TRK 130</td>
<td>Instrumentation</td>
<td>3</td>
</tr>
<tr>
<td>TRK 140</td>
<td>Systems Check</td>
<td>1</td>
</tr>
<tr>
<td>TRK 150</td>
<td>CDL Training</td>
<td>3</td>
</tr>
<tr>
<td>TRK 160</td>
<td>Combined Driving</td>
<td>2</td>
</tr>
<tr>
<td>TRK 216</td>
<td>Advanced Driver Preparation</td>
<td>3</td>
</tr>
<tr>
<td>TRK 220</td>
<td>Advanced Trucking Safety</td>
<td>3</td>
</tr>
<tr>
<td>TRK 230</td>
<td>Advanced Controls</td>
<td>1</td>
</tr>
<tr>
<td>TRK 240</td>
<td>System Inspections</td>
<td>1</td>
</tr>
<tr>
<td>TRK 250</td>
<td>Advanced CDL Preparation</td>
<td>1</td>
</tr>
<tr>
<td>TRK 260</td>
<td>Advanced Combined Driving</td>
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<tr>
<td><strong>Total Credits</strong></td>
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**Unmanned Systems Technology**

The rapidly growing field of Unmanned Systems Technology (UST) enables students to gain knowledge and skills in advanced drone operator, first responder specialist, unmanned systems technician, and GIS/unmanned Systems Specialist. This program prepares students for entry and advancement within the unmanned systems technology workforce (aerial, land, and water vehicles/robotics) field and to pilot unmanned aircrafts for private and commercial industries. The program also requires students to make reasonable predictions of how the current unmanned systems technology will integrate into existing careers.

### General Education Core:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EN 101</td>
<td>Writing 1</td>
<td>3</td>
</tr>
<tr>
<td>COM 181</td>
<td>Basic Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>MAT 116</td>
<td>Technical Mathematics or higher (MAT 150 preferred)</td>
<td>3</td>
</tr>
<tr>
<td>POL 101</td>
<td>American Government</td>
<td>3</td>
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<tr>
<td></td>
<td>Natural Sciences (Physics preferred except PHY 160)</td>
<td>3</td>
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<tr>
<td></td>
<td>Heritage/Humanities</td>
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<td></td>
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</tbody>
</table>

### Technical Core:

- **CIT 105** Introduction to Computers OR (3)
- **DPT 100** Introduction to 3D Print Technology OR (3)
- **CAD 100** Introduction to Computer Aided Design (3)
- **BAS 282** Principles of Marketing (3)
- **BAS 267** Introduction to Business Law (3)
- **UST 100** Intro to Unmanned Systems Technology (3)
- **UST 105** Unmanned Systems Safety and Regulations (3)
- **UST 107** Commercial Drone Applications (3)
- **UST 299** UST Capstone Studies (1)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
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### Advanced Drone Operator Track - 470609701

(Expressed at HZC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 125</td>
<td>Introduction to Digital Maps</td>
<td>3</td>
</tr>
<tr>
<td>UST 221</td>
<td>Crew Resource Management</td>
<td>1</td>
</tr>
<tr>
<td>UST 290</td>
<td>UST Flight Mastery</td>
<td>2</td>
</tr>
<tr>
<td>UST 295</td>
<td>UST Learning Experience (Internship, etc.)</td>
<td>3</td>
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<tr>
<td></td>
<td>UST Electives</td>
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<td><strong>Subtotal</strong></td>
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</table>

**Total Credits: 60**

### First Responder Specialist Track - 470609702

(Expressed at HZC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HSM 110</td>
<td>Introduction to Emergency Management OR</td>
<td>3</td>
</tr>
<tr>
<td>FRS 204</td>
<td>EMT First Responder</td>
<td>(3)</td>
</tr>
<tr>
<td>CIT 125</td>
<td>Intro to Digital Maps</td>
<td>3</td>
</tr>
<tr>
<td>GIS 145</td>
<td>Remote Sensing</td>
<td>3</td>
</tr>
<tr>
<td>UST 220</td>
<td>First Responder Applications</td>
<td>2</td>
</tr>
<tr>
<td>UST 221</td>
<td>Crew Resource Management</td>
<td>1</td>
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<td>UST Electives</td>
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<td><strong>Subtotal</strong></td>
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**Total Credits: 60**

### Unmanned Systems Technician Track - 470609703

(Expressed at HZC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CIT 111</td>
<td>Computer Hardware and Software Maintenance</td>
<td>4</td>
</tr>
<tr>
<td>CIT 160</td>
<td>Introduction to Networking</td>
<td>4</td>
</tr>
<tr>
<td>DPT 102</td>
<td>3D Printing Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>UST 200</td>
<td>Drone Fabrication and Repair</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>UST Electives</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>(take CAD 100 or CIT 105 if not taken in core)</td>
<td></td>
</tr>
<tr>
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**Total Credits: 60**

### GIS/Unmanned Systems Specialist Track - 470609704

(Expressed at HZC)

<table>
<thead>
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<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CIT 125</td>
<td>Intro to Digital Maps</td>
<td>3</td>
</tr>
<tr>
<td>CIT 225</td>
<td>GIS Data Analysis</td>
<td>3</td>
</tr>
<tr>
<td>GIS 145</td>
<td>Remote Sensing</td>
<td>3</td>
</tr>
<tr>
<td>GIS 255</td>
<td>Geospatial Programming</td>
<td>3</td>
</tr>
<tr>
<td>GIS 260</td>
<td>Geospatial Web Mapping</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>UST Electives</td>
<td>8</td>
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<tr>
<td></td>
<td><strong>Subtotal</strong></td>
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**Total Credits: 60**

### Certificates

**Drone Operator Specialist - 4706093039**

(Expressed at HZC, JFC, MDC, MYC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
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<td>Introduction to Computers OR</td>
<td>3</td>
</tr>
<tr>
<td>DPT 100</td>
<td>Introduction to 3D Print Technology</td>
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<tr>
<td>UST 100</td>
<td>Intro to Unmanned Systems Technology</td>
<td>3</td>
</tr>
<tr>
<td>UST 105</td>
<td>Unmanned Systems Safety and Regulations</td>
<td>3</td>
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<tr>
<td>UST 290</td>
<td>UST Flight Mastery</td>
<td>3</td>
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<tr>
<td>UST 299</td>
<td>UST Capstone Studies</td>
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**First Responder Specialist - 4706093049**

(Expressed at HZC, JFC, MDC, MYC)

<table>
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<th>Course</th>
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<td>DPT 100</td>
<td>Introduction to 3D Print Technology</td>
<td>(3)</td>
</tr>
<tr>
<td>CIT 125</td>
<td>Intro to Digital Maps</td>
<td>3</td>
</tr>
<tr>
<td>GIS 145</td>
<td>Remote Sensing</td>
<td>3</td>
</tr>
<tr>
<td>HSM 110</td>
<td>Introduction to Emergency Management OR</td>
<td>3</td>
</tr>
<tr>
<td>FRS 204</td>
<td>EMT First Responder</td>
<td>(3)</td>
</tr>
<tr>
<td>UST 105</td>
<td>Unmanned Systems Safety and Regulations</td>
<td>3</td>
</tr>
<tr>
<td>UST 107</td>
<td>Commercial Drone Operations</td>
<td>3</td>
</tr>
<tr>
<td>UST 220</td>
<td>First Responder Applications</td>
<td>2</td>
</tr>
<tr>
<td>UST 221</td>
<td>Crew Resource Management</td>
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<tr>
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**GIS/Unmanned Systems Specialist- 4706093059**

(Expressed at HZC, JFC, MDC, MYC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<td>CIT 105</td>
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<td>DPT 100</td>
<td>Introduction to 3D Print Technology</td>
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<tr>
<td>CIT 225</td>
<td>GIS Data Analysis</td>
<td>3</td>
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<tr>
<td>GIS 145</td>
<td>Remote Sensing</td>
<td>3</td>
</tr>
<tr>
<td>UST 105</td>
<td>Unmanned Systems Safety and Regulations</td>
<td>3</td>
</tr>
<tr>
<td>UST 107</td>
<td>Commercial Drone Operations</td>
<td>3</td>
</tr>
<tr>
<td>CIT 125</td>
<td>Intro to Digital Maps</td>
<td>3</td>
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### UST Electives:

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<td>Intro to Computer Aided Design</td>
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<td>CAD 103</td>
<td>CAD Fundamentals</td>
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</tr>
<tr>
<td>CIT 105</td>
<td>Remote Sensing</td>
<td>3</td>
</tr>
<tr>
<td>CIT 111</td>
<td>Computer Hardware and Software Maintenance</td>
<td>4</td>
</tr>
<tr>
<td>CIT 125</td>
<td>Intro to Digital Maps</td>
<td>3</td>
</tr>
<tr>
<td>CIT 160</td>
<td>Introduction to Networking</td>
<td>4</td>
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<tr>
<td>CIT 225</td>
<td>GIS Data Analysis</td>
<td>3</td>
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<tr>
<td>CRJ 100</td>
<td>Intro to Criminal Justice</td>
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<td>DPT 100</td>
<td>Intro to 3D Print Technology</td>
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<td>DPT 102</td>
<td>3D Printing Fundamentals</td>
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<tr>
<td>DPT 150</td>
<td>Intro to Engineering Mechanics for 3D Printing</td>
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<td>DPT 280</td>
<td>Special Projects for 3D Printing, Level I</td>
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<tr>
<td>EET 270</td>
<td>Electrical Motor Controls</td>
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<td>EET 271</td>
<td>Electrical Motor Controls Lab</td>
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<tr>
<td>ELT 110</td>
<td>Circuits I</td>
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<td>GIS 145</td>
<td>Remote Sensing</td>
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<tr>
<td>GIS 255</td>
<td>Geospatial Programming</td>
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<td>GIS 260</td>
<td>Geospatial Web Mapping</td>
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<td>UST 100</td>
<td>Intro to Unmanned Systems Technology</td>
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<tr>
<td>UST 102</td>
<td>UST Career Exploration</td>
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</tr>
<tr>
<td>UST 105</td>
<td>Unmanned Systems Safety and Regulations</td>
<td>3</td>
</tr>
<tr>
<td>UST 107</td>
<td>Commercial Drone Operations</td>
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</tr>
<tr>
<td>UST 170</td>
<td>Drone Media Applications</td>
<td>3</td>
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<tr>
<td>UST 200</td>
<td>Drone Fabrication and Repair</td>
<td>3</td>
</tr>
<tr>
<td>UST 220</td>
<td>First Responder Applications</td>
<td>2</td>
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<tr>
<td>UST 221</td>
<td>Crew Resource Management</td>
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<tr>
<td>UST 290</td>
<td>UST Flight Mastery</td>
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<tr>
<td>UST 295</td>
<td>UST Flight Mastery</td>
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</table>

Other General Education courses that can be taken as UST electives:

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<tr>
<td>ECO 201</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II</td>
<td>3</td>
</tr>
<tr>
<td>MAT 155</td>
<td>Trigonometry</td>
<td>3</td>
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<tr>
<td>PHY 151</td>
<td>Introductory Physics I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>

*Any course from the UST electives list can be used as an elective if not already required in the certificate.*

---

### Veterinary Technology

The Veterinary Technology program will provide students with the skills and knowledge needed to work as a professional veterinary technician. Areas of study include the nine domains included in the CVTEA Essential and Recommended Skills: (1) Office and Hospital Procedures, Client Relations, and Communication; (2) Pharmacy and Pharmacology; (3) Nursing; (4) Anesthesia; (5) Surgical Nursing; (6) Laboratory Procedures; (7) Imaging; (8) Laboratory Animal Procedures; and (9) Avian, Exotic, & Small Mammals Procedures. The Veterinary Technology program will provide students with “real world” clinical and lab experiences to develop the skills needed to become a valued professional in the field.

Note: Hours Exception (69-72 for the A.A.S.) approved by the KCTCS Board of Regents in June 2013.

### Associate in Applied Science

**Veterinary Technology**

(Offered at OWI)

#### General Education

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Technical Mathematics OR</td>
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<tr>
<td>MAT 150</td>
<td>College Algebra</td>
<td>(3)</td>
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<tr>
<td>BIO 112</td>
<td>Introduction to Biology</td>
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<tr>
<td>BIO 113</td>
<td>Introduction to Biology Lab</td>
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<td>COM 252</td>
<td>Introduction to Interpersonal Communication</td>
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**Required/Technical Courses**

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<tr>
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<td>CIT 105</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>AGR 240</td>
<td>Introduction to Animal Science</td>
<td>3</td>
</tr>
<tr>
<td>AGR 280</td>
<td>Livestock Management</td>
<td>3</td>
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<tr>
<td>AHS 120</td>
<td>Medical Terminology</td>
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<tr>
<td>VET 108</td>
<td>Introduction to Veterinary Technology</td>
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<tr>
<td>VET 112</td>
<td>Veterinary Microbiology</td>
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<tr>
<td>VET 116</td>
<td>Animal Anatomy and Physiology</td>
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<tr>
<td>VET 120</td>
<td>Clinical Practicum I</td>
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<tr>
<td>VET 135</td>
<td>Clinical Procedures I</td>
<td>5</td>
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<tr>
<td>VET 210</td>
<td>Pharmacology</td>
<td>3</td>
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<tr>
<td>VET 220</td>
<td>Parasitology and Clinical Lab Techniques</td>
<td>5</td>
</tr>
<tr>
<td>VET 235</td>
<td>Clinical Procedures II</td>
<td>4</td>
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<tr>
<td>VET 245</td>
<td>Clinical Procedures III</td>
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</tr>
<tr>
<td>VET 250</td>
<td>Clinical Practicum II</td>
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</table>

**Total** 51

**AAS Total** 70
Visual Communication

Four programs are offered under the broader heading of Visual Communication. They are Communication Arts Technology, Design & Technology, Multimedia, and Printing.

Visual Communication: Communication Arts Technology

The Communication Arts Technology program provides students with the knowledge, skills, and a portfolio needed for entry-level employment as a graphic designer, commercial photographer, web designer, videographer, or video editor. These fields involve the use of specialized software combined with creativity, design, and problem solving skills to communicate an effective visual message for TV, web and interactive media, product packaging, and advertising layout. This program focuses on developing the creativity and software skills necessary to be competitive in these fields. Many courses include hands-on lab hours with one-on-one assistance from the instructors. The program is completed with an internship in the student’s specialty field that allows the student to transfer academic skills to a professional environment. Students and graduates of the Communication Arts Technology program have won numerous design, photography, and video awards in the creative industry.

Employment of graphic designers, photographers, web designers, videographers, and video editors is expected to grow as demand for their products continues to increase from advertisers, publishers, video production studios, and computer design firms. Graduates may be employed as graphic designers at newspapers, print shops, advertising agencies, photographic studios, multimedia shops, web design shops, television broadcasting stations, film and video production studios, department stores, corporations or non-profit agencies.

All technical courses must be completed with "C" (2.0) or greater to advance in Visual Communication programs.

Associate in Applied Science

Communication Arts Technology - 5004067019

(Offered at JFC)

General Education Requirements

ENG 101 Writing I ................................................. 3
ART 106 Renaissance Through Modern Art History ...................... 3
MAT 110 Applied Mathematics OR .................................. 3
MAT 146 Contemporary College Mathematics OR ..................... (3)
MAT 150 College Algebra ............................................. (3)
Social/Behavioral Sciences ........................................... 3
Natural Sciences ....................................................... 3
Total General Education Requirements ............................... 15

Core Communication Art Courses

VCC 150 Mac Basics OR any Computer/Digital Literacy equivalent*0.3
VCC 100 Introduction to Visual Communication .......................... 3
ART 110 Drawing I ................................................................ 3
VCA 132 Illustration for Advertising ..................................... 3
VCA 170 Advertising Design I ............................................. 3
VCA 171 Advertising Design II .......................................... 3
VCA 160 Commercial Photography I ..................................... 3
VCA 161 Commercial Photography II .................................... 3
VCC 166 Photoshop Basics .................................................. 3
Subtotal ........................................................................... 24-27

Total Core Communication Arts Courses & Gen Ed .................. 39-42

Advertising Design Track - 500406701

(Offered at JFC)

VCA 106 Creative Typographic Design ................................... 3
VCM 115 2D Animation ..................................................... 3
VCM 220 Webpage Design .................................................. 3
VCA 270 Advertising Design III .......................................... 4
VCA 271 Advertising Design IV ......................................... 4
VCA 290 Folio Seminar ...................................................... 3
VCA 298 Practicum ........................................................... 4
Subtotal ........................................................................... 24

Total Credit Hours for Advertising Design Track .................... 63-66

Commercial Photography Track - 500406702

(Offered at JFC)

VCC 266 Advanced Photoshop ........................................... 3
VCM 115 2D Animation ..................................................... 3
VCM 220 Webpage Design .................................................. 3
VCM 260 Commercial Photography III .................................. 4
VCM 261 Commercial Photography IV .................................. 4
VCA 290 Folio Seminar ...................................................... 3
VCA 298 Practicum ........................................................... 4
Subtotal ........................................................................... 24

Total Credit Hours for Commercial Photography Track .......... 63-66

Digital Filmmaking Track - 500406703

(Offered at JFC)

ENG 207 Beginning Workshop in Imaginative Writing: Scriptwriting ... 3
MUS 120 Music Technology I ............................................... 3
THA 126 Acting I: Fundamentals of Acting ............................. 3
VCA 151 Digital Filmmaking I ............................................. 3
VCA 152 Digital Filmmaking II ............................................. 3
VCA 251 Digital Filmmaking III ......................................... 3
VCA 252 Digital Filmmaking IV ......................................... 3
VCA 290 Folio Seminar ...................................................... 3
VCA 298 Practicum ........................................................... 2
Subtotal ........................................................................... 26

Total Credit Hours for Digital Filmmaking Track 65-68

Webpage Design Track - 500406704

(Offered at JFC)

VCC 205 Introduction to HTML OR ..................................... 3
CTT 155 Web Page Development .......................................... (3)
VCM 220 Webpage Design .................................................. 3
IMD 180 Intermediate Web Design ....................................... 3
VCM 115 2D Animation ..................................................... 3
VCM 230 Advanced Webpage Design .................................. 3
CTT 140 JavaScript I .......................................................... 3
VCA 290 Folio Seminar ...................................................... 3
VCA 298 Practicum ........................................................... 4
Subtotal ........................................................................... 25

Total Credit Hours for Webpage Design Track 64-67

*Either successfully passing computer competency exam or taking an approved computer/digital literacy course.
Visual Communication: Design & Technology

Design & Technology emphasizes creative problem solving and insight into the mix of art, design and technical competence. This program includes a Graphic Design track, a Mixed Media Design track, and a Production Design track, with a core of courses common to all. The core includes general education components essential to a collegiate education and technical courses giving students an introduction to design concepts and computer graphics. In addition to core courses, students will take specialty courses for their selected track.

The Graphic Design track emphasizes several aspects of graphic design and focuses on the development of creative skills and technical skills to design logos, advertising, packaging, and a wide variety of publication materials.

The Mixed Media Design track provides students with a mix of courses within the visual communication program or approved electives that serve the interests and skills of the student. These courses may include web design, animation, printing & graphics production, photography, and video production.

The Production Design track provides students training in the operations of various printing and graphics production equipment, along with finishing and bindery equipment. Students will learn skills to design and produce a wide variety of printed materials, promotional items, and signage; in addition to proper prepress and file preparation procedures.

Students also have a variety of certificates they may earn in the process of completing their AAS degree. These certificates include: Design Assistant, Digital Photography, Graphic Design, Production Design, Mixed Media Design, Screen Printing, Digital Wraps and Entrepreneurial Certificate in Visual Communication.

Prospective employment opportunities are in communication and advertising agencies, news media, printing and signage companies, public relations departments, and other creative services departments and businesses, including web design and video production studios. Students also have many options if they desire to become an entrepreneur in the visual communication field.

All technical courses must be completed with a ‘C’ (2.0) or greater to advance in all Visual Communication programs.
### Diplomas

#### Graphic Design - 5004094059

*(Offered at BSC)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>VCC 100</td>
<td>Introduction to Visual Communication</td>
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<tr>
<td>VCC 106</td>
<td>Typography</td>
<td>3</td>
</tr>
<tr>
<td>VCC 235</td>
<td>Graphic Design I</td>
<td>3</td>
</tr>
<tr>
<td>VCC 245</td>
<td>Graphic Design II</td>
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</tr>
<tr>
<td>VCC 255</td>
<td>Emerging Media Design</td>
<td>3</td>
</tr>
<tr>
<td>VCC 265</td>
<td>Graphic Design III</td>
<td>3</td>
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<tr>
<td>VCC 275</td>
<td>Digital Production OR</td>
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<tr>
<td>VCC 297</td>
<td>Internship</td>
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**Total Credits for Graphic Design Track Diploma** 54

#### Required Technical Core:

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**Subtotal** 6

#### Mixed Media Design Track – 500409402

*(Offered at BSC)*

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<td>VCC 265</td>
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**Subtotal** 18

**Total Credits for Mixed Media Design Track Diploma** 54

#### Production Design Track – 500409403

*(Offered at BSC)*

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**Total Credits for Production Design Track Diploma** 54

### Certificates

#### Entrepreneurial Certificate in Visual Communication - 5004093149

*(Offered at WKY)*

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**Total Credits for Graphic Design Certificate** 30

#### Design Assistant – 5004093019

*(Offered at BSC)*

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**Total Credits for Design Assistant Certificate** 15

#### Digital Photography – 5004093069

*(Offered at BSC, SMC)*

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**Total Credits for Digital Photography Certificate** 12

#### Digital Wraps – 5004093139

*(Offered at WKY)*

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<td>VCC 166</td>
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<td>VCC 200</td>
<td>Illustrator Basics</td>
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**Total Credits for Digital Wraps Certificate** 18

#### Graphic Design - 5004093119

*(Offered at WKY)*

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**Total Credits for Graphic Design Certificate** 30

#### Mixed Media Design – 5004093099

*(Offered at BSC)*

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**Total Credits for Mixed Media Design Certificate** 18
Screen Printing - 5004093129
(Offered at WKY)

VCC 110 Design Concepts .............................................. 3
VCC 125 Computer Graphics I ............................................ 3
VCC 166 Photoshop Basics ................................................. 3
VCC 216 Production Design II OR ...................................... 3
VCP 250 Screen Printing .................................................. (3)
Total Credits for Graphic Design Certificate 12

Production Design Assistant - 5004093109
(Offered at BSC, WKY)

VCC 110 Design Concepts .............................................. 3
VCC 125 Computer Graphics I ............................................ 3
VCC 166 Photoshop Basics ................................................. 3
VCC 200 Illustrator Basics .................................................. 3
VCC 214 Production Design I .............................................. 3
Total Credits for Production Design Assistant Certificate 15

*Approved Technical Electives
VCA 102 Fundamentals of Drawing ...................................... 3
VCA 105 Drawing Concepts ................................................ 3
VCA 106 Creative Typographical Design ............................... 3
VCA 108 Digital Color Theory + ......................................... 3
VCA 120 Digital Photography I .......................................... 3
VCA 131 Digital Photography II ......................................... 3
VCA 132 Illustration for Advertising .................................... 3
VCA 151 Digital Filmmaking I ............................................. 3
VCA 152 Digital Filmmaking II ............................................ 3
VCA 160 Commercial Photography I ..................................... 3
VCA 161 Commercial Photography II .................................... 3
VCA 170 Advertising Design I ............................................. 3
VCA 171 Advertising Design II ............................................ 3
VCA 240 Package Design .................................................... 3
VCA 250 Advertising Design .............................................. 3
VCA 251 Digital Filmmaking III ........................................... 3
VCA 252 Digital Filmmaking IV ........................................... 3
VCA 255 Corporate Design ................................................ 3
VCA 260 Commercial Photography III .................................. 4
VCA 261 Commercial Photography IV .................................. 4
VCA 270 Advertising Design III .......................................... 4
VCA 271 Advertising Design IV .......................................... 4
VCA 280 Professional Portfolio Development+ ....................... 3
VCC 100 Introduction to Visual Communication+ .................. 3
VCC 105 Fundamentals of Typography ................................ 3
VCC 106 Typography+ ..................................................... 3
VCC 110 Design Concepts+ ............................................... 3
VCC 115 Strategic Concepts .............................................. 3
VCC 125 Computer Graphics III+ ...................................... 3
VCC 135 Photo Editing for Photographers ............................ 3
VCC 150 Mac Basics** ...................................................... 3
VCC 166 Photoshop Basics+ .............................................. 3
VCC 200 Illustrator Basics+ ............................................... 3
VCC 210 Advanced Computer Illustration ............................. 3
VCC 212 Vinyl Graphics and Applications ............................. 3
VCC 214 Production Design I ............................................ 3
VCC 216 Production Design II ............................................ 3
VCC 218 Production Design III .......................................... 3
VCC 220 InDesign Basics+ ................................................ 3
VCC 230 Advanced InDesign ............................................. 3
VCC 235 Graphic Design I .................................................. 3
VCC 245 Graphic Design II .................................................. 3
VCC 255 Emerging Media Design ....................................... 3
VCC 260 Computer Graphics II ........................................... 3
VCC 265 Graphic Design III ............................................... 3
VCC 266 Advanced Photoshop ............................................ 3
VCC 270 Acrobat Basics .................................................... 3
VCC 275 Digital Production .............................................. 3
VCC 285 Production Design IV .......................................... 3
VCC 297 Internship+ ....................................................... 3
VCC 298 Practicum .......................................................... 3
VCM 110 Fundamentals of Animation .................................. 3
VCM 115 2-D Animation ................................................... 3
VCM 125 Foundations of Video Production .......................... 3
VCM 140 Digital Video ..................................................... 3
VCM 150 Audio Production I .............................................. 3
VCM 205 Introduction to HTML ......................................... 3
VCM 210 3-D Animation ................................................... 3
VCM 215 After Effects ........................................................ 3
VCM 220 Webpage Design ................................................ 3
VCM 225 Advanced 3-D Animation .................................... 3
VCM 230 Advanced Webpage Design .................................. 3
VCM 240 Advanced Digital Video ....................................... 3
VCP 250 Screen Printing ................................................... 3
VCP 255 Special Topics Lab ................................................. 3
VCP 285 Electronic Prepress .............................................. 3
COE 199 Cooperative Education ...................................... 3
ART 110 Drawing I .......................................................... 3
ART 112 2-Dimensional Design ....................................... 3
IMD 133 Beginning Web Design ...................................... 3
IMD 180 Intermediate Web Design .................................... 3
IMD 230 Advanced Web Design ....................................... 3
IMD 232 Web Design with Adobe Dreamweaver ................. 3
IMD 240 Multimedia Development for the Web .................. 3
IMD 250 Digital Video Editing I ........................................ 3
IMD 255 Digital Video Editing II ...................................... 3
IMD 258 Visual Effects for Video ....................................... 3

**Approved for Digital Literacy
+CORE courses

Visual Communication: Multimedia

The Visual Communication: Multimedia program provides students the necessary skills to prepare and produce a wide variety of multimedia presentations. This program includes tracks in Animation, Web Design, Digital Design, Video Production, and Multimedia. The core includes general education components essential to a collegiate education and technical courses giving students an introduction to typography, design concepts, color theory, and computer graphics. In addition to core courses, students will take specialty courses for their selected track.

Prospective employment opportunities are in advertising agencies, graphic design studios, news media, printing and signage companies, department stores, and other creative services departments and businesses, including web design and video production studios.

All technical courses must be completed with "C" (2.0) or greater to advance in all Visual Communication programs.

Associate in Applied Science

Multimedia - 1003047019
(Offered at HZC, SMC, WKY)

General Education Requirements:

Quantitative Reasoning .................................................. 3
Natural Sciences ........................................................... 3
Social /Behavioral Sciences ............................................ 3
Heritage /Humanities ..................................................... 3
ENG 101 Writing I .......................................................... 3
Subtotal 15
### Required Technical Core

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**Subtotal**: 63

### Animation Track - 100304701

(Offered at)

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*Approved Technical Electives: 3

**Subtotal**: 15

**Total Credits for AAS: Multimedia - Animation Track**: 63

### Digital Design Track - 100304703

(Offered at SMC, WKC)

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**Subtotal**: 15

**Total Credits for AAS: Multimedia - Digital Design Track**: 63

### Multimedia Track – 100304706

(Offered at HZC, WKC)

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*Approved Technical Electives: 9

**Subtotal**: 15

**Total Credits for AAS: Multimedia – Multimedia Track**: 63

### Video Production Track - 100304705

(Offered at HZC, WKC)

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*Approved Technical Elective: 3

**Subtotal**: 15

**Total Credits for AAS: Multimedia – Video Production Track**: 63

### Web Design Track - 100304702

(Offered at HZC, WKC)

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*Approved Technical Electives: 9

**Subtotal**: 15

**Total Credits for AAS: Multimedia - Web Design Track**: 63

## Diploma

### Multimedia - 1003044019

(Offered at HZC, SMC, WKC)

### General Education Requirements

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**Subtotal**: 6

### Required Technical Core

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**Subtotal**: 33

### Animation Track - 100304403

(Offered at)

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*Approved Technical Elective: 3

**Subtotal**: 15

**Total for Animation Track**: 54

### Digital Design Track - 100304404

(Offered at SMC, WKC)

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**Subtotal**: 15

**Total for Digital Design Diploma**: 54

### Multimedia Track - 100304401

(Offered at WKC)

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<td>Webpage Design</td>
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*Approved Technical Elective: 9

**Subtotal**: 15

**Total for Multimedia Track**: 54

### Video Production Track - 100304406

(Offered at HZC, WKC)

<table>
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<tr>
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<tr>
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<td>Digital Video</td>
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<td>VCM 215</td>
<td>After Effects</td>
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<td>VCM 240</td>
<td>Advanced Digital Video</td>
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*Approved Technical Elective: 3

**Subtotal**: 15

**Total for Video Production Track**: 54
### Web Design Track - 100304402
*(Offered at WKC)*

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<td>Advanced Webpage Design</td>
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### Animation - 1003043029
*(Offered at SMG)*

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<td>VCC 106</td>
<td>Typography</td>
<td>3</td>
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<tr>
<td>VCA 108</td>
<td>Color Theory</td>
<td>3</td>
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<td>VCC 110</td>
<td>Design Concepts</td>
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<tr>
<td>VCC 125</td>
<td>Computer Graphics I**</td>
<td>3</td>
</tr>
<tr>
<td>VCC 166</td>
<td>Photoshop Basics</td>
<td>3</td>
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<td>VCM 115</td>
<td>2-D Animation</td>
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<td>VCM 210</td>
<td>3-D Animation</td>
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### Audio Production – 1003043079
*(Offered at HZC, WKY)*

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### Digital Design - 1003043059
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<td>Introduction to Visual Communication</td>
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<td>VCC 106</td>
<td>Typography</td>
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<td>VCC 166</td>
<td>Photoshop Basics</td>
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<td>VCC 200</td>
<td>Illustrator Basics</td>
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<td>VCC 220</td>
<td>InDesign Basics</td>
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### Multimedia - 1003043019
*(Offered at HZC, WKY)*

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<td>Design Concepts</td>
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### Video Production- 1003043069
*(Offered at HZC, WKY)*

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<td>VCC 110</td>
<td>Design Concepts</td>
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<td>VCC 125</td>
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<td>VCM 125</td>
<td>Foundations of Video Production</td>
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### Web Design - 1003043039
*(Offered at BSC, HZC, SMC, WKC)*

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<tr>
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<td>VCC 110</td>
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<td>VCC 125</td>
<td>Computer Graphics**</td>
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<td>VCM 220</td>
<td>Website Design</td>
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<td>VCM 230</td>
<td>Advanced Webpage Design</td>
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### Certificates

**Total for Video Production** | **30**  

**Total for Animation** | **30**  

**Total for Audio Production** | **18**  

**Total for Digital Design** | **30**  

**Total for Multimedia** | **30**  

**Total for Video Production** | **30**  

---

*Approved Technical Electives

- ART 110  Drawing I ........................................... 3
- ART 112  2-Dimensional Design ............................. 3
- COE 199  Cooperative Education ................................ 3
- IMD 133  Beginning Web Design ................................ 3
- IMD 180  Intermediate Web Design ............................. 3
- IMD 230  Advanced Web Design .................................. 3
- IMD 232  Web Design with Adobe Dreamweaver ................. 3
- IMD 240  Multimedia Development for the Web ............... 3
- IMD 250  Digital Video Editing I .............................. 3
- IMD 255  Digital Video Editing II ............................. 3
- IMD 258  Visual Effects for Video ............................. 3
- MUS 106  Music in Film ....................................... 3
- VCA 102  Fundamentals of Drawing ....................... 3
- VCA 105  Drawing Concepts .................................. 3
- VCA 106  Creative Typographical Design ..................... 3
- VCA 108  Digital Color Theory + ............................. 3
- VCA 120  Digital Photography I ............................... 3
- VCA 131  Digital Photography II ................................ 3
- VCA 132  Illustration for Advertising ..................... 3
- VCA 151  Digital Filmmaking I ................................. 3
- VCA 152  Digital Filmmaking II ................................ 3
- VCA 160  Commercial Photography I ............................ 3
- VCA 161  Commercial Photography II ........................... 3
- VCA 170  Advertising Design I ................................ 3
- VCA 171  Advertising Design II ................................ 3
- VCA 249  Advertising Design III .............................. 3
- VCA 250  Advertising Design IV ................................ 3
- VCA 251  Digital Filmmaking III ............................... 3
- VCA 252  Digital Filmmaking IV ................................ 3
- VCA 255  Corporate Design ..................................... 3
- VCA 260  Commercial Photography III ........................... 3
- VCA 261  Commercial Photography IV ............................ 3
- VCA 270  Advertising Design III ............................... 3
- VCA 271  Advertising Design IV ................................ 3
- VCA 280  Professional Portfolio Development .................. 3
- VCC 100  Introduction to Visual Communication+ .......... 3
- VCC 105  Fundamentals of Typography ....................... 3
- VCC 106  Typography+ ......................................... 3
- VCC 110  Design Concepts+ .................................. 3
- VCC 115  Strategic Concepts ................................ 3
- VCC 125  Computer Graphics**+ ............................... 3
- VCC 135  Photo Editing for Photographers .................. 3
- VCC 150  Mac Basics** ........................................ 3
- VCC 166  Photoshop Basics+ .................................. 3
- VCC 200  Illustrator Basics+ .................................. 3
- VCC 210  Advanced Computer Illustration .................... 3
- VCC 212  Vinyl Graphics and Applications ................... 3
- VCC 214  Production Design I ................................ 3
- VCC 216  Production Design II ................................ 3
- VCC 218  Production Design III ................................ 3
- VCC 220  InDesign Basics** .................................. 3
- VCC 230  Advanced InDesign .................................... 3

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217
Digital Production Artist - 1003014019
(Preferred at BSC, SMC)

General Education Requirements
Written Communication OR .................................................. 3
Oral Communications OR ........................................................ 3
Humanities/Heritage .............................................................. (3)
Quantitative Reasoning OR ...................................................... 3
Natural Sciences ................................................................. (3)
Social/Behavioral Sciences ......................................................... 3
Subtotal .................................................................................. 6

Technical or Support Courses
Digital Literacy ........................................................................ 0-3
VCA 108 Digital Color Theory .................................................. 3
VCA 120 Digital Photography .................................................... 3
VCC 100 Introduction to Visual Communication ....................... 3
VCC 105 Fundamentals of Typography ................................. (3)
VCC 166 Photoshop Basics .................................................... 3
VCC 200 Computer Illustration ............................................... 3
VCC 220 InDesign Basics ....................................................... 3
VCC 230 Advanced InDesign Basics ........................................ 3
VCP 285 Electronic Prepress ..................................................... 3
COE 199 Cooperative Education OR ........................................ 3
VCC 297 Internship OR ......................................................... (3)
VCC 298 Practicum ................................................................. (3)
Instructor Approved Electives ..................................................... 9
Subtotal .................................................................................. 6

Total for Digital Production Artist Diploma .......................... 48-51

Digital Imaging Assistant - 1003013059
(Preferred at BSC, SMC)

Technical or Support Courses
VCC 166 Photoshop Basics .................................................... 3
VCA 120 Digital Photography .................................................... 3
Approved Electives ................................................................. 6
Total ....................................................................................... 12

Digital Production Assistant - 1003013019
(Preferred at BSC, SMC, WKC)

Technical or Support Courses
VCC 100 Introduction to Visual Communication ....................... 3
VCC 105 Fundamentals of Typography .................................... 3
VCC 166 Photoshop Basics .................................................... 3
VCC 220 InDesign Basics ....................................................... 3
Approved Electives ................................................................. 3
Total ....................................................................................... 15

Visual Communication: Printing

Printing is an option under the broader heading of Visual Communication. The Digital Production Artist curriculum emphasizes technical competence to better prepare students for successful careers in designing and preparing artwork for the print media. Laboratory experiences in page layout, computer illustration, photo imaging, and PDF files are combined with foundation courses in design. All technical courses must be completed with 'C' (2.0) or greater to advance in all Visual Communication programs.

Associate in Applied Science

Printing - 1003017019

General Education Requirements
MAT 110 Applied Mathematics OR ......................................... 3
Higher Level Quantitative Reasoning ....................................... (3)
Natural Sciences .................................................................... 3
Social/Behavioral Sciences ..................................................... 3
Heritage/Humanities ............................................................ 3
ENG 101 Writing I ................................................................. 3
Subtotal .................................................................................. 15

Required Core:
Digital Literacy ........................................................................ 0-3
VCA 108 Digital Color Theory .................................................. 3
VCA 120 Digital Photography .................................................... 3
VCC 100 Introduction to Visual Communication ....................... 3
VCC 105 Fundamentals of Typography ................................. (3)
VCC 166 Photoshop Basics .................................................... 3
VCC 200 Computer Illustration ............................................... 3
VCC 220 InDesign Basics ....................................................... 3
VCC 230 Advanced InDesign Basics ........................................ 3
VCC 266 Advanced Photoshop ............................................... 3
VCC 270 Acrobat Basics ........................................................ 3
VCC 285 Electronic Prepress ..................................................... 3
VCP 285 Electronic Prepress ..................................................... 3
COE 199 Cooperative Education OR ........................................ 3
VCC 297 Internship OR ......................................................... (3)
VCC 298 Practicum ................................................................. (3)
Instructor Approved Electives ..................................................... 9
Subtotal .................................................................................. 45-48

Total for AAS Visual Communication: Printing-Digital Production Artist .......................... 60-63

Diplomas

Digital Production Artist - 1003014019
(Preferred at BSC, SMC)

General Education Requirements
Writing I .............................................................................. 3
Oral Communications OR ........................................................ 3
Humanities/Heritage .............................................................. (3)
Quantitative Reasoning OR ...................................................... 3
Natural Sciences ................................................................. (3)
Social/Behavioral Sciences ......................................................... 3
Subtotal .................................................................................. 6

Technical or Support Courses
Digital Literacy ........................................................................ 0-3
VCA 108 Digital Color Theory .................................................. 3
VCA 120 Digital Photography .................................................... 3
VCC 100 Introduction to Visual Communication ....................... 3
VCC 105 Fundamentals of Typography ................................. (3)
VCC 166 Photoshop Basics .................................................... 3
VCC 198 Computer Illustration ............................................... 3
VCC 285 Electronic Prepress ..................................................... 3
COE 199 Cooperative Education OR ........................................ 3
VCC 297 Internship OR ......................................................... (3)
VCC 298 Practicum ................................................................. (3)
Instructor Approved Electives ..................................................... 9
Subtotal .................................................................................. 42-45

Total for Digital Production Artist Diploma .......................... 48-51

Certificates

Digital Imaging Assistant - 1003013059
(Preferred at BSC, SMC)

Technical or Support Courses
VCC 166 Photoshop Basics .................................................... 3
VCA 120 Digital Photography .................................................... 3
Approved Electives ................................................................. 6
Total ....................................................................................... 12

Digital Production Assistant - 1003013019
(Preferred at BSC, SMC, WKC)

Technical or Support Courses
VCC 100 Introduction to Visual Communication ....................... 3
VCC 105 Fundamentals of Typography .................................... 3
VCC 166 Photoshop Basics .................................................... 3
VCC 220 InDesign Basics ....................................................... 3
Approved Electives ................................................................. 3
Total ....................................................................................... 15
Welding Technology

The Welding Technology Program is dedicated to welding education, technology and student success. Students in this program will learn various welding techniques, careers and the skills needed to be successful in the Welding Technology field. Welding occupations are primarily concerned with joining, surfacing, or repairing structures or parts made of metal or other weldable materials. The skills and knowledge needed to determine the appropriate welding technique required for a specific project and to successfully perform that technique are gained through course work and practical experience. The program offers a wide range of credentials including the Associate in Applied Science Degree, Diploma, and eleven certificates in Welding Technology.

Associate in Applied Science

Welding Technology - 4805087019

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

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<td>COM 252</td>
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<td>COM 181</td>
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General Education Total Credits 18-19

Required

Computer/Digital Literacy ........................................... 0-3
WLD 100 Oxy-Fuel Systems OR ........................................ 2
WLD 110 Cutting Processes ........................................... (2)
WLD 101 Oxy-Fuel Systems Lab OR ................................... 2
WLD 111 Cutting Processes Lab ...................................... (3)
WLD 120 Shielded Metal Arc Welding (SMAW) ................... 2
WLD 121 Welded Metal Arc Welding (SMAW) Fillet Lab ....... 3
WLD 123 Shielded Metal Arc Welding (SMAW) Groove .......... 2
WLD 225 Shielded Metal Arc Welding (SMAW) Open Groove Lab ... (3)
WLD 130 Gas Tungsten Arc Welding (GTAW) ....................... 2
WLD 131 Gas Tungsten Arc Welding (GTAW) Fillet Lab ....... 3
WLD 133 Gas Tungsten Arc Welding (GTAW) Groove Lab ....... 3
WLD 140 Gas Metal Arc Welding (GMAW) ......................... 2
WLD 141 Gas Metal Arc Welding (GMAW) Fillet Lab .......... 3
WLD 143 Gas Metal Arc Welding (GMAW) Groove Lab ........... 3
WLD 170 Blueprint Reading for Welding ......................... 2
WLD 171 Blueprint Reading for Welding Lab .................... 3
WLD 220 Welding Certification ..................................... 2
WLD 221 Welding Certification Lab ................................ 3

Subtotal 42 - 49

Technical Electives .................................................... (1-4)

Total Credits 60 - 68

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

Diploma

Combination Welder - 4805084029

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

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General Education Total Credits 6

Required

Computer/Digital Literacy ........................................... 0-3
WLD 100 Oxy-Fuel Systems OR ........................................ 2
WLD 110 Cutting Processes ........................................... (2)
WLD 101 Oxy-Fuel Systems Lab OR ................................... 2
WLD 111 Cutting Processes Lab ...................................... (3)
WLD 120 Shielded Metal Arc Welding (SMAW) ................... 2
WLD 121 Shielded Metal Arc Welding (SMAW) Fillet Lab ....... 3
WLD 123 Shielded Metal Arc Welding (SMAW) Groove .......... 2
WLD 225 Shielded Metal Arc Welding (SMAW) Open Groove Lab ... (3)
WLD 130 Gas Tungsten Arc Welding (GTAW) ....................... 2
WLD 131 Gas Tungsten Arc Welding (GTAW) Fillet Lab ....... 3
WLD 133 Gas Tungsten Arc Welding (GTAW) Groove Lab ....... 3
WLD 140 Gas Metal Arc Welding (GMAW) ......................... 2
WLD 141 Gas Metal Arc Welding (GMAW) Fillet Lab .......... 3
WLD 143 Gas Metal Arc Welding (GMAW) Groove Lab ........... 3
WLD 170 Blueprint Reading for Welding ......................... 2
WLD 171 Blueprint Reading for Welding Lab .................... 3
WLD 220 Welding Certification ..................................... 2
WLD 221 Welding Certification Lab ................................ 3

Subtotal 42 - 49

Total Credits 48-55

*Technical Electives:

WPP 200 Workplace Principles ....................................... 3
WLD 151 Basic Welding A ............................................ 2
WLD 161 Submerged Arc Welding Lab .............................. 1
WLD 181 Advanced Welding Systems Lab ......................... 1
WLD 147 Flux Cored Arc Welding Lab ............................ 1
WLD 145 Gas Metal Arc Welding Aluminum Lab ................. 1
WLD 251 Welding Automation Lab .................................. 1-6
WLD 253 Pipe Fitting and Template Development Lab ........ 1
WLD 229 Shielded Metal Arc Welding Pipe Lab B ............... 3
WLD 239 Orbital Tube Welding ..................................... 1
WLD 240 Materials Technology ...................................... 2
BEX 100 Basic Electricity for Non-Majors ...................... 3
BEX 101 Basic Electricity Lab for Non-Majors ................. 2
FEX 100 Fundamentals of Electricity for Non-Majors .......... 3

*This list is not all inclusive. Other courses may be approved at the discretion of the program coordinator.
Certificates

ARC Cutter - 4805083099
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SMC, WKC)

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ARC Welder - 4805083029
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

<table>
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AWS National Skills Standards Level I - 4805083089
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

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Gas Metal Arc Welder - 4805083149
(Offered at ASC, BLC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

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<td>WLD 245</td>
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Gas Tungsten Arc Welder - 4805083159
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

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Gas Welder - 4805083039
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Pipeline Welder - 4805083109
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Recommended Electives:

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Production Line Welder - 4805083059
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

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<td>WLD 120</td>
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<td><strong>Total Credits</strong></td>
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</table>
Women's and Gender Studies

The Women's and Gender Studies Certificate Program provides an interdisciplinary approach that engages students in exploring and understanding historical and contemporary social issues with a focus on gender. The courses will require students to read, write, and think critically about such issues as identity, sexuality, the media, family, violence, health care, employment/discrimination, political structures, the intersection of gender, race, and poverty and the representation and participation of women on the world stage in artistic and socio-political spheres.

Certificate

Women's and Gender Studies 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 12

Note: HIS 265 satisfies general education and cultural studies requirements. HIS 266 and HIS 267 do not meet general education nor cultural studies requirements.

Women's and Gender Studies - 0502073019
(Offered at JFC)

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<td>Introduction to Women's and Gender Studies in the Arts and Humanities</td>
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<td>HIS 266</td>
<td>History of American Women to 1920 OR</td>
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<td>History of Women in America</td>
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Total Credits 12

Women's and Gender Studies - 4805083139
(Offered at BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

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<td>WLD 123</td>
<td>Shielded Metal Arc Welding (SMAW) Groove with Backing Lab OR</td>
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<td>WLD 170</td>
<td>Blueprint Reading for Welding Lab</td>
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<td>WLD 171</td>
<td>Blueprint Reading for Welding Lab</td>
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<tr>
<td>WLD 100</td>
<td>Oxy-Fuel Systems OR</td>
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<td>WLD 111</td>
<td>Cutting Processes Lab</td>
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Total Credits 17-18

Tack Welder - 4805083119
(Offered at ASC, BLC, BSC, ELC, GTW, HEC, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

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<td>WLD 151</td>
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<td>WLD 121</td>
<td>Shielded Metal Arc Welding (SMAW) Fillet Lab OR</td>
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<td>WLD 131</td>
<td>Gas Tungsten Arc Welding (GTAW) Fillet Lab OR</td>
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<td>WLD 152</td>
<td>Basic Welding B OR</td>
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Total Credits 7-10

Welder Helper - 4805083129
(Offered at ASC, BLC, BSC, ELC, GTW, HPC, HZC, JFC, MDC, MYC, OWC, SEC, SKY, SMC, WKC)

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<td>WLD 131</td>
<td>Gas Tungsten Arc Welding (GTAW) Fillet Lab OR</td>
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<td>Gas Metal Arc Welding (GMAW) Fillet Lab OR</td>
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<td>WLD 152</td>
<td>Basic Welding B OR</td>
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Total Credits 2-5

Welding Automation - 4805083169
(Offered at OWC, SMC, WKC)

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Total Credits 14-19
Workplace Safety Specialist

The Workplace Safety Specialist Certificate is designed to prepare and provide a well-rounded base of knowledge essential for success in carrying out effective safety programs for today’s workforce. Professionals who are seeking or are new to safety management occupations are introduced to health and safety regulating agencies, their rules and regulations, compliance standards as well as the personal and professional skills required to administrate safety programs.

Certificate

Workplace Safety Specialist – 1507993010
(Offered at MYC, SEC)

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<td>BAS 288</td>
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<td>HSM 100</td>
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<td>AHS 140</td>
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<td>ISX 100</td>
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Associate in Fine Arts (A.F.A.) Curricula

Filmmaking and Cinematic Arts

The Associate in Fine Arts (AFA) in Filmmaking and Cinematic Arts degree program is designed for students who plan to transfer to a four-year institution to acquire a Bachelor of Fine Arts in (Digital) Cinematic Arts related fields. The embedded certificate program is designed to accommodate non-degree seeking students who wish to increase their knowledge and skills for the workplace. The program includes standard, transferable general education requirements for students seeking a higher degree. Technical courses in film history, film production techniques, cinematography, digital media, and writing for film are required in the core. Courses are offered in areas such as screenwriting, digital media design, camera, audio, acting and editing. Students will focus on the application of skills in the production of several finished short films.

Due to the nature of the digital cinematic arts, multiple ways of understanding/communicating are explored and critical competencies like creative problem solving, collaboration, time management and critical thinking are learned and practiced. Upon completion, students will be prepared for careers in the growing film industry in Kentucky, transfer to a 4-year institution, and employment – worldwide – in this growing medium.

The Filmmaking: From Script to Screen certificate program will provide students with a hands-on, practical overview of the filmmaking process. In addition to a working knowledge of the elements of filmmaking, graduates will have a greater understanding of the collaborative process, creative problem solving, and critical thinking. Graduates will have an enhanced level of media literacy and deeper understanding of filmmaking as a communication strategy for dissemination of ideas. The curriculum supports the desire of the film industry for a stronger filmmaking workforce in Kentucky.

Associate in Fine Arts

Filmmaking and Cinematic Arts – 5006027039
(Offered at BLC)

General Education Core Requirements

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<td>Writing II ......................................... 3</td>
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<td>Oral Commun.</td>
<td>........................................ 3</td>
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<td>MAT 110</td>
<td>Applied Mathematics OR ........................ 3</td>
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<td>MA 111</td>
<td>Contemporary Mathematics OR ........................ 3</td>
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<td>Natural Sciences ........................................ 3-4</td>
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<td>Social/Behavioral Sciences ................................ 6</td>
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Digital Literacy

Computer/Digital Literacy must be demonstrated either by competency exam or by completing an approved computer/digital literacy course.

Digital Cinematic Arts Core

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<th>Course</th>
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<td>Filmmaking: Treatment to Short Screen Play .......... 4</td>
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<tr>
<td>FLM 122</td>
<td>Filmmaking: Storyboard Production .................. 4</td>
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<td>FLM 132</td>
<td>Filmmaking: Editing through Distribution ............. 4</td>
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<td>FILM 140</td>
<td>Filmmaking: Lab ....................................... 2</td>
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<td>FLM 260</td>
<td>Cinematography ........................................ 3</td>
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<td>IMD 250</td>
<td>Digital Video Editing ................................... 3</td>
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<td>FLM 190</td>
<td>Film Boot Camp* ....................................... 3</td>
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<td>FLM 291</td>
<td>Cinematic Arts Internship ............................. 3</td>
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Concentration (Choose 12 hours from list of approved Digital Cinematic Arts Electives)

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<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLM 190</td>
<td>Film Boot Camp* ....................................... 3</td>
</tr>
<tr>
<td>FLM 210</td>
<td>Screenwriting .......................................... 3</td>
</tr>
<tr>
<td>FLM 291</td>
<td>Cinematic Arts Internship ............................. 3</td>
</tr>
<tr>
<td>FLM 299</td>
<td>Special Topics in FLM: Topic ........................ 3</td>
</tr>
<tr>
<td>IMD 115</td>
<td>Introduction to Graphic Design ...................... 3</td>
</tr>
<tr>
<td>IMD 128</td>
<td>Raster Design with Adobe Photoshop ................ 3</td>
</tr>
<tr>
<td>IMD 228</td>
<td>Advanced Photoshop .................................... 3</td>
</tr>
<tr>
<td>IMD 240</td>
<td>Multimedia Development for the Web ................ 3</td>
</tr>
<tr>
<td>THA 126</td>
<td>Acting I: Fundamentals of Acting ................... 3</td>
</tr>
<tr>
<td>THA 203</td>
<td>Acting for the Camera ................................ 3</td>
</tr>
<tr>
<td>Total Credits</td>
<td>12</td>
</tr>
</tbody>
</table>

Other courses may be selected with program coordinator permission.

Certificate

Filmmaking – From Script to Screen – 5006023019
(Offered at BLC)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLM 112</td>
<td>Filmmaking: Treatment to Storyboard ................ 4</td>
</tr>
<tr>
<td>FLM 122</td>
<td>Filmmaking: Storyboard Production .................. 4</td>
</tr>
<tr>
<td>FLM 132</td>
<td>Filmmaking: Editing through Distribution ............. 4</td>
</tr>
<tr>
<td>FLM 140</td>
<td>Filmmaking: Lab ....................................... 2</td>
</tr>
<tr>
<td>THA 126</td>
<td>Acting I: Fundamentals of Acting ................... 3</td>
</tr>
<tr>
<td>THA 203</td>
<td>Acting for the Camera ................................ 3</td>
</tr>
<tr>
<td>Total Credits</td>
<td>17</td>
</tr>
</tbody>
</table>

Degree requirements: completion of minimum 60 credit hours; minimum cumulative 2.0 GPA; minimum of 15 credit hours earned at the institution awarding the degree; cultural studies course; and demonstration of computer literacy.

1 Courses chosen to satisfy General Education requirements must be selected from an approved list which may be found in the KCTCS catalog.
2 A course used to fulfill one category cannot be used to fulfill another category.
3 Transitional courses (courses numbered 001-099) cannot be used to satisfy graduation requirements.
The Associate in Fine Arts (AFA) in Theatre degree program is designed for students who plan to transfer to a four-year institution in order to pursue a BFA in the Theatre Arts and/or acquire credentials for a career in arts-related areas. The program includes general education requirements, Theatre foundation courses in acting and stagecraft, as well as a wide variety of performance and production-related electives. Students will focus on the development of performance skills and a basic knowledge of technical theatre, while participating firsthand in fully realized theatrical productions every semester. Classes will also encourage analytical skills and critical analysis. Students will be encouraged to participate in state and regional theatre auditions and festivals with audition pieces prepared specifically with an eye toward securing professional work.

**Associate in Fine Arts**

**Theatre - 5005017019**  
*(Offered at BLC, OWC)*

**General Education Core Requirements**

**Writing/Accessing Information**

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II</td>
<td>3</td>
</tr>
<tr>
<td>ENG 103</td>
<td>Oral Communications</td>
<td></td>
</tr>
<tr>
<td>ENG 104</td>
<td>Heritage/Humanities</td>
<td>3</td>
</tr>
<tr>
<td>STA 105</td>
<td>(not including THA classes)</td>
<td>3</td>
</tr>
<tr>
<td>STA 106</td>
<td>Social/Behavioral Sciences</td>
<td>6</td>
</tr>
<tr>
<td>STA 107</td>
<td>Natural Sciences with laboratory</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>STA 108</td>
<td>College Algebra OR</td>
<td>3</td>
</tr>
<tr>
<td>STA 109</td>
<td>Contemporary Mathematics OR</td>
<td>3</td>
</tr>
<tr>
<td>STA 110</td>
<td>College Algebra OR</td>
<td></td>
</tr>
<tr>
<td>STA 111</td>
<td>Higher Level Quantitative Reasoning course</td>
<td>(3)</td>
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</table>

**Theatre Core**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer/Digital Literacy</td>
<td>0-3</td>
</tr>
<tr>
<td>THA 101</td>
<td>Introduction to Theatre</td>
</tr>
<tr>
<td>THA 126</td>
<td>Fundamentals of Acting</td>
</tr>
<tr>
<td>THA 226</td>
<td>Acting II: Scene Study (Realism)</td>
</tr>
<tr>
<td>THA 227</td>
<td>Acting III: Scene Study (Styles)</td>
</tr>
<tr>
<td>THA 260</td>
<td>Stagecraft</td>
</tr>
</tbody>
</table>

A student must pass an approved three (3) credit hour computer/digital literacy course unless the computer competency exam is successfully completed.

**Practicum Core**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>THA 190</td>
<td>Production Practicum (1) (May be repeated)</td>
</tr>
<tr>
<td>THA 191</td>
<td>Performance Practicum (1) (May be repeated)</td>
</tr>
<tr>
<td>OR</td>
<td>hour(s), OR</td>
</tr>
<tr>
<td>TA 195</td>
<td>Special Projects in Theatre Arts (Project Title) OR</td>
</tr>
<tr>
<td>THA 196</td>
<td>Summer Theatre Workshop</td>
</tr>
</tbody>
</table>

**Concentration (Choose 18 hours from the Approved Theatre Electives)**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>THA 127</td>
<td>Acting Techniques</td>
</tr>
<tr>
<td>THA 150</td>
<td>Fundamentals of Production</td>
</tr>
<tr>
<td>THA 200</td>
<td>Introduction to Dramatic Literature</td>
</tr>
<tr>
<td>THA 283</td>
<td>American Theatre</td>
</tr>
<tr>
<td>FLM 112</td>
<td>Filmmaking: Treatment to Storyboarding</td>
</tr>
<tr>
<td>FLM 113</td>
<td>Filmmaking: Storyboard through Production</td>
</tr>
<tr>
<td>FLM 114</td>
<td>Filmmaking: Editing through Distribution</td>
</tr>
<tr>
<td>MUS 105</td>
<td>University Chorus</td>
</tr>
<tr>
<td>ART 110</td>
<td>Drawing I</td>
</tr>
<tr>
<td>ENG 281</td>
<td>Introduction to Film</td>
</tr>
</tbody>
</table>

**Summary**

**General Education Core Requirements**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 282</td>
<td>International Film Studies</td>
</tr>
<tr>
<td>IMD 250</td>
<td>Digital Video Editing Final Cut</td>
</tr>
<tr>
<td>OR</td>
<td>Other Courses approved by program coordinator</td>
</tr>
</tbody>
</table>

**Theatre Core Requirements**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
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</tr>
<tr>
<td>ENG 102</td>
<td>Writing II</td>
</tr>
<tr>
<td>ENG 103</td>
<td>Oral Communications</td>
</tr>
<tr>
<td>ENG 104</td>
<td>Heritage/Humanities</td>
</tr>
<tr>
<td>STA 105</td>
<td>(not including THA classes)</td>
</tr>
<tr>
<td>STA 106</td>
<td>Social/Behavioral Sciences</td>
</tr>
<tr>
<td>STA 107</td>
<td>Natural Sciences with laboratory</td>
</tr>
</tbody>
</table>

**Concentration (Approved Theatre Electives)**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>THA 190</td>
<td>Production Practicum (1) (May be repeated)</td>
</tr>
<tr>
<td>THA 191</td>
<td>Performance Practicum (1) (May be repeated)</td>
</tr>
<tr>
<td>OR</td>
<td>hour(s), OR</td>
</tr>
<tr>
<td>TA 195</td>
<td>Special Projects in Theatre Arts (Project Title) OR</td>
</tr>
<tr>
<td>THA 196</td>
<td>Summer Theatre Workshop</td>
</tr>
</tbody>
</table>

**Total**

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.

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**Associate in Fine Arts**

**Visual Art - 5007027019**  
*(Offered at OWC, WKC)*

**General Education Core Requirements**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Writing I</td>
</tr>
<tr>
<td>ENG 102</td>
<td>Writing II</td>
</tr>
<tr>
<td>ENG 103</td>
<td>Oral Communications</td>
</tr>
<tr>
<td>ENG 104</td>
<td>Heritage/Humanities</td>
</tr>
<tr>
<td>STA 105</td>
<td>(not including THA classes)</td>
</tr>
<tr>
<td>STA 106</td>
<td>Social/Behavioral Sciences</td>
</tr>
<tr>
<td>STA 107</td>
<td>Natural Sciences with laboratory</td>
</tr>
<tr>
<td>OR</td>
<td>Other Courses approved by program coordinator</td>
</tr>
</tbody>
</table>

**Fine Arts Core (Visual Art track)**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 105</td>
<td>Ancient through Medieval Art History</td>
</tr>
<tr>
<td>ART 106</td>
<td>Renaissance through Modern Art History</td>
</tr>
<tr>
<td>ART 110</td>
<td>Drawing I</td>
</tr>
<tr>
<td>ART 112</td>
<td>2-Dimensional Design</td>
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<tr>
<td>ART 113</td>
<td>3-Dimensional Design</td>
</tr>
<tr>
<td>ART 210</td>
<td>Drawing II</td>
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</table>

**Subtotal**

24
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ART 211</td>
<td>Life Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART 220</td>
<td>Painting I</td>
<td>3</td>
</tr>
<tr>
<td>ART 221</td>
<td>Painting II</td>
<td>3</td>
</tr>
<tr>
<td>ART 231</td>
<td>Jewelry/Metals I</td>
<td>3</td>
</tr>
<tr>
<td>ART 232</td>
<td>Jewelry/Metals II</td>
<td>3</td>
</tr>
<tr>
<td>ART 240</td>
<td>Ceramics I</td>
<td>3</td>
</tr>
<tr>
<td>ART 241</td>
<td>Ceramics II</td>
<td>3</td>
</tr>
<tr>
<td>ART 251</td>
<td>Graphic Communication I</td>
<td>3</td>
</tr>
<tr>
<td>ART 252</td>
<td>Typography</td>
<td>3</td>
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<tr>
<td>ART 253</td>
<td>Graphic Communication II</td>
<td>3</td>
</tr>
<tr>
<td>ART 254</td>
<td>Design Process and Presentation</td>
<td>3</td>
</tr>
<tr>
<td>ART 260</td>
<td>Sculpture I</td>
<td>3</td>
</tr>
<tr>
<td>ART 261</td>
<td>Sculpture II</td>
<td>3</td>
</tr>
<tr>
<td>ART 270</td>
<td>Printmaking I</td>
<td>3</td>
</tr>
<tr>
<td>ART 271</td>
<td>Printmaking II</td>
<td>3</td>
</tr>
<tr>
<td>ART 280</td>
<td>Beginning Film Photography</td>
<td>3</td>
</tr>
<tr>
<td>ART 281</td>
<td>Digital Photography I</td>
<td>3</td>
</tr>
<tr>
<td>ART 282</td>
<td>Digital Photography II</td>
<td>3</td>
</tr>
<tr>
<td>ART 290</td>
<td>Survival Skills for Artists</td>
<td>3</td>
</tr>
<tr>
<td>ART 299</td>
<td>Directed Studies in Art</td>
<td>1-3</td>
</tr>
</tbody>
</table>

Summary

**General Education Core Requirements**  
24

**Fine Arts Core Requirements**  
18

**Concentration (Approved Art Studio Electives)**  
18

**Total**  
60

Degree requirements: completion of minimum 60 credit hours; minimum cumulative 2.0 GPA; minimum of 15 credit hours earned at the institution awarding the degree; cultural studies course; and demonstration of computer literacy.

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Transitional courses (courses numbered 001-099) cannot be used to satisfy graduation requirements.
Courses are numbered as follows:

- 001 through 099 – Orientation and developmental courses
- 100 through 199 – Undergraduate credit
- 200 through 299 – Undergraduate credit; sophomore classification may be required.

Modular courses have four number or alpha characters with the first three numbers representing the parent course, e.g., BAS 1601 is the first module of BAS 160. The last character denotes the sequence of the module with either a numerical or alpha character. Course descriptions are published for recently approved courses, and those that have been offered in the preceding two-year period. Other active courses may be offered that are not published in the printed catalog.

### ACC Accounting

<table>
<thead>
<tr>
<th>Course ID:000927</th>
<th>ACC 201(3)</th>
<th>Financial Accounting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course Title</strong>: Financial Accounting</td>
<td><strong>Course Description</strong>: Presents generally accepted accounting principles used for the measurement and reporting of financial information in the financial statements. Pre-requisite: Quantitative Reasoning College-Readiness or Consent of the Instructor.</td>
<td><strong>Components</strong>: Lecture</td>
</tr>
<tr>
<td><strong>Course Attributes</strong>: Course Also Offered in Modules, Technical</td>
<td><strong>Components</strong>: Lecture</td>
<td></td>
</tr>
<tr>
<td><strong>Course Credit</strong>: Variable credit is shown as (1-3)</td>
<td><strong>Course ID</strong>: Unique course identification</td>
<td><strong>Components</strong>: Lecture</td>
</tr>
<tr>
<td><strong>Course Title</strong>: Managerial Accounting</td>
<td><strong>Course ID</strong>: Unique course identification</td>
<td><strong>Components</strong>: Lecture</td>
</tr>
<tr>
<td><strong>Course Title</strong>: Financial Accounting - Accounting as an Information System</td>
<td><strong>Course ID</strong>: Unique course identification</td>
<td><strong>Components</strong>: Lecture</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course Title</strong>: Financial Accounting - Long Term Assets and Long Term Financing Activities</td>
<td><strong>Course Description</strong>: 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.</td>
<td><strong>Components</strong>: Lecture</td>
</tr>
<tr>
<td><strong>Course Attributes</strong>: Written Communication</td>
<td><strong>Components</strong>: Lecture</td>
<td></td>
</tr>
<tr>
<td><strong>Course Title</strong>: Cost Terms Concepts, and Classifications</td>
<td><strong>Course ID</strong>: Unique course identification</td>
<td><strong>Components</strong>: Lecture</td>
</tr>
<tr>
<td><strong>Course Title</strong>: Planning and Control</td>
<td><strong>Course ID</strong>: Unique course identification</td>
<td><strong>Components</strong>: Lecture</td>
</tr>
<tr>
<td><strong>Course Title</strong>: Using Cost Data in Decision Making</td>
<td><strong>Course ID</strong>: Unique course identification</td>
<td><strong>Components</strong>: Lecture</td>
</tr>
</tbody>
</table>
ACH 160(3) Course ID:004683
Building Materials and Construction I
The essentials of the theory of selected building materials (Construction Specifications Institute, Divisions 2-7) and their assembly in appropriate systems are presented with particular attention to component selection and behavior under various loads, climatic conditions and fire. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 161(3) Course ID:004684
Building Materials and Construction II
The essentials of the theory of selected building materials (Construction Specifications Institute, Divisions 7-16) and their assembly in appropriate systems are presented with particular attention to component selection and behavior under various loads, climatic conditions and fire. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 170(3) Course ID:004685
Theory and History of Architecture II
A survey of the architectural periods from the neo-classic to the present is presented. This course is a continuation of ACH 120. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 175(3) Course ID:004686
Introduction to Systems
An overview of the various systems found in buildings and the influences that shape architectural design and construction is presented. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 180(1 - 3) Course ID:005463
Instructor Consent Required
Selected Topics in Architectural Technology (Topic)
The subject matter of this course may vary from semester to semester as new technology is developed and new issues evolve and/or to address local architectural issues. This course may be repeated with different topics to a maximum of six credit hours. Pre-requisite: Consent of instructor. Lecture: 1-3 credits (15-45 contact hours).
Components: Lecture
Attributes: Technical

ACH 194(3) Course ID:004687
Visual Composition
In this course, the student will study the aesthetic principles found in both two-dimensional and three-dimensional compositions. These principles will be applied in exercises involving drawing, model construction and creative writing. Lecture: 1 credit (15 contact hours); Labaratory: 2 credits (120 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ACH 195(3) Course ID:004856
Computer Aided Drafting I
Students learn how computer hardware and software are used in preparing architectural documents. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ACH 198(1 - 3) Course ID:015986
Practicum in Architectural Technology
Provides supervised, on-the-job work experience related to the student's educational objectives; students who participate in the practicum do not receive compensation. Pre-requisite: Completion of a minimum of 12 hours in Architectural Technology (ACH) courses with a min. cumulative GPA of 2.0 in all courses. Practicum: 1.0 - 3.0 credits (40-120 contact hours).
Components: Practicum
Attributes: Technical

ACH 200(3) Course ID:004688
Construction Documents III
This is the third course of a four-semester studio sequence. Students study the methods by which commercial buildings are designed and constructed. Basic skills are developed relating to the implementation of determinants in this process such as program analysis, applicable codes, construction methods and materials as well as computer applications. Through the completion of a series of structured projects including the preparation of a set of architectural construction documents for a medium-sized building, students apply the knowledge necessary to achieve these goals. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours). Pre-requisite: ACH 150 and ACH 185/ACH 195 or consent of instructor.
Components: Laboratory, Lecture
Attributes: Technical

ACH 225(3) Course ID:004689
Structures
Students study structural materials and systems including the design of simple structural components. Pre-requisite: ACH 175 and MAH 125, or consent of instructor.
Components: Lecture
Attributes: Technical

ACH 250(3) Course ID:004690
Construction Documents IV
This is the fourth course of a four-semester studio sequence. Students prepare a set of advanced construction documents using current computer-aided drafting techniques. Emphasis will be placed on design principles and site development for a commercial construction project. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours). Pre-requisite: ACH 200 or consent of instructor.
Components: Laboratory, Lecture
Attributes: Technical

ACH 260(3) Course ID:004691
Office Practice
This course is intended to serve as a capstone course in the Architectural Technology program. Emphasis is placed on preparing students for the workplace by focusing on the professional, legal, and business aspects of the architectural and construction industries. Case studies are reviewed and projects are prepared by students with the goal of introducing them to a broader set of circumstances that affect how decisions are made in the practice of architecture. Lecture: 3 credits (45 contact hours). Pre-requisite: ACH 110 and ACH 200 or equivalent.
Components: Lecture
Attributes: Technical

ACH 275(3) Course ID:004692
Mechanical and Electrical Systems
Students engage in a qualitative and quantitative study of environmental control systems used in buildings. Pre-requisite: ACH 175 and MAT 125, or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 280(2) Course ID:016138
Revit/Building Information Modeling
Introduces Building Information Modeling (BIM) using Autodesk Revit or other similar and related software, methods and processes. Provides students with skills to produce and present residential and commercial design models, construction documents, and to extract information and data from the model. Incorporates investigations into issues related to sustainable design and the integration of other software for related analysis. Pre-requisite: ACH 195, or consent of instructor. Lecture/Lab: 2.0 credits (45 contact hours).
Components: Integrated Laboratory, Integrated Lecture
Attributes: Technical

ACH 285(3) Course ID:005464
Computer-Aided Drafting II
Students learn how to modify selected computer aided drafting software to enhance construction document production. Integration of other software will also be discussed. Pre-requisite: ACH 185 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 290(3) Course ID:004694
Building Codes I
Students will analyze the content and format of current building codes. The necessity for building codes, problems in interpretation and application as well as legal aspects will be discussed. The main objective is to familiarize students with the basic provisions and procedures associated with building code administration. Pre-requisite: ACH 150 and ACH 180, or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 291(3) Course ID:004695
Construction Management
Students examine the principles and current practices of construction management with emphasis on project organization, scheduling and cost control. Pre-requisite: ACH 150, ACH 160 and ACH 161, or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 292(3) Course ID:004696
Building Codes II
This course will be continuation of ACH 290, Building Codes I, with a more in-depth study of current building codes. Pre-requisite: ACH 290 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 293(3) Course ID:004697
Presentation Techniques
Students will explore a variety of presentation and rendering techniques used in the architectural profession. Design skills and the understanding of spatial relationships will be further developed. Pre-requisite: ACH 100 or consent of instructor. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ACH 294(3) Course ID:004698
Specification Writing
This course provides an in-depth study of the importance of specifications in the design and construction process. Students will engage in research, evaluate the quality of building materials, study the methods of writing specifications, and gain exposure to industry-standard software in preparing a variety of specifications. Pre-requisite: ACH 150, ACH 160, ACH 161, or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 295(3) Course ID:004693
Computer Aided Drafting II
Students learn how to modify selected computer aided drafting software to enhance construction document production. Integration of other software will also be discussed. Pre-requisite: ACH 195 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ACH 297(3) Course ID:004699
Estimating Techniques
Students investigate the factors affecting the cost of construction, labor productivity, materials, overhead and profit, including area and volume computations. Current methods of cost estimating will be applied. Pre-requisite: ACH 150 and MAT 125; or consent of instructor. Lecture: 2.5 credits (37.5 contact hours); Laboratory: 0.5 credits (7.5 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ACH 298(3) Course ID:004700
Computer 3D Modeling
Students learn how computer hardware and software are used in preparing 3D architectural drawings and client-oriented presentations. Pre-requisite: ACH 150 and ACH 185 or consent of instructor. Lecture: Attributes: Technical
ACR 100(3) Course ID:000949
Refrigeration Fundamentals
Introduces refrigerant piping and fundamentals of refrigeration including environmental issues associated with HVAC. Co-requisite: ACR 101. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

ACR 101(2) Course ID:000950
Refrigeration Fundamentals Lab
Introduces fundamentals of refrigeration including environmental issues associated with HVAC and refrigerant piping. Develops proper hands-on techniques in the servicing and troubleshooting of basic systems. Stresses proper use and care of tools, equipment, materials, and safety. Co-requisite: ACR 100. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

ACR 102(3) Course ID:000951
HVAC Electricity Lab
Introduces students to basic physics of electricity. Covers Ohm's law; measuring resistance, voltage, ohms, watts and amps; constructing various types of electrical circuits; selecting wire and fuse sizes; and troubleshooting an electric motor and motor controls. Co-requisite: ACR 103. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

ACR 103(2) Course ID:000952
HVAC Electricity Lab
Introduces students to basic physics of electricity. Provides for application of Ohm's law; and measure resistance, voltage, ohms, watts and amps; construct various types of electrical circuits; select wire and fuse sizes; and learn to troubleshoot an electric motor and motor controls. Co-requisite: ACR 102. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

ACR 112(3) Course ID:000953
Sheet Metal Fabrication
The student will learn to make patterns and lay out and construct common sheet metal duct fittings. Co-requisite: ACR 113.
Components: Lecture Attributes: Technical

ACR 113(2) Course ID:000954
Sheet Metal Fabrication Lab
Provides lab time for students to lay out, cut, construct, and install common sheet metal duct fittings. Co-requisite: ACR 112. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

ACR 130(3) Course ID:000955
Electrical Components
Defines the electrical components of an air conditioning system. Includes different types of line voltages, wiring diagrams and solid state devices. Emphasizes safety. Pre-requisite: ACR 102 with a grade of C or greater. Co-requisite: ACR 131. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

ACR 131(2) Course ID:000956
Electrical Components Lab
Permits practice using different types of line voltages, reading wiring diagrams, and using solid state devices. Emphasizes safety. Pre-requisite: ACR 102 with a grade of C or greater. Co-requisite: ACR 130. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

ACR 170(3) Course ID:000957
Heat Load/Duct Design
Introduces fundamentals needed to calculate heat gain and heat loss, thereby determining air conditioner/furnace size which will be used to calculate the correct duct size. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

ACR 200(3) Course ID:000960
Commercial Refrigeration
Develops techniques for servicing and troubleshooting mechanical and electro-mechanical refrigeration components. Emphasizes electrical and refrigeration safety. Covers proper tool use and environmentally sound refrigerant handling. Pre-requisite: (ACR 100 and ACR 101) with a grade of C or greater. Co-requisite: ACR 201. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

ACR 201(2) Course ID:000961
Commercial Refrigeration Lab
Provides techniques in servicing and troubleshooting mechanical and electro-mechanical refrigeration components. Emphasizes electrical and refrigeration safety. Covers proper tool use and environmentally sound refrigerant handling. Pre-requisite: (ACR 100 and ACR 101) with a grade of C or greater. Co-requisite: ACR 200. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

ACR 206(5) Course ID:007376
Boilers
Develops techniques for servicing, troubleshooting and performing preventive maintenance on steam generating systems. Emphasizes electrical and steam safety. Covers proper tool and instrument use and practices for the efficient applications on steam systems used in commercial and industrial settings. Pre-requisite: ACR 102 and ACR 103. Lecture/Lab: 5.0 credits (105 contact hours).
Components: Lecture Attributes: Technical

ACR 207(5) Course ID:007377
Commercial HVAC Systems
Develops techniques for servicing, troubleshooting and performing preventive maintenance on commercial HVAC systems. Emphasizes electrical and mechanical safety. Covers tools and instruments used in installing, troubleshooting, and preforming preventive maintenance on commercial HVAC systems. Pre-requisite: ACR 100 and ACR 101 and ACR 102 and ACR 103) or Consent of the Instructor. Lecture/Lab: 5.0 credits (105 contact hours).
Components: Integrated Laboratory, Integrated Lecture Attributes: Technical

ACR 208(4) Course ID: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-requisites: ACR 100 and ACR 102 and ACR 103. Lecture/Lab: 4.0 credits (75 contact hours).
Components: Lecture Attributes: Technical

ACR 209(4) Course ID:007379
Manual N Commercial Load Calculation and Design
Covers fundamentals needed to calculate heat gain and heat loss for commercial buildings. Introduces design conditions, solar heat gain, ventilation, internal heat gains, psychrometrics and distribution systems for air conditioning and heating, thereby determining the correct size of equipment needed for different commercial buildings. Lecture: 4.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

ACR 210(3) Course ID:000962
Ice Machines
Introduces operation, checking, adjusting and troubleshooting commercial ice makers. Covers adjusting, checking, cleaning and troubleshooting commercial ice machines. Pre-requisite: (ACR 100 and ACR 102) with a grade of C or greater. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

ACR 250(3) Course ID:000963
Cooling and Dehumidification
Explains water characteristics of air conditioning units with air and water cooled condensers. Covers line, low voltage and pneumatic controls. Pre-requisite: (ACR 100 & ACR 101) with a grade of C or greater. Co-requisite: ACR 250. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

ACR 251(2) Course ID: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 Lab
Provides lab time for application of heating, 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 262. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

ACR 262(2) Course ID:016230
Heating and Humidification Lab
Provides lab time for application of troubleshooting, checking, adjusting, and installing heating units currently in use. Pre-requisite: ACR 102 &103 or EET 154 & 155 or ETT 112 & 113 or IMT 110 & 111 or consent from the instructor. Co-requisite: ACR 260. Laboratory 2.0 credits (60 contact hours).
Components: Laboratory Attributes: Technical

ACR 270(3) Course ID:000967
Heat Pump Application
Explains reverse cycle heating systems, defrost cycles, reversing valves, and auxiliary heating. Concentrates on line and control voltage circuitry pertaining to these units. Pre-requisite: [(ACR 100 and ACR 102) with a grade of C or greater] or Permission of Instructor. Co-requisite: ACR 271. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

ACR 271(2) Course ID:000968
Heat Pump Application Lab
Provides for application of troubleshooting, checking, adjusting, and installing reverse cycle units. Pre-requisite: [(ACR 100 and ACR 102) with a grade of C or greater] or Permission of Instructor. Co-requisite: ACR 270. Laboratory: 2 credits (60 contact hours).
Components: Laboratory Attributes: Technical

ACR 290(3) Course ID:000969
Journeyman Preparation
Includes lectures, discussions, and presentations pertaining to the proper application of HVAC codes. Prepares the student to pass the Kentucky Journeyman
HVAC licensing exam. (This class should be taken at the end of the program.) Lecture: 3 credits (45 contact hours).

ACT 291(1) Course ID:000970
Instructor Consent Required
Special Problems
A course designed for the student who has demonstrated specific special needs. Pre-requisite: Permission of Instructor. Laboratory: 1 credit (45 contact hours).

Components: Laboratory
Attributes: Technical

ACT 293(2) Course ID:000971
Instructor Consent Required
Special Problems II
A course designed for the student who has demonstrated specific special needs. Pre-requisite: Permission of Instructor. Laboratory: 2 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

ACT 295(3) Course ID:000972
Instructor Consent Required
Special Problems III
A course designed for the student who has demonstrated specific special needs. Pre-requisite: Permission of Instructor Laboratory: 3 credits (135 contact hours).

Components: Laboratory
Attributes: Technical

ACT 298(2) Course ID:000973
Instructor Consent Required
Practicum
Practicum provides supervised on-the-job work experience related to the student’s educational objectives. Students participating in Practicum do not receive compensation. Pre-requisite: Permission of the Instructor. Practicum: 2 credits (150 contact hours).

Components: Practicum
Attributes: Technical

ACT 299(2) Course ID:000974
Instructor Consent Required
Cooperative Education Program
Co-op provides supervised on-the-job work experience related to the student’s educational objectives. Students participating in the Cooperative Education program receive compensation for their work. Pre-requisite: Permission of the Instructor. Co-op: 2 credits (150 contact hours).

Components: Co-Op
Attributes: Technical

ACT Accounting

ACT 101(3) Course ID:000004
Fundamentals of Accounting I
Students are introduced to accounting terminology and general theoretical principles. The major focus of the course is on the accounting cycle and the communication of financial information to decision-makers. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

ACT 102(3) Course ID:000005
Fundamentals of Accounting II
Basic financial accounting concepts and methods are expanded to include accounting for partnerships and corporations. Lecture: 3 credits (45 contact hours). Pre-requisite: ACT 101.

Components: Lecture
Attributes: Technical

ACT 177(3) Course ID:005238
Entrepreneurial Accounting
Includes issues and concerns that are vital to small and medium-size businesses. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

ACT 196(3) Course ID:000007
Payroll Accounting
The design and implementation of modern payroll systems will be introduced in this course. Pre-Requisite: ACC 201 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

ACT 277(3) Course ID:000008
Managerial Accounting Topics
The study of the uses of accounting information in managerial planning and control of organizations. Pre-requisite: ACC 202. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

ACT 279(3) Course ID:000010
Computerized Accounting Systems
Applying accounting concepts and principles by using accounting software, for both service businesses and merchandisers. Includes internal control principles for both manual and computerized accounting systems. Pre-requisite: ACC 201 or ACT 101 and ACT 102 or concurrent enrollment in ACT 102. Digital literacy 3.0 hours. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

ACT 281(3) Course ID:000013
Individual Taxation
The study of the theory and applications of federal and individual income taxes will be emphasized. Lecture: 3.0 credit hours. Pre-requisite: One semester of college accounting or consent of instructor.

Components: Lecture
Attributes: Technical

ACT 286(3) Course ID:000014
Financial Accounting Topics
Additional in-depth exposure to financial accounting procedures for classifying, recording, reporting, and disclosure; included primarily for students enrolled in the Accounting Technology AAS program and the Accounting Option in the Business Administration AAS Program. Pre-requisite: ACC 201 or ACT 101 and ACT 102. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

ACT 1771(0.6) Course ID:005239
Rationale for a Well Designed Accounting System
Developing a well designed accounting system for the entrepreneur. Lecture: 0.6 credits (9 contact hours).

Components: Lecture

ACT 1772(0.6) Course ID:005240
Contractual and Legal Reporting Requirements
Common contractual and legal reporting requirements. Lecture: 0.6 credits (9 contact hours). Pre-requisite: ACT 1771 or consent of the instructor.

Components: Lecture

ACT 1773(0.6) Course ID:005241
Overview of Accounting for the Entrepreneur
Overview of accounting for the entrepreneur. Lecture: 0.6 credits (9 contact hours). Pre-requisite: ACT 1772 or consent of the instructor.

Components: Lecture

ACT 1774(0.6) Course ID:005242
Introduction to Computer Accounting Software to Record Basic Accounting Transactions
Computer accounting software to record basic accounting transactions. Lecture: 0.6 credits (9 contact hours). Pre-requisite: ACT 1773 or consent of instructor.

Components: Lecture

ACT 1775(0.6) Course ID:005243
Introduction to Computer Accounting Software to Generate Financial Statements
Computer accounting software to generate financial statements. Lecture: 0.6 credits (9 contact hours). Pre-requisite: ACT 1774 or consent of the instructor.

Components: Lecture

ACT 1961(0.5) Course ID:006117
Payroll Records
Introduces the records required for today’s payrolls or human resource managers. Covers the relationship between Payroll and Human Resources and their common laws. Concludes with salary computations and methods to compute Gross Payroll. Lecture: 0.5 credit (7.5 contact hours).

Components: Lecture

ACT 1962(0.5) Course ID:006118
Payroll Taxes
Covers federal and state tax withholding and employer-side payroll expenses. Pre-requisite: ACT 1961. Lecture: 0.5 credit (7.5 contact hours).

Components: Lecture

ACT 1963(0.5) Course ID:006119
Accounting for Payroll
Covers federal and state unemployment and social security laws. Pre-requisite: ACT 1961. Lecture: 0.5 credit (7.5 contact hours).

Components: Lecture

ACT 1964(1) Course ID:006120
Manual Payroll
Requires the student to complete a Quarterly Payroll Simulation. Pre-requisite: ACT 1962 & 1963. Lecture: 1 credit (15 contact hours).

Components: Lecture

ACT 1965(0.5) Course ID:006121
Computerized Payroll
Requires the student to complete a Computerized Payroll Simulation. Pre-requisite: ACT 1962 & 1963. Lecture: 0.5 credit (7.5 contact hours).

Components: Lecture

ACT 2791(1) Course ID:015822
Computer Accounting Basics
Presents computerized accounting concepts and principles for a merchandiser using computerized accounting software. Pre-requisite: ACC 201 or ACT 101 and ACT 102 or concurrent enrollment in ACT 102. Digital literacy 3.0 hours. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

ACT 2792(1) Course ID:015823
Computer Accounting Procedures
Presents computerized accounting concepts and principles for businesses including service providers. Pre-requisite: ACT 2791. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

ACT 2793(1) Course ID:015824
Advanced Features and Controls
Presents accounting concepts and principles for new businesses, including merchandisers, and covers internal controls. Pre-requisite: ACT 2792. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

ADX Automotive Technology

ADX 120(3) Course ID:000983
Basic Automotive Electricity
Introduces the student to the principles, theories, and concepts of the automotive electrical system that include the unique diagramming, coding and location of wiring, and component devices. Co-requisite: ADX 121. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

ADX 121(2) Course ID:000984
Basic Automotive Electricity Lab
Provides hands-on work designed to allow the student to use the concepts, principles, and theories covered in Basic Automotive Electricity. ADX 120, in practical application. Provides the student a work experience alternating between periods of work off campus and work in a classroom laboratory setting. Co-requisite: ADX 120. Lab: 2.0 credits (90 contact hours).

Components: Laboratory
Attributes: Technical
AET 150(3)  Course ID:000885
Engine Repair
Provides a series of lectures and demonstrations on the fundamentals of engine repair, troubleshooting, and engine operation and maintenance. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

AET 151(2)  Course ID:000886
Engine Repair Lab
Provides practical experiences and applications relating to engine repair, inspection, trouble shooting and maintenance. The student may be provided a work experience alternating between periods of work off campus and work in a classroom laboratory setting. Pre-requisite or Co-requisite: AET 150. Lab: 2.0 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

AXD 170(3)  Course ID:000987
Climate Control
Introduces the theory and operation of heating and air conditioning systems, air conditioning terminology, and servicing and troubleshooting mechanical and electrical circuits of heating and air conditioning systems. Co-requisite: AXD 171. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

AXD 171(1)  Course ID:000988
Climate Control Lab
Provides opportunities to troubleshoot, repair, and perform maintenance on heating and air conditioning systems. Provides opportunities in safety precautions, special tool uses, component operation and how to service and troubleshoot the complete system. The student may be provided a work experience alternating between periods of work off campus and work in a classroom laboratory setting. Co-requisite: AXD 170. Lab: 1.0 credit (45 contact hours).

Components: Laboratory
Attributes: Technical

AXD 260(3)  Course ID:000989
Electrical Systems
Focuses on the theory and principles relating to automotive electrical/electronic components. Co-requisite: AXD 261. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

AXD 261(2)  Course ID:000990
Electrical Systems Lab
Provides practical applications and experiences related to the theory and principles of automotive electrical/electronic components. The student may be provided a work experience alternating between periods of work off campus and work in a classroom laboratory setting. Co-requisite: AXD 260. Lab: 2.0 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

AET 250(4)  Course ID:006376
PLC Networking
Introduces the basic concepts in PLC networking to include networking protocols specific to industrial controllers, ASCII codes, bus topologies, and handling of remote I/O. Pre-requisite: AET 190. Lecture/Lab: 4.0 credits (75 contact hours).

Components: Lecture
Attributes: Technical

AET 270(4)  Course ID:006378
Advanced PLC Programming
Introduces the student to the wide range of capabilities, beyond basic programming needs, which are available to the modern PLC user. Includes data Manipulation; shift register and sequencer instructions; binary, octal and hexadecimal numbering systems; and analog inputs and outputs. Pre-requisite: EET 276 and EET 277. Lecture/Lab: 4.0 credits (75 contact hours).

Components: Lecture
Attributes: Technical

AFS 111(1)  Course ID:005359
Aerospace Studies I
A course designed to provide the student with a basic understanding of the nature and principles of war, national power, and the Department of Defense role in the organization of national security. The student also develops leadership abilities by participating in a military organization, the cadet corps, which offers a wide variety of situations demanding effective leadership. Co-requisite: AFS 112. Lecture: 1 credit (15 contact hours).

Components: Lecture
Attributes: Technical

AFS 112(1)  Course ID:005360
Leadership Laboratory I
A course designed for development of basic skills required to be a manager, including communications, human relations, and administration of equal opportunity. Credit will not be granted toward the hours requirements for the degree. Pass/Fail only. Co-requisite: AFS 111. Laboratory: 1 credit (45 contact hours).

Components: Laboratory
Attributes: Technical

AFS 113(1)  Course ID:005361
Aerospace Studies II
A course designed to provide the student with a basic understanding of the contribution of aerospace power to the total U.S. strategic offensive and defensive military posture. The student also develops leadership abilities by participating in a military organization, the cadet corps, which offers a wide variety of situations demanding effective leadership. Pre-requisite: AFS 111. Lecture: 1 credit (15 contact hours).

Components: Lecture
Attributes: Other

AFS 211(1)  Course ID:005222
Aerospace Studies II
Introduces the study of air power from a historical perspective; focuses on the development of air power into a primary element of national security. Leadership experience is continued through participation in the cadet corps. Pre-requisite: AFS 111, 113 or PAS approval. Lecture: 1.0 credit hour; leadership, laboratory, one hour.

Components: Lecture
Attributes: Technical

AFS 212(1)  Course ID:005223
Leadership Laboratory II
A course designed for development of advanced skills required to be a manager/leader, including leadership studies, public speaking, group dynamics, motivation and preparation for field training. Credit will not be granted toward the hours requirements for the degree. Pass/Fail only. Co-requisite: AFS 211. Components: Laboratory
Attributes: Technical

AFS 213(1)  Course ID:005235
Aerospace Studies II
Provides a foundation for understanding how air power has been employed in military and non-military operations to support national objectives. Examines the changing mission of the defense establishment, with particular emphasis on the United States Air Force. Leadership experience is continued through participation in the cadet corps. Lecture, one hour; leadership laboratory, one hour per week. Pre-requisite: AFS 111, 113 or PAS approval.

Components: Lecture
Attributes: Other

AGR 101(3)  Course ID:000750
The Economics of Food and Agriculture
Introduces the field of agricultural economics and some of the basic tools and concepts of decision-making. Illustrates concepts in terms of selected current social and economic issues including the role of agriculture in both a national and international dimension. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SB - Social Behavior Science, Technical

AGR 115(3)  Course ID:015713
Agriculture Maintenance
Provides a study of basic maintenance issues (electrical, plumbing, fencing, building construction and repair, and safety) that are performed on farm operations, and the practical troubleshooting and problem solving techniques. Lecture: 3.0 credits (75 contact hours).

Components: Lecture
Attributes: Technical

AGR 125(3)  Course ID:002209
Introduction to Fertilizers and Soils
Introduces practical aspects of soils and fertilizers as related to plant growth and production. Lecture: 2.0 credits (30 contact hours), Lab: 1.0 credits (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

AGR 130(2)  Course ID:005135
Field Applications in Agriculture
Includes methods of solving many application problems encountered in agriculture using applied mathematical and logic skills. Emphasizes practical mathematical skills already acquired from secondary education to address agricultural situations involving computations necessary for upper level courses in agriculture. Requires some knowledge of agricultural situations. Pre-requisite: MAT 055 or equivalent placement level. Lecture: 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical
AGR 135(3) Course ID:015714 
Herbaceous Plant Production
Introduces the identification, selection, requirements, care, and use of herbaceous plant materials commonly found in food/agronomic production, including scientific name and common pests. Discusses Annuals, perennials, bulbs, and grasses. Lecture/Lab: 3.0 (60 contact hours).

Components: Lecture
Attributes: Technical

AGR 140(3) Course ID:000021 
Issues In Agriculture
Provides an introduction to agriculture and current issues pertaining to the agricultural industry. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

AGR 145(3) Course ID:015715 
Technology in Agriculture
Provides students with a basic introduction to the newest technological advancements in the agricultural industry, including the involvement of computer-based applications. Introduces students to computer integrated management of agricultural operations, including livestock, crop, financial management, and recordkeeping. Develops understanding of equipment and farm monitoring technology and their integration with smart devices. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical

AGR 150(3) Course ID:000022 
Agricultural Power
Provides an introduction to farm equipment and their power units through classroom instruction that concentrates on specific principles that govern the equipment. Includes a lab that applies the principles learned in the classroom. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (45 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

AGR 155(3) Course ID:015716 
Greenhouse Production

Components: Lecture
Attributes: Technical

AGR 160(3) Course ID:004279 
Horticultural Science
A study of the practical principles and practices used in horticulture. Lecture: 3 credits (45 contact hours).

Components: Lecture

AGR 170(3) Course ID:000024 
Introduction to Equipment, Machines, and Engines
Provides an introduction to tractors, combines, balers, forage harvesters and windrowers and various attachments. Includes a study of the operation, adjustments, and repairs. Covers an introduction to engines in which theory and minor repairs will be discussed. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (90 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

AGR 175(2) Course ID:015717 
Agriculture Marketing and Sales
Enables students to gain a fundamental knowledge of marketing and sales strategies as they are directly related to the agriculture industry. Focuses on market research, marketing management, promotions, produce handling, packaging, distribution, customer relations and sales techniques. Lecture: 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical

AGR 180(2) Course ID:000025 
Agricultural Internship I
Provides the opportunity to broaden the educational experience through appropriate observation and individualizes work assignments related to the pre-requisite and/or co-requisite course objectives. The student will spend 80 hours of supervised field experience in an approved Agricultural Industry. Pre-requisite: AGR 150 (and AGR 140) or Consent of Instructor. Lab: 2.0 credits (75 contact hours).

Components: Laboratory
Attributes: Technical

AGR 190(2) Course ID:000026 
Agricultural Internship II
Provides the opportunity to broaden the educational experience through appropriate observation and individualized work assignments related to the pre-requisite and/or co-requisite course objectives. The student will spend 80 hours of supervised field experience in an approved Agricultural Industry. Pre-requisite: (AGR 125 and AGR 180 and AGR 170) or Consent of Instructor. Lab: 2.0 credits (75 contact hours).

Components: Laboratory
Attributes: Technical

AGR 200(2) Course ID:000028 
Agricultural Internship III
Provides the opportunity to broaden the educational experience through appropriate observation and individualized work assignments related to the pre-requisite and/or co-requisite course objectives. The student will spend 80 hours of supervised field experience in an approved Agricultural Industry. Lecture/Co-requisite: (AGR 125 and AGR 180 and AGR 170) or Consent of Instructor. Lab: 2.0 credits (75 contact hours).

Components: Laboratory
Attributes: Technical

AGR 205(3) Course ID:015718 
Forage Management
Includes the study of the management, production, and utilization of forage grasses and legumes for harvested and grazed production. Includes subject areas such as varietals selection, planting, calculating yields, production costs, growth management, and harvesting techniques. Focuses on annual and perennial legume and grass production. Emphasizes establishment, winter survival, fertilization, cutting management, forage storage, and variety selection. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical

AGR 215(3) Course ID:015719 
Weed Management
Examines the nature of crop/weed interactions and explores various weed control methods. Explores weed identification, biology, ecology, and modern management principles. Pre-requisite: AGR 250 Lecture/Lab: 3.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

AGR 220(3) Course ID:000030 
Computers In The Agricultural Environment
Provides an introduction to computers as they relate to the agricultural environment. Pre-requisite: CIS 100. Lecture/Lab: 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

AGR 225(3) Course ID:015720 
Agricultur 230(3) Course ID:005136 
Career Development in Agriculture
Provides a study of agricultural pest control, including insects, diseases, and weeds, of common agricultural and horticultural crops. Discusses management techniques including chemical, biological, IPM, and organic methods. Pre-requisite: AGR 250 Intro to Plants/Crop Production. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical

AGR 225(3) Course ID:015723 
Crop Scouting
Designed to give students a hands-on experience scouting crops to find and identify existing and potential problems related to crop growth and development, fertility, pest pressure, and similar yield reducers. Pre-requisite: AGR 235 Field Crop Production. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical

AGR 230(3) Course ID:007387 
Introduction to Sustainable Agriculture
Provides students with a clear perspective on the principles, history, and practices of sustainable agriculture in our local and global communities. Provides understanding of the challenges to sustainability in our present system of agriculture. Enables students to identify principles of sustainable agriculture as they relate to basic production practices. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

AGR 245(3) Course ID:015724 
Agriculture Business and Records
Provides students with an introduction to farm business management and record keeping. Emphasis is placed on business strategies, developing a business plan, budgeting and basic accounting principles, agriculture tax code, and basic accounting principles. Pre-requisite: AGR 235 Field Crop Production. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical

AGR 250(3) Course ID:000033 
Introduction to Plants/Crop Production
Familiarizes students with the basic principles and theories involved in field crop production. Provides a limited understanding of how crops are grown as a prelude to growing crops successfully. Covers pest and pesticides as well as plant disease and protection. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (45 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

AGR 255(3) Course ID:015723 
CROP Scouting
Designed to give students a hands-on experience scouting crops to find and identify existing and potential problems related to crop growth and development, pest, plant disease, and similar yield reducers. Pre-requisite: AGR 235 Field Crop Production. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical

AGR 260(3) Course ID:007387 
Introduction to Sustainable Agriculture
Provides students with a clear perspective on the principles, history, and practices of sustainable agriculture in our local and global communities. Provides understanding of the challenges to sustainability in our present system of agriculture. Enables students to identify principles of sustainable agriculture as they relate to basic production practices. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

AGR 285(2) Course ID:015717 
Agriculture Marketing and Sales
Enables students to gain a fundamental knowledge of marketing and sales strategies as they are directly related to the agriculture industry. Focuses on market research, marketing management, promotions, produce handling, packaging, distribution, customer relations and sales techniques. Lecture: 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical
AGR 270(3) Course ID:007388
Introduction to Organic Agriculture
Introduces students to the theories, practice, and policy of organic agriculture. Topics covered include the history and the need for organic agriculture, fundamental organic farming practices, organic animal production, the National Organic Program, and economic and marketing considerations for organic products. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AGR 275(3) Course ID:015725
Value Added Production
Provides students the knowledge and skills necessary to add economic value to raw farm products. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

AGR 280(3) Course ID:007424
Livestock Management
Covers management practices involved in the production of swine, horses, cattle, sheep and goats. Emphasizes selection, reproduction, feeding, diseases, marketing, handling, and parasite control. Laboratory exercises teach and reinforce livestock management techniques. Pre-requisite: AGR 240 Introduction to Animal Science. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

AGR 285(3) Course ID:015726
Farm Financial Management
Provides an overview of the basic concepts needed to understand commodity futures and option markets. Discuss risks and rewards, as well as other topics needed to successfully trade in these markets. Pre-requisite: AGR 101 Economics of Food and Agriculture. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AHS 100(2) Course ID:001515
Human Growth and Development
Course focus is on the promotion of health through assessment of individuals’ growth and development across the life span. Consideration is given to the family, cultural, environmental, spiritual, and genetic influences when meeting basic human needs. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical

AHS 105(3) Course ID:000037
Introduction to Health Occupations
Basic health care concepts and skills for students interested in or planning a career in health care are introduced. Basic body mechanics, health care delivery systems, caregiver/client relationships, infection control, basic assessment skills, first aid, cardiopulmonary resuscitation certification, team building skills and problem-based learning are included. Lecture: 2.5 credit hours (37.5 contact hours); Lab: 0.5 credit hours (30 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

AHS 109(4) Course ID:001516
Introduction to Body Structure and Functions
Provides knowledge of the structure and function of the human body with emphasis on normalcy. Includes interaction of all body systems in maintaining homeostasis and promotes an understanding of health maintenance. Not intended as a general education science course. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Technical

AHS 115(3) Course ID:003805
Medical Terminology
A study of anatomical, physiological and pathological terminology with emphasis on word structures and definition of root words, suffixes, and prefixes from Greek and Latin. Additional emphasis is placed on spelling and pronunciation. Primarily designed for individuals preparing for a career in health care. No previous knowledge of Greek or Latin is required. Lecture: 3 hrs.
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

AHS 120(1) Course ID:001517
Medical Terminology
Basic medical word techniques emphasizing anatomical, physiological and medical terms. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical

AHS 140(3) Course ID:005520
Introduction to Public and Community Health
Introduces students to the management of public health emergencies. Topics include: basic epidemiology and pandemics, agricultural and plant diseases, and emergency medicine. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AHS 201(3) Course ID:002358
Management Principles for Allied Health Providers
Many allied health practitioners will assume the role of a manager during the course of their career. This course is designed to provide theory and application focusing on the development of skills and strategies to assume professional responsibilities in management and administration. Lecture: 3 credits (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

AHS 203(3) Course ID:005479
Diversity in Health Care
Introduces students to health care consumers from various cultural backgrounds. Emphasizes the cultural heritage and diversity existing in contemporary society and cultural factors that affect nontraditional and underrepresented consumers’ access to and use of health care resources. Broadens students’ perception and understanding of health/illness and the variety of meanings these terms carry for members of differing sociocultural populations. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AHS 210(3) Course ID:016284
Principles of Advanced Integrated Manufacturing
Introduces the founding principles/practices of manufacturing safety and health in a modern manufacturing environment. Covers current manufacturing quality control concepts and techniques used in industry with an emphasis on proper statistical methods and relevant software. Pre-requisite: Reading and math assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

AHS 201(1.5) Course ID:016583
Basic Safety in Manufacturing
Introduces basic manufacturing safety and ergonomic techniques. Pre-requisites: Reading and math assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture/Lab: 1.5 credits (30 contact hours).
Components: Lecture

AHS 202(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

AHS 211(1) Course ID:016585
Industrial Materials and Safety
Addresses safety in a traditional and CNC machining environment and introduces industrial materials and their properties. Pre-requisite: Reading and math assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture/Lab: 1.0 credits (20 contact hours).
Components: Lecture

AHS 212(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: AHS 1101. Lecture: 1.0 credit (20 contact hours).
Components: Lecture

AHS 213(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: AHS 1102 or consent of instructor. Lecture/Lab: 1.0 credits (20 contact hours).
Components: Lecture

AHS 214(1) Course ID:016589
Introduction to Plastics
Introduces polymers and the plastic industry. Includes safety in the plastic manufacturing environment as well as the history of plastic polymers and industry advancements. Pre-requisite: Reading and math assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture: 1.0 credit (20 contact hours).
Components: Lecture

AHS 215(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: AHS 1201 or Consent of Instructor. Lecture/Lab: 1.0 credits (20 contact hours).
Components: Lecture

AHS 216(1) Course ID:016591
Plastic Molding Processes
Presents the industry standards and process techniques of thermforming, injection molding and laminating. Discusses different types of plastic resin and the proper handling and preparation for production. Pre-requisite: AHS 1202 or Consent of Instructor. Lecture/Lab: 1.0 credit (20 contact hours).
Components: Lecture

AHS 1151(1) Course ID:016312
Medical Terminology Word Roots
Emphasizes word structures and the definition of root words, suffixes, and prefixes from Greek and Latin. Lecture: 1 credit (15 contact hours).
Components: Lecture

AHS 1152(1) Course ID:016313
Basic Elements of Terminology
Focuses on basic elements of medical words from Greek or Latin roots, together with additional emphasis on spelling and pronunciation. Pre-requisite: AHS 1151. Lecture: 1 credit (15 contact hours).
Components: Lecture

AHS 1153(1) Course ID:016314
Advanced Word Roots & Systems
Focuses on advanced word structures and the definition of root words, suffixes, and prefixes from Greek and Latin that are related to human body structures, also includes the study of commonly used medical abbreviations. Pre-requisite: AHS 1152. Lecture: 1 credit (15 contact hours).
Components: Lecture
AIT Advanced Industrial Integrated

AIT 100(4) Course ID:005955
Power Generation and Utilization
Introduces electrical, hydraulic, and pneumatic power systems used in industry. Covers theory and application of DC and AC, including three-phase power and theory and application of hydraulic and pneumatic power utilizing basic circuits. Pre-requisite: Reading and Mathematics assessment exam scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture/Lab: 4.0 credits (90 contact hours). (30:1 Ratio Lab).
Components: Laboratory, Lecture Attributes: Course Also Offered in Modules, Technical

AIT 110(3) Course ID:005956
Power Distribution Systems
Provides instruction in the use of electrical, hydraulic, and pneumatic power as it applies in industry. Covers AC/DC circuit analysis, single-phase and three-phase power including hydraulic and pneumatic power and basic principles of pressure and flow. Pre-requisite: AIT 100 or consent of instructor. Lecture/Lab: 3 credits (67.5 contact hours).
Components: Laboratory, Lecture Attributes: Course Also Offered in Modules, Technical

AIT 120(3) Course ID:005957
Equipment Installation
Focuses on the installation of electrical, hydraulic, and pneumatic systems. Emphasizes motor installation, wiring/button selection, conduit preparation and installation, hydraulic/pneumatic supply, piping, controls, and various lifting and rigging techniques. Pre-requisite: AIT 100 or consent of instructor. Lecture/Lab: 3.0 credits (75 contact hours), (30:1 Ratio Lab).
Components: Laboratory, Lecture Attributes: Course Also Offered in Modules, Technical

AIT 130(4) Course ID:005958
Measurement and Instrumentation
Covers measurement and instrumentation concepts and applications, choice of proper instrumentation and calibration, manual and automated measurement processes. Pre-requisite: AIT 140 or consent of instructor. Lecture/Lab: 4.0 credits (90 contact hours). (30:1 Ratio).
Components: Laboratory, Lecture Attributes: Course Also Offered in Modules

AIT 135(3) Course ID:007384
Industrial Refrigeration - I
Presents refrigeration fundamentals and associated components for individuals interested in safe, effective, and efficient maintenance and operation of industrial refrigeration equipment who may also be seeking RETA credentialling. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

AIT 140(4) Course ID:005959
Industrial Controls I
Provides instruction in the integrated application of basic electrical and fluid power controls. Emphasizes electrical motor controls with starting, reversing, and stopping devices, as well as various hydraulic and pneumatic valves and speed control circuits. Prerequisite: AIT 110 or consent of instructor. Lecture/Lab: 4 credits (90 contact hours). (30:1 Ratio).
Components: Laboratory, Lecture Attributes: Course Also Offered in Modules

AIT 145(6) Course ID:017229
Utility Technician I
Introduces the basics of safely constructing power lines. Covers pole climbing techniques, bucket truck operation and digger/derrick operation. Provides introductory training on all power line construction tools and equipment. Lecture: 1 credit hour (15 contact hours), Laboratory: 5 credit hours (225 contact hours).
Components: Laboratory, Lecture Attributes: Technical

AIT 160(1) Course ID:005961
Workplace Safety
Focuses on General Industry safety practices as defined by the Occupational Safety and Health Administration. Covers PPE, hazard identification, walking and working surfaces, as well as other recognized workplace safety issues. Students will earn the OSHA 10-hour General Industry safety card upon successful completion of the course. Pre-requisite: Reading assessment scores above KCTCS developmental placement level or successful completion of prescribed developmental courses. Lecture: 1 credit hour (15 contact hours).
Components: Lecture Attributes: Technical

AIT 220(3) Course ID:006565
The Integrated Power Grid
Introduces students to types of power plants that are tied to the electric grid other than fossil power plants. Provides overviews of nuclear, hydro, and many forms of renewable energy. Includes forms of alternative energy power plants such as solar, wind, and bio-mass power plants. Lecture: 3.0 (45 contact hours)
Components: Lecture Attributes: Course Also Offered in Modules, Technical

AIT 245(6) Course ID:017228
Utility Technician II
Covers construction of power lines. Teaches framing and use of tools required in construction. Emphasizes safety in establishing a work zone and utilizing rescue techniques. Pre-requisite: AIT 145. Lecture: 1 credit hour (15 contact hours). Laboratory: 5 credit hours (225 contact hours).
Components: Laboratory, Lecture Attributes: Technical

AIT 290(0.1 - 5) Course ID:005965
Instructor Consent Required
Selected Topics in Advanced Integrated Technology
Includes selected topics in integrated technology, due to rapidly changing technology or in response to local needs. Covers topics which may vary from semester to semester at the discretion of the instructor. May repeat course with different topics to a maximum of five credit hours. Pre-requisite: Consent of instructor. Lecture/Lab: Varies by topic.
Components: Lecture Attributes: Technical

AIT 1001(2) Course ID:006150
Basic Electrical Knowledge
Introduces electrical power systems used in industry. Provides introductory theory and application of DC/AC circuits, control transformers, and operation of DC power supplies. Pre-requisite: AIT 145. Lecture: 1 credit hour (15 contact hours). Lecture/Lab: 2.0 credits (45 contact hours).
Components: Lecture

AIT 1002(1) Course ID:006151
Power Development
Introduces electrical power systems used in industrial settings, including basic theory and application of alternators, electric motors, and three-phase. Pre-requisite: AIT 1001 or Consent of Instructor. Lecture/Lab: 1.0 credit (22.5 contact hours).
Components: Integrated Lecture

AIT 1003(1) Course ID:006152
Hydraulic/Pneumatic Fundamentals
Introduces basic theory and application of hydraulic and pneumatic industrial power systems. Pre-requisite: Reading assessment exam scores above KCTCS developmental placement level or successful completion of prescribed developmental courses or consent of instructor. Lecture/Lab: 2.0 credits (45 contact hours).
Components: Integrated Lecture

AIT 1101(1) Course ID:006153
Electrical Power Distribution
Provides instruction in the use of electrical power as it applies in industry. Includes AC/DC circuit analysis, AC power generation and three-phase distribution systems, and transformers. Pre-requisite: AIT 1001 or consent of instructor. Lecture/Lab: 1.0 credits (22.5 contact hours).
Components: Lecture

AIT 1102(2) Course ID:006154
Fluid Power Distribution
Provides instruction in the use of hydraulic and pneumatic power as it applies to industry. Includes basic principles of pressure and flow, basic hydraulic/pneumatic circuits including pumps, valves, cylinders, and motors. Pre-requisite: AIT 1003 or consent of instructor. Lecture/Lab: 2.0 credit (45 contact hours).
Components: Laboratory, Lecture

AIT 1201(1) Course ID:006155
Electrical Installation
Focuses on the installation of electrical industrial systems, including print reading, wiring/button selection, component installation, raceways and conduit, control wiring, and wiring techniques. Pre-requisite: AIT 1101 or consent of instructor. Lecture/Lab: 1.0 credit (25 contact hours).
Components: Laboratory, Lecture

AIT 1202(1) Course ID:006156
Piping, Pneumatic, & Installation
Focuses on the installation of pneumatic industrial systems, including interpretation of drawings and diagrams, fabrication of pipe and piping fittings, pneumatic supply lines, piping safety, and pipe installation for pneumatic systems. Pre-requisite: AIT 1102 or consent of instructor. Lecture/Lab: 1 credit (25 contact hours).
Components: Laboratory, Lecture

AIT 1203(1) Course ID:006157
Mechanical Installation
Includes motor and machine mounting, speed, torque, power measurement, and various lifting and rigging techniques. Pre-requisite: Reading assessment exam scores above KCTCS developmental placement level or successful completion of prescribed developmental courses or consent of instructor. Lecture/Lab: 1 credit (25 contact hours).
Components: Laboratory, Lecture

AIT 1301(2) Course ID:006158
Principles of Instrumentation
Introduces measurement and instrumentation concepts and applications by examining the four main components of instrumentation: temperature, pressure, flow, and level. Pre-requisite: AIT 1401 or consent of instructor. Lecture/Lab: 2.0 credit (45.0 contact hours).
Components: Laboratory, Lecture

AIT 1302(2) Course ID:006159
Integrated Process Control
Covers measurement and instrumentation concepts and applications and introduces the concept of loop controls and the proper calibration of loops. Examines the importance of PID controllers in a control loop. Pre-requisite: AIT 1301 or consent of instructor. Lecture/Lab: 2.0 credits (45 contact hours).
Components: Laboratory, Lecture

AIT 1401(2) Course ID:006161
Basic Electrical Controls
Provides instruction in the integrated application of basic electrical controls including electrical motor controls with starting, reversing, and stopping devices. Pre-requisite: AIT 1101. Lecture/Lab: 2.0 credits (45 contact hours).
Components: Laboratory, Lecture

AIT 1402(1) Course ID:006162
Basic Pneumatic Controls
Introduces the student to pneumatic speed control circuits. Uses air pressure regulators and flow controls to obtain cylinder speeds. Pre-requisite: AIT 1102 or consent of instructor. Lecture/Lab: 1.0 credit (22.5 contact hours).
Components: Laboratory, Lecture

AIT 1403(1) Course ID:006163
Basic Hydraulic Controls
Provides instruction in hydraulic speed and pressure control, including flow control valves, metering circuits, pressure reducing valves, and sequence valves. Pre-requisite: AIT 1102 or consent of instructor. Lecture/Lab: 1.0 credit (22.5 contact hours).
Components: Laboratory, Lecture
A IT 1501(2)    Course ID:006164
Intermediate Electrical Controls
Provides instruction in the integrated application of advanced industrial controls for electrical systems. Emphasizes variable frequency drives, proximity sensors, SCR speed controls. Pre-requisite: AIT 140 or AIT 1401 or consent of instructor. Lecture/Lab: 2.0 credits (45 contact hours).
Components: Laboratory, Lecture

A IT 1502(1)    Course ID:006165
Intermediate Pneumatic Controls
Provides instruction in the integrated application of advanced industrial controls for pneumatic systems. Emphasizes pneumatic logic circuits. Pre-requisite: AIT 1402 or consent of instructor. Lecture/Lab: 1.0 credit (22.5 contact hours).
Components: Laboratory, Lecture

A IT 1503(1)    Course ID:006166
Intermediate Hydraulic Controls
Provides instruction in the integrated application of advanced industrial controls for hydraulic circuits. Emphasizes hydraulic synchronization circuits and multi-pressure circuits. Pre-requisite: AIT 1403 or consent of instructor. Lecture/Lab: 1.0 credit (22.5 contact hours).
Components: Laboratory, Lecture

A IT 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

A IT 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

A IT 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

A IT 2001(2)    Course ID:006167
Integrated Process Management
Emphasizes project team organization. Introduces the following concepts: cycle time, production time, first pass yield, and barrier identification. Pre-requisite: AIT 130 or Consent of Instructor. Lecture/Lab: 2.0 credits (45 contact hours).
Components: Integrated Laboratory, Integrated Lecture

A IT 2002(2)    Course ID:006168
Quality Control and SPC
Introduces quality control including understanding acceptance criteria with tolerances, data collection, and data reporting. Pre-requisite: AIT 130 or Consent of Instructor. Lecture/Lab: 2.0 credits (45 contact hours).
Components: Integrated Laboratory, Integrated Lecture

A IT 2101(1)    Course ID:006169
Predictive/Preventive Maintenance and Lubrication
Focuses on maintenance techniques and procedures used with advanced and highly technical industrial machinery. Pre-requisite: AIT 1101 or consent of instructor. Lecture/Lab: 1.0 credits (22.5 contact hours).
Components: Laboratory, Lecture

A IT 2102(1)    Course ID:006170
Power Transmission Systems
Focuses on maintenance techniques and procedures used with advanced and highly technical industrial machinery including v-belt and shaft drives, couplings, chain drives, bearings and seals, brakes and clutches. Pre-requisite: Reading and Mathematics assessment exam scores above KCTCS developmental placement level or successful completion of prescribed developmental courses or consent of instructor. Lecture/Lab: 1.0 credit (22.5 contact hours).
Components: Lecture

A IT 2103(2)    Course ID:006171
Advanced Mechanical
Focuses on various installation methods required for advanced and highly technical industrial equipment components. Pre-requisite: Reading and Mathematics assessment exam scores above KCTCS developmental placement level or successful completion of prescribed developmental courses or consent of instructor. Lecture/Lab: 2.0 credits (45 contact hours).
Components: Integrated Laboratory, Integrated Lecture

A IT 2701(1)    Course ID:006943
Introduction to PLCs
Examines fundamental architecture of programmable logic controllers as it pertains to industrial applications and incorporates ladder logic principles, commonly used instruction language, editing, program navigation and program analysis. Pre-requisite: AIT 1401 or consent of instructor. Lecture/Lab: 1.0 credit (22.5 contact hours).
Components: Laboratory, Lecture

A IT 2702(1)    Course ID:006944
Introduction to Robotics
Investigates underlying principles, applications and fundamentals of 6-axis robotics including manual manipulation, execution of existing robotic program file, modification of target parameters, and safety interlocks. Pre-requisite: AIT 1401. Lecture/Lab: 1.0 credit (22.5 contact hours).
Components: Laboratory, Lecture

AMS American Military Studies

AMS 101(2)    Course ID:000907
Introduction to the Army
This introductory level course is designed to give students an appreciation for the role the Army currently plays in our society. The course covers the history of the Army and the roles and relationships of the Army within our society. The course also covers some of the basic skills necessary for today’s leaders to include oral presentation, time management, map reading, basic rifle marksmanship and squad tactics.
Components: Lecture
Attributes: Technical

AMS 102(2)    Course ID:000782
Introduction to Leadership
This course is designed to acquaint the student with the fundamental skills necessary to be a leader, both in military and civilian context. Course also covers basic military map reading skills. Pre-requisites: None.
Components: Lecture
Attributes: Other

AMS 211(2)    Course ID:004854
Advanced Leadership I
This course focuses on both theoretical and practical aspects of leadership. Students will examine topics such as written and oral communication, effective listening, assertiveness, personality, adult development, motivation, and organizational culture and change. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical

AMS 250(1)    Course ID:005380
Basic Military Science Lab
A hands-on pracicum which exposes the student to the military skills required for basic technical and tactical competence to enter the Advanced Course. Laboratory, two hours per week and two week-end exercises. May be repeated to a maximum of four credits. Practicum: 1 credit (30 contact hours).
Components: Practicum
Attributes: Technical

ANT Anthropology

ANT 101(3)    Course ID:000485
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 - Social Science

ANT 130(3)    Course ID:000044
Introduction to Comparative Religion
Introduces students to a comparative analysis of world religions, emphasizing beliefs, rituals, artistic expressions, and cultural and social organization. Includes both Eastern and Western religions. (Same as ANT 130), Lecture: 3 credits (45 contact hours).
Components: Lecture
Course Equivalents: REL 130
Attributes: Cultural Studies, AH - Arts and Humanities, SB - Social Behavior Science

ANT 160(3)    Course ID:002204
Cultural Diversity in the Modern World
Introduces the student to the diversity of human cultural experience in the contemporary world. Focuses on gaining an appreciation for the common humanity and uniqueness of all cultures; creating sensitivity toward stereotypes and ethnocentrism, and understanding the distinctions between ‘race’, ethnicity and racism. Features extended descriptions of the cultural dynamics of the culture(s) with which the instructor has worked. Directed at non-majors. Lecture: 3 credits.
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

ANT 223(3)    Course ID:000043
Introduction to Cultural Anthropology
Examines variations in beliefs, behaviors, and institutions of different peoples. Acquaints the student with knowledge of how anthropological concepts and knowledge are used to understand and appreciate cultural diversity. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading OR completion of developmental reading courses. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

ANT 224(3)    Course ID:002196
Native People of North America
Surveys the aboriginal Native American cultures of North America, and of the impact of four centuries of British, French, Spanish and Russian contact on the Indian communities. Consider the status of Native Americans in present-day North America. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

ANT 225(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: SB - Social Behavior Science

ANA Anatomy and Neurobiology

ANA 209(3)    Course ID:004701
Principles of Human Anatomy
The structure of the human body will be examined at various levels: cellular, tissues and organ systems. The gross anatomical arrangement of the body will be studied in a system-by-system format relating structure to function and the fundamentals of human embryology/information with adult anatomy. The central nervous system will be emphasized. Pre-requisite: Introductory biology or zoology. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science
Food and Culture
Examines the way values and behaviors related to food production and consumption are shaped by the physical and cultural environment. Draws data from non-Western and Western cultures. Discusses implications of cultural factors for contemporary issues in nutrition. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading OR completion of developmental reading courses. Lecture: 3 credits (45 contact hours)

Components:
Attributes: Technical, SB - Social Behavior Science

ANT 240(3) Course ID:002206
Introduction to Archaeology
Introduces the theories, techniques, and strategies used by archaeologists to recover and interpret information about past cultures. Lecture: 3 credits (45 contact hours)

Components:
Attributes: Technical, SB - Social Behavior Science

ANT 241(3) Course ID:000045
Origins of Old World Civilization
Surveys cultural developments in the Old World from the earliest times to the beginning of civilization. Lecture: 3 credits (45 contact hours)

Components:
Attributes: Technical, SB - Social Behavior Science

ANT 242(3) Course ID:000046
Origins of New World Civilization
Surveys the origin and growth of prehistoric Native American cultures as revealed by archaeological data. Lecture: 3 credits (45 contact hours)

Components:
Attributes: Technical, SB - Social Behavior Science

APS Apprenticeship Studies

APS 201(20 - 40) Course ID:000048
Apprenticeship Studies
Complements specialized study in a national or state approved apprenticeship curriculum (i.e. 2000 hours per year on the job in a supervised work environment and 144 hours per year of related classroom instruction). Pre-requisite: Completion of national/state certified apprenticeship program. Lecture/Lab: 20-40 contact hours (144 contact hours)

Components:
Attributes: Technical

AP 106(2) Course ID:004538
Process Chemistry
Presents fundamental knowledge of chemistry necessary for process operations. Focuses on the basics of chemistry as they apply to water treatment and hydrocarbon processing. Includes, but are not limited to: basic chemical terminology, molecular formulas, structural formulas, common chemical symbols, and the chemical nature of the operator’s job, work environment, and products. Pre-requisite: Test at MAT126 eligible or MAT 065 or Consent of Instructor. Lecture: 2.0 credits (30 contact hours)

Components:
Attributes: Technical

AP 108(2) Course ID:004539
Stationary Equipment
Presents fundamental knowledge of the operation and troubleshooting of stationary equipment. Provides a solid foundation on which to build sound maintenance and operations programs. Covers common equipment design, operating instructions, troubleshooting aids to help identify malfunctions, guides to handling emergency situations and routine scheduled maintenance tasks. Includes topics on heat exchangers, heat transfer, cooling towers, and refrigeration. Pre-requisite: Test at MAT126 eligible or MAT 065 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours)

Components:
Attributes: Technical

AP 142(4) Course ID:004541
Instrumentation
Develops an understanding of how to control and operate processes. Involves work on real life simulators to ensure an understanding of process operations has been achieved. Includes measurement fundamentals and control strategies as applied to unit operations, industrial chemical operations, and operating tactics and strategies. Provides basic instruction in process control instrumentation as it relates to the manufacturing operations and will promote smoother, more efficient control of automated systems. Pre-requisite: APT 108 with a grade of C or greater OR Instructor Consent. Lecture/Lab: 4.0 credits (105 contact hours)

Components:
Attributes: Technical

AP 144(4) Course ID:004542
Process Operations
Develops an understanding of modern processing techniques, practical examples of normal and abnormal operating situations, and advanced training in enhancing productivity while cutting operating costs. Provides maintenance personnel and technicians an understanding of the overall process and their roles in maintaining efficient production rates. Involves work on real life simulators to insure an understanding of process operations. Includes unit operations, industrial chemical operations, and a variety of equipment used in industrial processes. Pre-requisite: APT 108 with a grade of C or greater or Permission of Instructor. Lecture: 2 credits (30 contact hours). Laboratory: 2 credits (120 contact hours/60:1 ratio).

Components:
Attributes: Technical

AP 146(2) Course ID:004543
Process Applications
Develops an understanding of how to control and operate processes. Involves work on real life simulators to insure an understanding of process operations. Includes a study of interactive control strategies in unit operations, industrial chemical operations, and compressor operations and applications. Pre-requisite: APT 108 with a grade of C or greater or Permission of Instructor. Lecture: 2 credits (30 contact hours)

Components:
Attributes: Technical

AP 154(6) Course ID:005336
Power Plant Practice
Develops an understanding of power plant basics, systems, and equipment and how they are utilized to safely start-up, shutdown, control, and operate a power generation unit. Includes safe operating tactics, strategies, and procedures as they apply to unit operations and industrial chemical operations. Applies various 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:
Attributes: Technical

AP 155(2) Course ID:005337
Power Plant Protection
Develops an understanding of how to safely start-up, shutdown, control and operate a power generation unit. Includes safe operating tactics, strategies, and procedures as they apply to unit operations and various safety and protection equipment incorporated into unit operations. Pre-requisite: APT 108 with a grade of C or greater. Lecture: 1 credit (15 contact hours). Laboratory: 1 credit (60 contact hours)

Components:
Attributes: Technical

AP 159(3) Course ID:005510
Lineman Technology I
Trains the student in the use of and/or assembly of materials, tools, and equipment common to the electric utility industry. Provides an overview of the energy delivery system, personal responsibility in regard to safety and job requirements, qualifies the student to climb poles, and trains the student to perform tasks typically required of entry-level apprentices. Pre-requisite: APT 108 or Consent of Instructor. Co-requisite: APT 159, EET 150, EET 151. Lecture: 3 credits (45 contact hours)

Components:
Attributes: Technical

AP 159(4) Course ID:005511
Lineman Technology I Lab
Provides hands on experience in the use of and/or assembly of materials, tools, and equipment common to the electric utility industry. Provides an opportunity for the student to climb poles and perform tasks typically required of entry-level apprentices. Pre-requisite: APT 108 or Consent of Instructor. Co-requisite: APT 159, EET 150, EET 151. Lecture: 4 credits (240 contact hours)

Components:
Attributes: Technical

AP 202(3) Course ID:004545
Federally Mandated Training
Presents a fundamental knowledge of OSHA, EPA and DOT regulations as concerned with hazardous waste generators and the fundamental knowledge necessary for process operations to qualify for hazardous response to incidents. Covers the required skills to qualify them for HAZWOPER Operations level response. Includes, but are not limited to: 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:
Attributes: Technical
APT 204(1) Course ID:004546
Safety Skills Training
Presents a fundamental knowledge of OSHA, EPA and DOT regulations as concerned with hazardous waste generators. This fundamental knowledge is necessary for process operations to qualify for hazardous response to incidents. The student will be trained in the required skills to qualify them for HAZWOPER Operations level response. The course studies include, but are not limited to: Hazcom, Hazzwoper Operations level, personal protective equipment, working at elevated heights, respirators, SCBAs, and specific hazardous materials. (This course will be presented in a semester format.) Pre-requisite: APT 148 with a grade of C or greater. Co-requisite: APT 202. Laboratory: 1 credit (60 contact hours/60:1 ratio).
Components: Lecture
Attributes: Technical

APT 251(2) Course ID:001036
Application of Process Operations
Prepares the student to demonstrate a working knowledge of the application of the various components involved in process operations. Pre-requisite: Instructor Consent. Lecture/Lab: 2.0 credits (75 contact hours).
Components: Lecture
Attributes: Technical

APT 258(3) Course ID:005512
Lineman Technology II
Expands training in the use of and/or assembly of materials, tools, and operation of equipment common to the electric utility industry. Provides pole top rescue techniques, Kilo-Watt Hour (KWH) meter reading, installation of overhead service, voltage testing, operation of bucket truck, splicing and other knowledge and skills required of intermediate-level apprentices. Pre-requisite: APT 158, APT 159, EET 150, EET 151. Co-requisite: 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 259. Laboratory: 4 credits (240 contact hours).
Components: Laboratory
Attributes: Technical

ART 291(2 - 3) Course ID:001037
Instructor Consent Required
Special Problems in Applied Process Technologies
Provides additional experience in identified areas of student's need. The subject area and/or tasks must be approved by an assigned instructor. Must also have a component where the student is evaluated by an industry professional. Pre-requisite: Consent of Instructor. Discussion: 2.0 - 3.0 credits (45-135 contact hours).
Components: Discussion
Attributes: Technical

ART 100(3) Course ID:000049
Introduction to Art
Provides a basic overview of the study, language, history and cultural relevance of visual art and is designed primarily for non-art majors. Utilizes visually-enhanced lectures and may include optional introductory studio experiences. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, Course Also Offered in Modules

ART 104(3) Course ID:004346
Introduction to African Art
Examines the arts of Africa, including sculpture, painting, pottery, textiles, architecture, altar arts, human adornment and performance art, on the basis of style, iconography, and function, and in relation to religious, political, market and daily contexts. Explores the ways in which Africa has been conceived and deconstructs the assumptions shaping each approach. Addresses the processes (and problems) of collecting and displaying African art throughout the course. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

ART 105(3) Course ID:000035
Ancient Through Medieval Art History
Surveys the historical development of art and architecture with primary emphasis on cultures of Egypt, Western Asia, Greece, Rome and Medieval Europe. Pre-requisite: English and Reading assessment exam scores above the developmental placement level or the successful completion of prescribed developmental course(s). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ART 106(3) Course ID:000036
Renaissance Through Modern Art History
Surveys the historical development of Western art and architecture from the 14th Century through the present. Pre-requisite: English and Reading assessment exam scores above the developmental placement level or the successful completion of prescribed developmental course(s). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ART 108(3) Course ID:007380
Introduction to World Art
Provides a basic overview of the study, language, history, and relevance of the visual art from world cultures and designed primarily for non-art majors. Utilizes visually-enhanced lectures and may include optional introductory visual experiences. Pre-requisite: RDGS 185, ENC 091. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ART 110(3) Course ID:004110
Drawing I
Introduction to basic drawing skills and concepts. Projects in line, value, space and composition are among the topics that will be explored in a variety of media. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 112(3) Course ID:004111
2-Dimensional Design
Investigates design principles of balance, unity and variety, emphasis, and rhythm, and their application to the elements of art, including line, shape, value and color. Uses a variety of media. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 113(3) Course ID:004112
3-Dimensional Design
Investigates three-dimensional form and spatial design, including line, plane, mass, surface and structure. Includes the study of various materials, tools, and sculptural techniques. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 121(3) Course ID:004015
School Art
Introduction to art to and the teaching of art in the lower (1-3) elementary grades. Lecture: 3 credits. Laboratory: 0 credits.
Components: Laboratory, Lecture

ART 201(3) Course ID:000621
Ancient Art History
Examines the art and architecture of the ancient Mediterranean, focusing on one or more of the cultures of Greece, Rome, Egypt, and the Near East. Pre-requisite: (English and Reading assessment exam scores above the developmental placement level or the successful completion of prescribed developmental course (s)) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

ART 202(3) Course ID:000016
Modern 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:000006
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 205(3) Course ID:015848
African American Art
Provides an introduction to African American Art. Examines the creation of the painting, sculpture, graphic arts, photography, and performance art from the early settlements of the United States to the present. Pre-requisite: Current placement scores for college level-reading established by KCTCS, or completion of RDGS 030 or RDGS 185, and ENC 091. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

ART 208(3) Course ID:000017
Introduction to Art Education
Investigates the theoretical, historical, psychological, and sociological foundations of art education in a lecture-lab format. Provides a critical examination of individual and group activities currently offered in the elementary school art program and includes lectures, curriculum design, evaluation of processes and techniques. Exploration and analysis of design, media and concepts, with special attention to classroom application. ART 208 satisfies the state art requirement for general elementary teacher requirement certification (4 hours of field work required). Lecture: 1.0 credit hours; Laboratory: 2.0 credit hours.
Components: Laboratory, Lecture
Attributes: Other

ART 210(3) Course ID:004114
Drawing II
Advanced studio investigation of drawing techniques and concepts. Projects in line, value, composition and space will be investigated through individual development of style and expression, with extensive use of figure models. Pre-requisite: ART 110. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other
ART 211(3)  Course ID:004113
Life Drawing
Introduces basic life drawing skills and concepts. Explores topics such as projects in line, value, space, and composition in a variety of media with the human form as the subject matter. Includes drawings in class from a nude human model. Pre-requisite: ART 110. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 220(3)  Course ID:004115
Painting I
Studio investigation of the technical and formal concerns of painting, including an understanding of color theory, materials, paint application, and image making. Pre-requisite: ART 110 or Consent of Instructor. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 211(3)  Course ID:004116
Painting II
Includes advanced studio investigation of the technical and formal concerns of painting. Continues the development of individual style and personal expression. Pre-requisite: ART 220. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 231(3)  Course ID:007075
Jewelry/Metals I
Introduces the aesthetic and technical issues relating to basic metalsmithing techniques such as sawing, filing, piercing, forging, forming, soldering, and finishing. Exploits demonstrations and hands-on work to present the concepts of metal manipulation. Emphasizes instructor-led critiques. Provides an introduction to historical and contemporary metal work. Lecture/Lab: 3.0 credit (90 contact hours).
Components: Lecture
Attributes: Other

ART 223(3)  Course ID:007076
Jewelry/Metals II
Continues the development of techniques introduced in Jewelry/Metals I. Emphasizes problem-solving skills and the development of personal creativity. Stresses the aesthetic and technical issues relating to raising, enameling, forging, casting, and more advanced sculptural processes. Includes discussion and critique as integral parts of the coursework. Pre-requisite: ART 231 or Consent of instructor. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 240(3)  Course ID:004117
Ceramics I
Introduces a variety of forming and finishing techniques used in working with clay and glaze. Hand building, wheel throwing, surface alteration and glazing will be investigated, along with a brief overview of ceramic history, aesthetics and studio technique. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other, Course Also Offered in Modules

ART 241(3)  Course ID:004118
Ceramics II
Continues studio investigation of ceramic techniques in hand-building and/or wheel throwing, glazing, surface decoration, glazing and firing. Continued development of individual style and personal expression. Pre-requisite: ART 240. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 251(3)  Course ID:016141
Graphic Communication I
Provides an introduction to graphic design principles and methods and techniques used to incorporate type and image. Applies the elements and principles of design and basic-color theories for design concepts. Pre-requisite or Co-requisite: ART 110 & ART 112, OR consent of instructor. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 252(3)  Course ID:016142
Typography
Introduces core principles of typography through a series of progressively complex studio assignments supported by readings, lectures, and software tutorials. Pre-requisite: ART 251 OR consent of instructor. Lecture/Lab: 3.0 credit hours (90 contact hours).
Components: lecture
Attributes: Other

ART 260(3)  Course ID:004119
Sculpture I
Studio investigation of the technical and formal concerns of three-dimensional expression. Basic sculptural methods of modeling, casting, carving and assembling will be explored in a variety of media. Pre-requisite: ART 110, ART130. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 261(3)  Course ID:006207
Sculpture II
Continues the development of sculptural techniques started in Sculpture I. Exploration of subject matter and personal creativity will be emphasized. Students will develop and utilize problem solving skills. Pre-requisite: ART 260 or consent of instructor. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 270(3)  Course ID:006208
Printmaking I
Introduces the possibilities and potential of the printmaking media for generating fine art ideas and images. Explores traditional and contemporary printmaking processes of monotype and monoprint, relief, lithography, intaglio, and stencil. Covers black and white and multiple color printing methods, introduces printmaking vocabulary and aesthetics. Pre-requisite: (ART 110 and ART 120) or consent of instructor. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 271(3)  Course ID:006209
Printmaking II
Explores concepts and techniques in intaglio, lithography, screen-print and/or relief printing with an introduction to contemporary computer/digital aided printmaking processes. Stresses individual expression by creating original imagery while continuing to learn about printmaking as a process. Emphasizes two-dimensional design and color theory concepts and drawing skills. Pre-requisite: ART 270 or permission of instructor. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 281(3)  Course ID:006211
Digital Photography
Introduction to the tools, skills, techniques and applications needed to create and manipulate digital photographs and to develop an understanding of photography as a fine art medium. Instruction will include the use of the digital camera and its controls to compose and capture photographs, scanning, printing and using Adobe Photoshop as a “digital darkroom”. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 282(3)  Course ID:006212
Digital Photography II
Emphasizes the creation of fine art photographs that reflect the intent and vision of the photographer. Stresses the technical and aesthetic issues relating to image capture, manipulation, printing and presentation. Explores visual and conceptual skills, professional workflow and photographic history. Pre-requisite: ART 281 or permission of instructor. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture
Attributes: Other

ART 283(3)  Course ID:006213
Survival Skills for Artists
Introduces skills needed to attain a higher level of education and/or a career in the visual arts. Explores the wording and formatting of credentials and statements. Covers the critical language of art, digital and printed portfolios, exhibiting artwork, marketing, career opportunities, the hazards of art materials and setting up an art studio. Pre-requisite: 9 credits of ART 100 / 200 level classes or permission of instructor. Lecture: 2.0 credits (30 contact hours), Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture

ART 289(1 - 3)  Course ID:005614
Instructor Consent Required
Directed Studies in Art: (Topic)
Provides an opportunity to cover topics outside the normal range of studio classes or further investigation of topics and techniques covered in studio classes. Pre-requisite: Consent of instructor. Laboratory: 1-3 credits (30-90 contact hours).
Components: Laboratory
Attributes: Other

ASL American Sign Language

ASL 101(3)  Course ID:005753
American Sign Language I
A functional-notational approach to learning beginning American Sign Language (ASL). Development of basic knowledge of and understanding of conversational ASL and cultural features of the language and community. Lecture: 3 credits (45 contact hours). Laboratory: 0 credits (15 contact hours).
Components: Laboratory, Lecture
Attributes: Cultural Studies, University Course (Eastern Kentucky University)

ASL 102(3)  Course ID:005754
American Sign Language II
Continued development of basic knowledge of and understanding of conversational ASL and cultural features of the language and community. Pre-requisite: ASL 101 with a minimum grade of C or permission of instructor. Lecture: 3 credits (45 contact hours). Laboratory: 0 credit (15 contact hours).
Components: Laboratory, Lecture
Attributes: Cultural Studies, University Course (Eastern Kentucky University)

ASL 201(3)  Course ID:005755
American Sign Language III
Development of intermediate expressive and receptive ASL skills and cultural features of the language and community. Pre-requisite: ASL 102 with a minimum grade of C or permission of instructor. Lecture: 45 contact hours. Laboratory: 15 contact hours.
Components: Laboratory, Lecture
Attributes: University Course (Eastern Kentucky University)

ASL 202(3)  Course ID:005756
American Sign Language IV
Continued development of intermediate expressive and receptive ASL skills and cultural features of the language and community. Pre-requisite: ASL 201 with a minimum grade of C or permission of instructor. Lecture: 45 contact hours. Laboratory: 0 credits (15 contact hours).
Components: Laboratory, Lecture
Attributes: University Course (Eastern Kentucky University)
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: MT085 and ENC091 or equivalent as determined by KCTCS placement examination. Lecture: 3 credits (45 contact hours).
Components: Lecture
Course Equivalents: BIO 155
Attributes: SN - Science

AST 191(3) Course ID:000060
The Solar System
Emphasizes the nature, origin and evolution of planets, satellites, and other objects in the Solar System. Includes historical astronomy, the naked eye phenomena of the sky, and modern solar system discoveries made by spacecraft. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

AST 192(3) Course ID:000062
Stars, Galaxies and the Universe
Emphasizes the Sun and the universe outside the Solar System. Has a principal theme of the origin and evolution of stars, galaxies and the universe at large. Includes topics of black holes, quasars, and the big bang model of the universe. Pre-requisite: MAT085 or a minimum ACT math score of 18. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

AST 195(1) Course ID:000065
Introductory Astronomy Laboratory
Involves performance of exercises in both planetary and stellar astronomy, including Kepler’s Laws of Planetary Motion and Newton’s Laws of Motion. Examines the functions and limitations of different types of telescopes and mounts. Includes observation of the sun, moon, planets, binaries, galaxies, and nebulae. Pre-requisite or co-requisite: AST101 or AST191 or AST192; MAT 085 or two years of high school algebra; or consent of the instructor. Lab: 1.0 (15 Contact Hours).
Components: Laboratory
Attributes: SL - Science Laboratory

Aircraft Systems

ATE 104(3) Course ID:007116
Introduction to Aircraft Maintenance II
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 106(3) Course ID:007116
Introduction to Aircraft Maintenance III
Provides instruction in reading and interpretation of basic industrial and aircraft blue prints, basic handling and ground service techniques of the aircraft, the use of maintenance publications, aircraft mechanic privileges and limitations, and the use and completion of required forms and records. Pre-requisite: Computer Literacy or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 108(3) Course ID:007117
Introduction to Aircraft Maintenance IV
Provides an understanding of basic hydraulic functions, the fabrication of tubing and flex hoses as well as seal comparability. Includes instruction in structural inspection, materials and fasteners, and repair methods. Pre-requisite: Computer Literacy or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 202(3) Course ID:007118
Aircraft Structures I
Covers the principles of sheet metal layout, bending, and rivet installation. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 204(3) Course ID:007119
Aircraft Structures II
Provides instruction in the inspection, service and repair of welded aircraft assemblies and structures, metal and composite aircraft structures, including laminated and honeycomb structures, plastic materials, interior furnishings and access openings. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/ Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 206(3) Course ID:007120
Aircraft Structures III
Includes inspection of airframes to determine airworthiness. Covers the methods and techniques used in the assembly of subunits and major components of the airframe; and the rigging of primary, secondary and auxiliary control surfaces. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/ Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 208(3) Course ID:007121
Aircraft Structures IV
Provides instruction in the repair of wood structures, the inspection, testing, repair, selection, and installation of aircraft fabric covering; and the identification, application and inspection of tubing 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 various techniques in fueling. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/ Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 228(3) Course ID:007125
Aircraft Systems IV
Covers checking, 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 for the inspection, checking and servicing of speed and take-off warning systems, electrical brake controls, antiskid systems, and autopilot systems; and the pilot-static system, floating compass system and the gyros used for flight instruments. Includes the role of mechanics when working with precision instruments. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 242(3) Course ID:007126
Aircraft Powerplants I
Covers theory and development of the aircraft internal combustion engine as well as instruction in the use of engine construction and repair. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/ Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 244(3) Course ID:007127
Aircraft Powerplants II
Covers inspection, checking, servicing and repair of opposed and radial engines and reciprocating engine installation. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

Aircraft Systems

ATE 100(1) Course ID:007113
Aviation Math
Covers mathematics related to the aerodynamic and physical forces acting on an aircraft in flight. Pre-requisite: Computer Literacy or Consent of Instructor. Lecture/Lab: 1.0 credit (40.5 contact hours).
Components: Lecture
Attributes: Technical

ATE 102(3) Course ID:007114
Introduction to Aircraft Maintenance I
Teaches knowledge and skills necessary in measuring, calculating, and documenting aircraft weight and balance. Provides instruction in the identification, cause, prevention, removal and treatment of corrosion. Includes interior and exterior cleaning of the aircraft. Pre-requisite: Computer Literacy or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 104(3) Course ID:007115
Introduction to Aircraft Maintenance II
Provides instruction on the aerodynamic and physical forces acting on an aircraft in flight, basic electricity theory, concepts, components, physics, meter operation and use, battery construction and servicing, and basic principles of physics as related to aviation maintenance. Pre-requisite: Computer Literacy or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical
ATE 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
Includes the purpose, use, and selection of lubricants; repair of engine lubrication system components; and the inspection, checking, servicing, troubleshooting and repairing of engine lubrication systems, propeller synchronizer experience, and carburetor control system. 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 rate of flow indicating systems and repair of engine temperature, pressure, and rpm indicating systems. Includes the operation and overhaul of magneto and ignition harness; repair of engine ignition system components; and the inspection, check, service, troubleshooting, and repair of reciprocating and turbine engine ignition systems. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 258(3) Course ID:007133
Aircraft Powerplant Systems IV
Covers the operation, inspection and repair of fuel systems and components of aircraft fuel systems and fuel metering systems. Includes the inspection and repair of engine cooling system components, engine exhaust system components, and engine fire detection and extinguishing systems. Pre-requisite: (ATE 100 and ATE 102 and ATE 104 and ATE 106 and ATE 108) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 3.0 credits (96 contact hours).
Components: Lecture
Attributes: Technical

ATE 299(1 - 6) Course ID:004550
Instructor Consent Required
Selected Topics in Aviation Maintenance Technology: (Topic)
Various aviation maintenance topics, issues and trends will be addressed. Topics may vary from semester to semester at the discretion of the instructors; course may be repeated with different topics to a maximum of six credit hours.
Components: Laboratory, Lecture
Attributes: Technical

AUT 100(3) Course ID:001050
Brake Systems
Includes the operational theory and application of hydraulic and anti-lock brake systems; discusses disc and drum brakes. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AUT 101(2) Course ID:001051
Manual Drive Train and Axles
Involves the repair of manual transmissions and related drive train components; and the inspection, checking, servicing, troubleshooting and use of alignment. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AUT 103(3) Course ID:001052
Basic Fuel and Ignition Systems
Includes the theory, component identification, application, operation, service and repair of the basic automotive igniton, fuel, and emission systems, including related components. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AUT 104(3) Course ID:001053
Basic Fuel and Ignition Systems Lab
Provides skills necessary to diagnose and repair the automotive basic ignition, fuel, and emission systems and related components. The student may be provided a unique work experience alternating between periods of work off campus and work in a laboratory setting. Pre-requisite or Co-requisite: AUT 140. Lab: 2.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

AUT 105(1 - 6) Course ID:004550
Instructor Consent Required
Selected Topics in Aviation Maintenance Technology: (Topic)
Various aviation maintenance topics, issues and trends will be addressed. Topics may vary from semester to semester at the discretion of the instructors; course may be repeated with different topics to a maximum of six credit hours.
Components: Laboratory, Lecture
Attributes: Technical

AUT 110(3) Course ID:001050
Brake Systems
Involves the operational theory and application of hydraulic and anti-lock brake systems; discusses disc and drum brakes. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AUT 111(2) Course ID:001051
Manual Drive Train and Axles Lab
Involves the repair of manual transmissions and related drive train components; and the inspection, checking, servicing, troubleshooting and use of alignment. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AUT 112(2) Course ID:001053
Manual Drive Train and Axles Lab
Involves the repair of manual transmissions and related drive train components; and the inspection, checking, servicing, troubleshooting and use of alignment. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AUT 114(2) Course ID:001055
Basic Fuel and Ignition Systems Lab
Provides skills necessary to diagnose and repair the automotive basic ignition, fuel, and emission systems and related components. The student may be provided a unique work experience alternating between periods of work off campus and work in a laboratory setting. Pre-requisite or Co-requisite: AUT 140. Lab: 2.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

AUT 116(3) Course ID:001056
Emission Systems
Presents the theory, component identification, application, operation, service and repair of advanced automotive ignition, fuel, and emission systems, including related components. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AUT 142(2) Course ID:001056
Emission Systems
Presents the theory, component identification, application, operation, service and repair of advanced automotive ignition, fuel, and emission systems, including related components. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AUT 150(3) Course ID:001052
Basic Fuel and Ignition Systems
Includes the theory, component identification, application, operation, service and repair of the basic automotive ignition, fuel, and emission systems, including related components. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AUT 152(2) Course ID:001055
Basic Fuel and Ignition Systems Lab
Provides skills necessary to diagnose and repair the automotive basic ignition, fuel, and emission systems and related components. The student may be provided a unique work experience alternating between periods of work off campus and work in a laboratory setting. Pre-requisite or Co-requisite: AUT 140. Lab: 2.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

AUT 180(3) Course ID:001060
Automatic Transmission/Transaxle
Involves the study of the operating principles of rear and front wheel drive automatic transmissions and transaxles and the testing and diagnostic process. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AUT 181(2) Course ID:001061
Automatic Transmission/Transaxle Lab
Develops diagnostic and repair skills related to the operation of rear and front wheel automatic transmissions and transaxles. The student may be provided a work experience alternating between periods of work off campus and work in a classroom laboratory setting. Pre-requisite or Co-requisite: AUT 180. Lab: 2.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

AUT 198(1) Course ID:001062
Instructor Consent Required
Practicum
The Practicum provides supervised on-the-job work experience related to the student’s educational objectives. Students who participate in the practicum do not receive compensation. Pre-requisite: Permission of the Instructor. Practicum: 1 credit (75 contact hours).
Components: Practicum
Attributes: Technical

AUT 199(1) Course ID:001063
Instructor Consent Required
Co-op
Co-op provides supervised on-the-job work experience related to the student’s educational objectives. Students who participate in the Cooperative Education program receive compensation for their work. Pre-requisite: Permission of the Instructor. Co-op: 1 credit (75 contact hours).
Components: Co-Op
Attributes: Technical

AUT 240(3) Course ID:001064
Computer Control Systems and Diagnosis
Presents the comprehensive diagnostics of on-board computer control systems, including distributorless ignition systems. Presents the problem solving process including flowchart reading. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
AUT 241(2) Course ID:001065
Computer Control Systems and Diagnosis Lab
Introduces the skills necessary to diagnose and repair drivability problems associated with on-board computer control systems. The student may be provided a work experience alternating between periods of work off campus and work in a classroom laboratory setting. Pre-requisite or Co-requisite: AUT 240. Lab: 2.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

AUT 275(3) Course ID:006889
Hybrid and Electric Vehicle Technology
Focuses on the theories, principles, and diagnosis relating to hybrid automobiles. Pre-requisite: ADX 120 and ADX 121 and ADX 260 and ADX 261. Co-requisite: AUT 276. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

AUT 278(2) Course ID:006890
Hybrid and Electric Vehicle Technology Lab
Focuses on the theories, principles, and diagnosis relating to hybrid automobiles. The student may be provided a work-study experience alternating between periods of work off campus and work in a classroom laboratory setting. Pre-requisite: ADX 120 and ADX 121 and ADX 280 and ADX 261. Co-requisite: AUT 275. Lab: 2.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

AUT 290(1) Course ID:001066
Instructor Consent Required
Special Problems I
A course designed for the student who has demonstrated specific needs for additional training. The student may be provided a work/study experience alternating between periods of work off campus and work in a classroom laboratory setting. Pre-requisite: Permission of Instructor. Laboratory: 1 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

AUT 291(2) Course ID:001067
Instructor Consent Required
Special Problems II
A course designed for the student who has demonstrated specific needs for additional training. The student may be provided a work/study experience alternating between periods of work off campus and work in a classroom laboratory setting. Pre-requisite: Permission of Instructor. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

AUT 292(3) Course ID:001068
Instructor Consent Required
Special Problems III
A course designed for the student who has demonstrated specific needs for additional training. The student may be provided a work/study experience alternating between periods of work off campus and work in a classroom laboratory setting. Pre-requisite: Permission of Instructor. Laboratory: 3 credits (135 contact hours).
Components: Laboratory
Attributes: Technical

AUT 298(1) Course ID:001069
Instructor Consent Required
Practicum
The practicum provides supervised on-the-job work experience related to the students educational objectives. Students who participate in the practicum do not receive compensation. Pre-requisite: Permission of the Instructor. Practicum: 1 credit hour (75 contact hours).
Components: Practicum
Attributes: Technical

AUT 299(1) Course ID:001070
Instructor Consent Required
Co-operative Education Program
Co-op provides supervised on-the-job work experience related to the students educational objectives. Students who participate in the Cooperative Education program receive compensation for their work. Pre-requisite: Permission of the Instructor. Co-op: 1 credit hour (75 contact hours).
Components: Co-Op
Attributes: Technical

BAS 110(3) Course ID:016239
Workshops in Business Applications
Focuses on the application of worksheet features to business practices. Provides students with the knowledge and skills necessary to apply worksheet enhanced functions to derive charts, graphs and tables to aid in analyzing business data. Provides students the opportunity to think critically and find solutions to realistic business problems through use of available data analysis tools. Pre-requisite: Computer Literacy or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

BAS 120(3) Course ID:000095
Personal Finance
Provides information needed to make intelligent choices and to take effective action in the management of personal resources. Applies financial planning, buying, borrowing, saving, budgeting, investing, insurance, and taxes to personal finances. Pre-requisite: Completion of or concurrent enrollment in MAT 65 or higher level math or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: 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. Introduces a working knowledge of platform management and simple social media marketing strategy. Lecture: 3.0 credits (45 contact hours). Pre-requisite: Placement scores for college level reading or completion of developmental reading courses.
Components: Lecture
Attributes: Technical

BAS 126(3) Course ID:016680
Social Media Marketing: Project Management and Implementation Strategies
Prepares students to create a comprehensive social media marketing campaign, applicable to any business or organization. Learn intermediate social media strategies and best practices for engagement. Introduces the student to social media policy, procedure, and engagement guidelines that will explain how all stakeholders and groups in an organization should monitor and participate in social media interactions. Pre-requisite: BAS 125. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

BAS 155(3) Course ID:000100
Personal Selling
Introduces the professional selling process involving a series of interrelated activities with emphasis on planning and delivery of sales presentations and simulation and role playing of sales techniques. Examines the six selling steps including--prospecting, qualifying, presenting, answering objections, closing, and the after-sale service. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

BAS 160(3) Course ID:000101
Introduction to Business
Introduces business careers, terminology, and the interrelationships of business topics. Presents the complexities of business and the impact on communities and their economies. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
BAS 260(2) Course ID:004432
Professional Development and Protocol
Prepares students approaching the major career transition from college to work either as a graduating student or as a cooperative education student. Focuses on acceptable business protocol and how to project a professional image. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

BAS 267(3) Course ID:000107
Introduction to Business Law
Introduces the state and federal court systems, tort and criminal law, law of contracts, partnership, sale of goods, government regulations, bailment, negotiable instruments, methods of research, and the judicial system (discovery, trial, and appellate processes). Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BAS 270(1) Course ID:000106
Business Employability Seminar
Creates an error-free portfolio of business employment documents, using computer technology to assist with composition, proofreading, and formatting. Demonstrates proper interviewing skills through mock interviews. Course is offered on a Pass/Fail basis. Pre-requisite: (CIT 105 Introduction to Computers, Sophomore Standing, and Business Administration Program Students only) or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Enrichment Career Counseling, Technical

BAS 274(3) Course ID:000108
Human Resource Management
Introduces basic methods of recruiting, selecting, training, compensating, and maintaining a productive workforce. Examines concepts of effective employee relations including collective bargaining, contract administration, and safety and health programs. Emphasizes techniques for systematic human resource planning and development of policies consistent with government regulations. Pre-requisite: BAS 160 and BAS 283 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BAS 280(1 - 4) Course ID:004474
Business Internship
Provides an opportunity for a work experience related to the student's educational objective and concepts learned in courses, 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 prior supervisory experience. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BAS 287(2) Course ID:000114
Supervisory Management
Examines the roles and responsibilities of the supervisor, emphasizing human relations skills while recognizing the behavioral factors of individuals and groups in the work environment. Applies conceptual knowledge base and skills to identify and develop the supervisor's role and responsibilities. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BAS 288(3) Course ID:000115
Personal and Organizational Leadership
Recognizes personal leadership skills that are essential for effective team and organizational guidance while examining organizational leadership theories that promote personal and organizational goal setting, ethical management, time management, human relations, effective communication, and fundamentals of synergy. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BAS 289(3) Course ID:000531
Operations Management
Introduces the fundamental concepts, principles, and practices of operations management. Introduces and examines operations management careers, terminology and concepts in both manufacturing and service organizations. Pre-requisite: BAS 160 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BAS 290(3) Course ID:000579
Management, Ethics and Society
Examines the business leadership-government-society relationship. Includes business leadership, ethics, decision-making, social costs, corporate responsibility, governance, global trends and the role of government in business. Pre-requisite: BAS 283 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BAS 291(3) Course ID:000116
Retail Management
Examines retail structure, merchandising, promotions, store control, and decision. Identifies fundamental principles of store organization, consumer behavior, and customer service. Includes retailing trends, opportunities, and problems. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

BAS 293(3) Course ID:000524
Principles of Finance
Explains 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 297(0.1 - 6) Course ID:000119
Instructor Consent Required
Selected Topics in Business Management: (Option Topic)
Technological developments, new business issues, and/or business topics are presented and studied. Pre-requisite: Consent of Instructor. Lecture: 0.1-6.0 credits (1.5-90 contact hours).
Components: Lecture
Attributes: Technical

BAS 2875(0.6) Course ID:005159
Decision Making and Problem Solving in a Quality Culture
Identifies principles of effective decision making and problem solving with emphasis on enhancing quality workplace cultures. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

BBT 100(3) Course ID:016692
Introduction to Cellular Technology
Introduces the world of wireless communications. Provides information to enhance an understanding of how we use radio frequencies to transmit signals, data, and voice over the airwaves. Provides information regarding how to correctly set up and troubleshoot a variety of equipment used in radio communications. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

BEX 100(3) Course ID:001118
Basic Electricity for Non-Majors
This course introduces non-majors to the basic physics of electricity. Students apply Ohm's law; measure resistance, voltage, ohms, watts and amps; construct various types of electrical circuits; select wire and fuse sizes; and learn to troubleshoot an electric motor and coil. Co-requisite: BEX 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

BEX 101(2) Course ID:000119
Basic Electricity Lab for Non-Majors
This is a hands-on class designed to allow the student to use the concepts, principles, and theories covered in Basic application. Electricity for non-majors BEX 100. Co-requisite: BEX 100. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical
BIO 112(3) Course ID:000127
Introduction to Biology
Basic study of structure, function and interactions of living organisms including cell theory, genetics, energetics, evolution and ecology. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science, Course Also Offered in Modules

BIO 113(1) Course ID:000133
Introduction to Biology Lab
Emphasizes basic laboratory studies of structure, function and interactions of living organisms including cell theory, genetics, energetics, evolution, and ecology. Pre-requisite: BIO 112 (if a student taking the courses concurrently fails or withdraws from BIO 112, they may continue to complete and earn credit for BIO 113 with instructor’s consent). Laboratory: 1 credit (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory, Course Also Offered in Modules

BIO 114(3) Course ID:000167
Biology I
Examines basic biological concepts such as cell structure and function, metabolism, the chemical basis of biology, protein synthesis, genetics, and evolution with emphasis placed on the cellular level. Co-requisite: BIO 115. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

BIO 115(1) Course ID:000165
Biology Laboratory I
A two-hour laboratory to be offered concurrently with BIO 114. Designed to acquaint the student with the use of analytical techniques in biology, theory, and methods involved in experimentation, in order to facilitate a greater understanding of concepts presented in lecture and the way in which information is gathered in science. Laboratory: 1 credit (30 contact hours). Co-requisite: BIO 114.
Components: Laboratory
Attributes: SL - Science Laboratory

BIO 116(3) Course ID:000168
Biology II
Examines basic biological concepts such as ecology, biological diversity (to include the kingdoms of life), reproduction, growth, and development, with emphasis placed on multicellular systems. Co-requisite: BIO 117. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

BIO 117(1) Course ID:000166
Biology Laboratory II
A two-hour laboratory to be offered concurrently with BIO 116. Designed to acquaint the student with the use of analytical techniques in biology, theory, and methods involved in experimentation in order to facilitate a greater understanding of concepts presented in lecture and the way in which information is gathered in science. Laboratory: 1 credit (30 contact hours). Co-requisite: BIO 116.
Components: Laboratory
Attributes: SL - Science Laboratory

BIO 118(3) Course ID:004988
Microbes and Society
An introduction to the science of microbiology addressing the role of microorganisms in nature and in human welfare. Contemporary topics will include infectious diseases, genetic engineering, the environment and biological warfare. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

BIO 120(3) Course ID:000126
Human Ecology
Interrelationships among humans, other organisms and the environment including principles of energy and matter, resource use, biogeochemical cycling, trophic structures, sustainability and human impacts by humans. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

BIO 121(1) Course ID:000191
Introduction to Ecology Laboratory
Basic laboratory studies of interactions among living organisms and their environment including biogeochemical cycling, trophic structures, sustainability and human impacts on the environment. Pre-requisite/Co-requisite: BIO 120 or BIO 124. Laboratory: 1 credit (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

BIO 122(3) Course ID:000175
Introduction to Conservation Biology
Historical and current perspectives on species extinction and global loss of biological diversity is presented. Methods used to conserve plant and animal life in the United States and around the world are surveyed, and conservation activities and needs are discussed in societal, cultural, economic, and political contexts. Pre-requisite: High school biology recommended. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

BIO 124(3) Principles of Ecology
Study of the principles and interrelationships between organisms and their environment with emphasis on the analytical and statistical methods of ecology. Pre-requisite: College Readiness in Math, Writing and Reading. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

BIO 130(3) Aspects of Human Biology
Aspects of human biology will be introduced from the molecular level to the integrated whole. Attention will be given to the biological bases of various health and wellness issues. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

BIO 135(4) Basic Anatomy and Physiology with Laboratory
Presents the fundamental structure of the human body and the physiological mechanisms involved in normal functioning are presented through lecture and student participation in laboratory activities. Pre-requisite: Minimum ACT Composite score 16 (or KCTCS determined equivalency); OR completion with “C” or better of any college biology or chemistry course; OR ACT of 13-15 with co-requisite OR supplemental instruction; OR consent of instructor. Lecture: 3 credits (45 contact hours), Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science

BIO 137(1) Course ID:000172
Human Anatomy and Physiology I with Laboratory
The interrelationship of structure and function of each body system will be presented in two semesters. The first semester will include basic chemistry, cell structure, cell physiology, metabolism, tissues, and integumentary, skeletal, muscular, and nervous systems. Pre-requisite: College readiness in math, reading, and English; OR successful completion (C or better) of a college biology or chemistry course; OR consent of instructor for enrollment in co-requisite supplemental instruction; OR consent of instructor. Lecture: 3.0 credits (45 contact hours), Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science, Course Also Offered in Modules

BIO 137S(1 - 2) Course ID:017259
Supplemental Instruction for Human Anatomy and Physiology I
Provides supplementary instruction for students who do not meet college readiness standards for BIO 137. Covers concepts necessary for success in BIO 137 as needed. Pre-requisite: Consent of BIO 137 Instructor. Co-requisite: BIO 137. Lecture: 1.0-2.0 credit hours (15-30 contact hours)
Components: Lecture
Attributes: Other

BIO 139(4) Course ID:000174
Human Anatomy and Physiology II with Laboratory
The second semester continues the study of the interrelationships of organ systems, including the circulatory, respiratory, digestive, renal, 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). Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: SN - Science

BIO 141(4) Course ID:000178
Botany with Laboratory
The anatomy, physiology, and biodiversity of plants emphasizing life processes, the cell, development, heredity, plant systems, evolution, taxonomy, phylogeny and ecology. Includes laboratory studies of the morphology, physiology, and reproduction of plants with emphasis on flowering plants. Pre-requisite: BIO 112 or consent of instructor. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science

BIO 142(3) Course ID:000128
Zoology
The anatomy, physiology, and biodiversity of animals emphasizing life processes, the cell, development, heredity, body systems, evolution, taxonomy, phylogeny and ecology. Pre-requisite: BIO 112 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

BIO 143(4) Course ID:000180
Zoology with Laboratory
The anatomy, physiology, and biodiversity of animals emphasizing life processes, the cell, development, heredity, body systems, evolution, taxonomy, phylogeny and ecology. Pre-requisite: BIO 112 or consent of instructor. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: SL - Science Laboratory, SN - Science

BIO 144(3) Course ID:002215
Insect Biology
Presents an overview of the biology of both beneficial and detrimental insects including physiology, behavior, ecology, and evolution. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

BIO 145(1) Course ID:017085
Insect Biology Laboratory
Investigate insect structure and function utilizing basic biological laboratory methodologies including study in taxonomy, phylogeny, behavior and ecology. Pre-requisite or Co-requisite: BIO 144 - Insect Biology. Lab: 1 credit hour (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

241
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 and maintenance of biodiversity including the origins and history of the evolutionary process. Course material is presented within a phylogenetic context emphasizing the shared history of all living organisms on earth through common ancestry. The first semester of an integrated one-year sequence (BIO 148 and BIO 152), Pre-requisites: Math ACT of 23 or above or MA 109, past or current enrollment in CHE 105. (KCTCS equivalents: MA 109=MAT 150; CHE 105=CHE 170). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: University Course (University of Kentucky)

BIO 150(3) Course ID:000135
Principles of Biology I
Presents knowledge of biological principles at the cellular and molecular levels, similarities and differences in structure and function of simple and complex cells and theories on the origin and evolution of biological systems. Part one of a two semester sequence (BIO 150 and BIO 152). Lecture: 3 credits (45 contact hours). Pre-requisite: (CHE 170 or concurrent enrollment) or consent of instructor.
Components: Lecture Attributes: SN - Science

BIO 151(2) Course ID:000136
Principles of Biology Laboratory I
Includes studies of cellular and molecular biology. Laboratory: 2 credits (60 contact hours). Pre-requisite: BIO 150 or Concurrent enrollment.
Components: Laboratory Attributes: SL - Science Laboratory

BIO 152(3) Course ID:000137
Principles of Biology II
Presents knowledge of organismal, population and community biology. Part two of a two semester sequence (BIO 150 and BIO 152). Lecture: 3 credits (45 contact hours). Pre-requisite: BIO 150 or consent of instructor.
Components: Lecture Attributes: SN - Science

BIO 153(2) Course ID:000138
Principles of Biology Laboratory II
Includes organismal, population and community biology. Laboratory: 2 credits (60 contact hours). Pre-requisite: BIO 152 or Concurrent enrollment.
Components: Laboratory Attributes: SL - Science Laboratory

BIO 155(1) Course ID:016428
Introductory Biology Laboratory
This course is designed to provide a broad introduction into the data, results, and information associated with biological research, and into some of the analytical approaches used to test biological hypotheses. Communication of these aspects of biological research is crucial, and much of this lab course will be focused on the development of effective writing skills for the delivery of this information. Pre-requisite: Math ACT of 23 or above or MA 109, past or current enrollment in CHE 105. (KCTCS equivalents: MA 109=MAT 150; CHE 105=CHE 170). Laboratory: 1 credit hour (2 contact hours).
Components: Laboratory Attributes: University Course (University of Kentucky)

BIO 155(3) Course ID:006342
Astrobiology
Examines topics related to the origins of planets, the requirements for life, the search for life away from Earth, the societal implications of discovering other forms of life, and the future of life on Earth and in space from a multidisciplinary perspective. Credit not available for both BIO 155 and AST 155. Pre-requisite: MT 065 and ENC091or equivalent as determined by KCTCS placement examination. Lecture: 3 credits (45 contact hours).
Components: Lecture Course Equivalents: AST 155 Attributes: SN - Science

BIO 209(2) Course ID:000142
Introductory Microbiology Laboratory
Laboratory exercises in general microbiology. Laboratory: 4 hours. Pre-requisite: One unit of chemistry or consent of instructor. BIO 208/228 should be taken concurrently.
Components: Laboratory Attributes: SL - Science Laboratory

BIO 220 Course ID:000139
The Genetic Perspective (3)
Covers introductory genetics for non-science majors examining how heredity affects humans and the remainder of the living world and providing some insights into other fields of science from the geneticist’s perspective. Pre-requisite: BIO 112 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: SN - Science

BIO 225(4) Course ID:000182
Medical Microbiology with Laboratory
The characteristics of microorganisms and their relation to health and disease are studied. Pre-requisite: BIO 137 and BIO 139 or equivalent. Lecture: 2 credits (30 contact hours); Laboratory: 2 credits (60 contact hours).
Components: Laboratory, Lecture Attributes: SL - Science Laboratory, SN - Science, Course Also Offered in Modules

BIO 226(3) Course ID:000140
Principles of Microbiology
Introduction to fundamental microbiological principles and techniques emphasizing structural functional, ecological, and evolutionary relationships among microorganisms. Pre-requisite: BIO 112 or consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: SN - Science

BIO 227(5) Course ID:004989
Principles of Microbiology with Laboratory
Introduces fundamental microbiological principles and techniques emphasizing structural, functional, ecological, and evolutionary relationships among microorganisms. Includes laboratory exercises in general microbiology. Pre-requisite: BIO 114 or BIO 150 or consent of instructor. Lecture: 3 credits (45 contact hours); Laboratory: 2 credit (60 contact hours).
Components: Laboratory, Lecture Attributes: SL - Science Laboratory, SN - Science

BIO 295(1 - 3) Course ID:000195
Independent Investigation in Biology
Investigates specific topics or problems in the field of the biological sciences. May be repeated for a maximum of six credits. Laboratory varies with credit. Pre-requisite: Permission of Instructor. Laboratory: Varies with credit.
Components: Independent Study, Lecture Attributes: Other

BIO 299(1 - 3) Course ID:000197
Instructor Consent Required
Selected Topics in Biology: (Topic)
Addresses recent trends and discoveries in selected areas of biology in a seminar format. Emphasizes discussion and critical thinking. May be repeated with different subtitle for a maximum of six credits. Pre-requisite: Permission of Instructor. Lecture: Varies with credit.
Components: Lecture Attributes: Other

BMT 215(4) Course ID:005966
Principles and Practices of Medical Equipment Management and Maintenance
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: BMI 110. Co-requisite: BMI 230. Lecture/Lab: 4.0 credits (75 contact hours) (30:1 Ratio Lab).
Components: Lecture

BMT 210(4) Course ID:005953
Essentials of Analog and Digital Electronics for BMI: Level 2
Emphasizes advanced analog and digital devices and associated circuits as well as their use within medical equipment. Pre-requisite: BMI 120 . Lecture/Lab: 4.0 credits (75 contact hours) (30:1 Ratio Lab).
Components: Lecture

BMT 210(5.75) Course ID:006124
Classification System, Genetics, and Evolution
Covers basic studies of the classification system, genetics, and evolution. Pre-requisite: BMI 112. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

BMT Biomedical Equipment Technology

BMT 130(4) Course ID:005953
Essentials of Analog and Digital Electronics for BMI: Level 2
Emphasizes advanced analog and digital devices and associated circuits as well as their use within medical equipment. Pre-requisite: BMI 120 . Lecture/Lab: 4.0 credits (75 contact hours) (30:1 Ratio Lab).
Components: Lecture

BMT 210(4) Course ID:005953
Essentials of Analog and Digital Electronics for BMI: Level 2
Emphasizes advanced analog and digital devices and associated circuits as well as their use within medical equipment. Pre-requisite: BMI 120 . Lecture/Lab: 4.0 credits (75 contact hours) (30:1 Ratio Lab).
Components: Lecture

BMT 210(5.75) Course ID:006124
Classification System, Genetics, and Evolution
Covers basic studies of the classification system, genetics, and evolution. Pre-requisite: BMI 112. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

BMT 130(4) Course ID:005953
Essentials of Analog and Digital Electronics for BMI: Level 2
Emphasizes advanced analog and digital devices and associated circuits as well as their use within medical equipment. Pre-requisite: BMI 120 . Lecture/Lab: 4.0 credits (75 contact hours) (30:1 Ratio Lab).
Components: Lecture
BRX Blueprint Reading

BRX 110(2) Course ID:001146
Basic Blueprint Reading for Machinist
Basic applied math, lines, multi-view drawings, symbols, various schematics and diagrams, dimensioning techniques, sectional views, auxiliary views, threads and fasteners, and sketching typical to all shop drawings are presented. Safety will be emphasized as an integral part of the course. Lecture: 2 credit hours (30 contact hours).
Components: Lecture
Attributes: Technical

BRX 112(4) Course ID:001147
Blueprint Reading for Machinist
Provides the student with a beginning and advanced series of lectures, demonstrations, and practice exercises in the study of prints involving math (both decimal and metric), combination of lines, multi-view drawings, assembly drawings, fasteners, machining and construction processes, datum coordinates, numerical control prints, sheet metal prints, welding, casting and forging prints. Safety will be emphasized. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Technical

BRX 120(3) Course ID:001148
Blueprint Reading
Includes basic applied math, lines, multi-view drawings, symbols, various schematics and diagrams, dimensioning techniques, sectional views, auxiliary views, threads and fasteners, and sketching typical to all shop drawings. Emphasizes safety as an integral part of the course. Lecture: 3 credits (45 contact hours).
Components: Lecture
Course Equivalents: ELT 102
Attributes: Course Also Offered in Modules, Technical

BRX 210(2) Course ID:001151
Mechanical Blueprint Reading
Provides the student with an advanced series of lectures, demonstrations, and practice exercises in the study of prints involving math (both decimal and metric), combination of lines, multi-view drawings, assembly drawings, fasteners, machining and construction processes, datum coordinates, numerical control prints, sheet metal prints, welding, casting and forging prints. Safety will be emphasized. Lecture: 2 credits (30 contact hours).
Pre-requisite: BRX 110 with a grade of C or greater or Consent of Instructor.
Components: Lecture
Attributes: Technical

BRX 220(3) Course ID:001150
Blueprint Reading for Construction
Provides a series of lectures, demonstrations, and practice exercises in the study of symbols, views, sections, details, and material lists found on architectural working drawings, building materials and specifications lists, and construction dimensioning systems and charts/schedules. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

BRX 210(1) Course ID:005631
Print Reading Fundamentals
Presents basic applied math, lettering, lines, multi-view drawings, title blocks, material lists and the drawing change system. Lecture: 1 credit (15 contact hours).
Components: Lecture

BRX 120(1) Course ID:005632
Drawing Views and Setup
Presents sketching, auxiliary and sectional views. Pre-requisite: (BRX 120 with a grade of C or better) or consent of instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

BRX 120(1) Course ID:005633
Dimensioning and Tolerances
Presents print dimensioning and tolerances and thread specifications. Pre-requisite: (BRX 120 with a grade of C or better) or consent of instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

BRX 2201(1) Course ID:016150
Basic Construction Prints
Provides a series of lectures, demonstrations, and practice exercises in the study of symbols, views, sections, details, and material lists found on architectural working drawings and construction dimensioning systems and measurements. Lecture: 1.0 credits. (15 contact hours).
Components: Lecture

BRX 2202(2) Course ID:016151
Construction Blueprints
Provides a series of lectures and practice exercises in the study of symbols, views, sections, details, and material lists found on architectural working drawings, building materials and specifications lists, and charts/schedules. Pre-requisite: BRX 2201 or Consent of Instructor. Lecture: 2.0 credits (30 contact hours).
Components: Lecture

BTN Biotechnology Laboratory Tech

BTN 101(1) Course ID:004277
Introduction to Biotechnology
Introduces current and future applications of biotechnology. Covers biotechnology career opportunities and bioethics. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical

BTN 105(3) Course ID:007346
Applied Laboratory Calculations for Biotechnology
Introduces concepts, techniques, and applications of common basic laboratory calculations that are routinely used in the biotechnology laboratory. Emphasizes application of basic computational concepts required of biotechnicians. Requires students to apply strategies to calculate amounts of chemicals required to make solutions, calibrate instruments, collect data, and interpret data. Introduces some computer applications. Pre-requisite: MAT 065 or equivalent as determined by KCTCS examination. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

BTN 106(3) Course ID:007280
Fundamentals of Scientific Communication
Introduces methods and strategies necessary for written, oral, and visual communications as they are used in popular science. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

BTN 110(4) Course ID:004984
Nucleic Acid Methods
Covers theory of DNA structure and function. Emphasizes laboratory skills in a variety of DNA manipulations. Pre-requisite: One semester of college biology with lab or college chemistry with lab or consent of instructor. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

BTN 115(4) Course ID:007347
Biomanufacturing
Surveys basic biomanufacturing principles and procedures designed to assure the quality and safety of a product as the manufacturing team moves the product down the biotechnology production pipeline. Introduces upstream and downstream manufacturing processes through a combination of lecture and laboratory activities. Emphasizes the role of government oversight and regulation during discovery, development, and manufacturing of bioproducts as outlined in the Good Laboratory and Good Manufacturing Practices (GLP and GMP) of the Food and Drug Administration (FDA). Pre-requisite: Completion of BTN 201 and BTN 202 with a grade of C or better, or permission of program coordinator. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

BTN 120(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 125(2) Course ID:007349
Bioinformatics I
Introduces the concepts and tools used in the application of information technology to the field of biology. Includes methods for data collection, storing and accessing biological data, fundamentals of sequence alignment, biological molecule structure prediction, and data mining and analysis. Pre-requisite or Co-requisite: Completion of, or concurrent enrollment in BTN 201 and BTN 202. Lab: 2.0 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

BTN 126(2) Course ID:007350
Bioinformatics II
Applies concepts introduced in BTN 125 in the design and implementation of basic programming relating to bioinformatics problems. Emphasizes current trends in bioinformatics programming language, databases, and technology. Pre-requisite: Completion of BTN 125 with a grade of C or better or permission of program coordinator. Lab: 2.0 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

BTN 160(4) Course ID:007351
Introduction to Agricultural Biotechnology
Introduces theory and methods relating to applications of biotechnology in agriculture. Emphasizes emerging laboratory technologies in the area of agricultural biotechnology including food and natural resource management. Explores plant and animal genetic engineering. Pre-requisite: BTN 201 and BTN 202 with a grade of C or better, or permission of the program coordinator. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

BTN 201(4) Course ID:005620
Biotechnology Techniques I
Introduces theory and techniques for media and solution preparations, use of analytical equipment, and laboratory safety. Includes various nucleic acid techniques, gene expression and purification, and bioinformatics. Pre-requisite: A semester of college biology with lab or college chemistry with lab or consent of instructor. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

BTN 202(4) Course ID:005621
Biotechnology Techniques II
Covers various protein techniques, extraction and purification, and assays. Pre-requisite: BTN 201. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

BTN 210(4) Course ID:004985
Cell Culture and Function
Covers use of cell culture in modern biotechnological applications with emphasis on laboratory skills in a variety of cell culture techniques. Pre-requisite: (BTN 110 with a grade of C or better) or consent of instructor. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

BTN 220(4) Course ID:004986
Immunological Methods
Covers immunological theory and applications with focus on techniques such as isolation, purification, and labeling of antibody molecules. Pre-requisite: (BTN 110 with a grade of C or better) or consent of instructor. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
BTN 225(4)  Course ID:007352  
Protein Bioseparation Methods  
Introduces the strategies to purify proteins as part of a biotechnology process. Introduces specific methods such as activity assays for enzymes, extraction of proteins from bacterial cells, salting out, dialysis, ion exchange chromatography, and polyacrylamide gel electrophoresis. Pre-requisite: Completion of BTN 201 and BTN 202 with a grade of C or better, or permission of the program coordinator. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).  
Components: Laboratory, Lecture  
Attributes: Technical  
BTN 295(1 - 3)  Course ID:007353  
Independent Investigation in Biotechnology  
Investigates specific topics or problems in the field of the biotechnology under direction of the faculty. May be repeated for a maximum of six credits. Laboratory varies with credit. Pre-requisite: Permission of instructor. Lab: 1.0 - 3.0 credits (30-90 contact hours).  
Components: Laboratory  
Attributes: Technical  
BTN 298(1 - 8)  Course ID:007354  
Biotechnology Learning Laboratory  
Provides contextual, real-world experience and an opportunity to reinforce previously learned concepts, skills, and critical thinking ability related to business and technical job functions typical of biotechnology companies. Prepares students to conduct mentored activities on various workforce projects assigned by Biotechnology faculty/ staff or in collaboration with biotechnology companies at the Learning Laboratory. Emphasizes twenty-first century skills and workforce readiness. May be repeated for a maximum of 8 credits. Pre-requisite or Co-requisite: Completion of BTN 201 and BTN 202 with a C or better, or permission of program coordinator. Practicum: 1.0 - 8.0 credits (60-480 contact hours).  
Components: Practicum  
Attributes: Technical  
BTN 299(1 - 3)  Course ID:007355  
Selected Topics in Biotechnology  
Addresses recent trends and discoveries in selected areas of biotechnology in a seminar format. Emphasizes discussion and critical thinking. May be repeated for a maximum of 12 credits if topics and/or learning outcomes vary. Pre-requisite: Permission of instructor. Lecture: 1.0 - 3.0 credits (15-45 contact hours).  
Components: Lecture  
Attributes: Technical  
BTS 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  
Prepares BTS professionals for protection from potential hazards they may encounter. Prepares BTS professionals for safety 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 basic analog and digital semiconductor devices and their applications within medical products. Addresses how to read electronic schematics and apply basic troubleshooting skills to circuits that utilize both discrete components and integrated circuits. Focuses on such devices as diodes, transistors, thyristors, logic gates and flip-flops, and digital timing devices. Pre-requisite: AIT 110 with a grade of C or better. Lecture/Lab: 2.0 credits (37.5 contact hours).  
Components: Lecture  
Attributes: Technical  
BTS 125(2)  Course ID:007227  
Essentials of Biomedical Electronics II  
Continues the presentation of analog and digital semiconductor devices by introducing more complex devices and their applications within medical products than those introduced in BTS 120. Addresses how to read electronic schematics and apply basic troubleshooting skills to circuits that utilize integrated-packaged devices and the systems that comprise them. Focuses on such devices as operational amplifiers, combinational and sequential logic devices, microprocessors, microcontrollers, and programmable logic devices. Emphasis is also given to communication circuits used in medical products. Pre-requisite: BTS 120 with a grade of C or better. Lecture: 2.0 credits (37.5 contact hours).  
Components: Lecture  
Attributes: Technical  
BTS 130(3)  Course ID:007228  
Medical Equipment Management I  
Focuses on medical technology management, principles and practices with regard to medical equipment assessment, planning, acquisition, acceptance, and replacement and disposal. Pre-requisite: BTS 100, BTS 110 and AIT 1101 with a grade of C or better. Lecture/Lab: 2.0 credits (37.5 contact hours).  
Components: Lecture  
Attributes: Technical  
BTS 140(1)  Course ID:007229  
Science Principles Employed in Medical Technologies  
Practicum: 1.0 - 3.0 credits (30-45 contact hours).  
Components: Practicum  
Attributes: Technical  
BTS 200(2)  Course ID:007230  
Patient Care Support and Management Systems  
Prepares students employed throughout healthcare in support of patient care and patient management efforts with regard to their application, operation, and routine evaluation. Emphasizes systems that influence patient care in an indirect manner rather than directly providing patient care. Emphasizes patient care. 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  
Prepares students employed throughout healthcare in support of patient care and patient management efforts with regard to their application, operation, and routine evaluation. Emphasizes systems that influence patient care in an indirect manner rather than directly providing patient care. Emphasizes patient care. 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 275(2) Course ID:007237
Therapeutic Equipment Modalities II
Presents therapeutic medical equipment typically utilized outside the perioperative and intensive care settings primarily towards physical therapy and treatment interventions. Focuses on clinical applications, circuit design and circuit operation, operator controls and equipment setup, managing device alarms, addressing maintenance requirements, and meeting performance and safety standards. Emphasizes a variety of medical technologies including therapeutic ultrasound units, electrical stimulation units, dialysis machines, oxygen concentrators, and hyperbaric chambers. Pre-requisite: BTS 270 and BTS 230 (each with a grade of C or better). Lecture: 2.0 credits (37.5 contact hours).
Components: Lecture Attributes: Technical

BTS 280(2) Course ID:007238
General Care Monitoring and Instrumentation
Presents various physiological parameters measured in low and mid-acuity situations typically encountered in general care settings along with the instrumentation used to obtain such information. Focuses on how the technology works and how to evaluate its performance and safety. Emphasis is given to a variety of medical technologies including scales, thermometers, general electrocardiograph monitors, non-invasive blood pressure monitors, pulse oximeters, and spirometers. Pre-requisite: BIO 135, BTS 125, and BTS 140 (each with a grade of C or better). Pre-requisite Or Co-requisite: BTS 230. Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture Attributes: Technical

BTS 285(2) Course ID:007239
Critical Care Monitoring and Instrumentation
Continues the presentation of various physiological parameters measured in high and high-acuity situations typically encountered in intensive/critical care settings along with the instrumentation used to obtain such information. Focuses on how the technology works and how to evaluate its performance and safety. Emphasizes a variety of medical technologies including advanced electrocardiograph monitors, invasive pressure monitors, cardiac output monitors, anesthetic gas monitors, and fetal monitors. Pre-requisite: BTS 280 and BTS 230 (both with a grade of C or better). Pre-requisite or Co-requisite: BTS 250. Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture Attributes: Technical

BTS 290(2) Course ID:007240
Clinical Experience in Biomedical Technology Systems
Provides an opportunity for the student to apply their knowledge and skill regarding various biomedical technology systems and equipment within a real-world environment. Requires the student to complete 120 contact hours of experiential training under the guidance of an assigned clinical supervisor. Pre-requisite: BTS 201, BTS 220, and BTS 230 (each with a grade of C or better). Pre-requisite or Co-requisite: BTS 250, BTS 260, BTS 275, and BTS 285. Clinical: 2.0 credits (120 contact hours).
Components: Clinical Attributes: Technical

CAD Computer-Aided Design

CAD 100(3) Course ID:000216
Introduction to Computer Aided Design
Applies fundamental principles and capabilities of CAD, basic drafting conventions, and operations. Provides an in-depth study of drafting and design, drafting commands, terminology, and output devices. Emphasizes the development, drawing, and interpretation of computer-aided design drawings. Lecture: 1.0 credit (15 contact hours). Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture Attributes: Digital Literacy, Course Also Offered in Modules, Technical

CAD 102(4) Course ID:004052
Drafting Fundamentals
Explores the fundamentals of drafting in the use of equipment through measurement of lines, angles, circles, arcs, and irregular curves; alphabet of lines; freehand sketching; geometric constructions; orthographic projection characteristics of lines and planes; lettering; and dimensioning techniques. Lecture/Lab: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 108(3) Course ID:005186
Introduction to Surveying
Introduces the elements of surveying including measurements, distance corrections, leveling, angles, area computation, computer calculations, topographic surveying, electronic distance measuring instruments, construction surveying, GPS, and GIS. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CAD 112(4) Course ID:004054
Engineering Graphics
Explores lines and planes as they relate to orthographic projection to show the size and shape of objects, as well as for descriptive geometry in solving advanced problems. Includes application of geometric principles and projection elements of sectioning; techniques involved in oblique projections, axonometric projections, and perspective drawings; and dimensioning techniques and symbol usage common to all drafting disciplines. Pre-requisite: CAD 102 with a grade of C or better or Approval of Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 120(4) Course ID:004067
Introduction to Architecture
Introduces a practical approach to architectural drafting using board and/or computer aided drafting methods as it relates to residential and commercial architecture, specifications, and structural systems including wood, masonry, concrete, and steel. Pre-requisite: CAD 100 OR CAD 103 with a grade of C or better or approval of the Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 130(4) Course ID:004057
Descriptive Geometry
Examines the spatial relationships between points, lines, and planes in various orthographic projections with graphical solutions; explores the processes to solve problems using auxiliary view projection methods, revolutions, intersections, and developments. Pre-requisite: CAD 112 with a grade of C or better or approval of Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 150(4) Course ID:000217
Programming in CAD
Introduces fundamental principles of the computer language(s) that represents and interfaces with the main CAD software. Includes writing subroutines and programs to perform CAD functions not available in the main CAD software. 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 Instrucor. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture Attributes: Technical

CAD 200(4) Course ID:000218
Intermediate Computer Aided Drafting
Produce advanced two- and three-dimensional objects 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 creation of parametric models and explores associative function and flexibility of concurrent part design. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 210(4) Course ID:004059
Industrial Drafting Processes
Explores weldment design, welding symbols, welding processes, and fabrication techniques, tool and die, and jig and fixture drawings. Includes design specifications, pattern drawings, casting, forming processes, and mechanical drafting principles in relation to the manufacturing industry. Covers screw-thread design and related fastening concepts as they relate to manufactured items and construction. Pre-requisite: CAD 100 OR CAD 103 with a grade of C or better or approval of the Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 215(4) Course ID:016429
Building Information Modeling
Introduces Building Information Modeling (BIM), an intelligent model-based process that provides insight to help plan, design, construct, manage buildings and infrastructure through three dimensional models, and generate construction drawing sheet sets. Creates structures for analytical purposes such as visualization, quality take off, cost estimating, scheduling, coordination and facility management across various fields, including architectural, structural and mechanical, electrical, and plumbing. Using BIM technology enables discovery of potential conflicts between these fields. Lecture/Lab: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 220(4) Course ID:004066
Architectural Design
Applies the theory of architectural design and presentation techniques. Deals with site selection, use of materials in design, spatial relationships, and aesthetics. Explores traditional and contemporary design, designers, processes, and historical milestones. Uses board and computer techniques to illustrate interiors and exteriors of student designs. Pre-requisite: CAD 120 with a grade of C or better or approval of Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 222(4) Course ID:004061
Mechanical Design
Explores the design principles, mechanical adaptation, and drafting practices involved in the development of mechanical working drawings and the design principles in various manufacturing disciplines; gear drawing and design, and cam and follower drawing and design; mechanical assemblies, machine design, power transmission, bearings, and seals in assemblies. Involves shop processes in these mechanical designs. Pre-requisite: CAD 100 with a grade of C or better or approval of Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

CAD 230(4) Course ID:003996
Construction Techniques
Covers the elements for constructing standard residential and commercial structures; essentials of standard construction details, which illustrate the various construction methods involved in wood frame, solid masonry, masonry veneer, concrete, and steel construction. Includes the development of a portfolio for these techniques. Pre-requisite: CAD 120 with a grade of C or better or approval of Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture Attributes: Technical
CAD 240(4)  Course ID:004008
Advanced Dimensioning and Measurement
Presents an in-depth study of advanced industrial dimensioning principles, tolerances, fits, and A.N.S.I. standards. Explores shape and geometric characteristics of parts through geometric dimensioning and tolerancing through drawing application and study. Pre-requisite: CAD 100 with a grade of C or better or approval of the Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

CAD 252(4)  Course ID:004070
Commercial Detailing
Explores commercial drafting building codes, building structure, materials, and structural drawing and detailing. Emphasizes calculations to determine appropriate structural members. Pre-requisite: CAD 120 with a grade of C or better or approval of the Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

CAD 262(4)  Course ID:005185
Working Drawings
Prepare a set of working drawings to be used in a portfolio that shows mastery of the architectural drawing processes and knowledge of building construction techniques. Pre-requisite: CAD 120 with a grade of C or better or approval of the Instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

CAD 291(2)  Course ID:004063
Special Problems
Allows the student to gain intermediate experience in their perspective fields through projects and tasks assigned by the instructor based on applications the student may one day experience as a professional. Sets the foundation for more in-depth projects that will be included in the student’s future portfolio. Focuses on various assignments and curriculum determined by the program instructor. Pre-requisite: Permission of the Instructor. Lab: 2.0 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

CAD 292(4)  Course ID:005188
Department Consent Required Industrial Applications
Emphasizes the development of a portfolio of mechanical drawings specific to the occupational opportunities in specific geographical locations. Focuses on various assignments and curriculum as determined by the program instructor. Pre-requisite: Approval of instructor. Lecture: 4.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

CAD 293(1 - 4)  Course ID:004064
Department Consent Required Special Problems
Allows the student to gain intermediate experience in their perspective fields through projects and tasks assigned by the instructor and based on applications the student may one day experience as a professional. Sets the foundation for more in-depth projects that will be included in the student’s future portfolio. Focuses on various assignments and curriculum as determined by the program instructor. Pre-requisite: Approval of Program Coordinator. Lab: 1.0 - 4.0 credits (30-120 contact hours).
Components: Laboratory
Attributes: Technical

CAD 298(1 - 3)  Course ID:004065
Practicum
Provides supervised work experiences related to the student’s educational objectives. Students participating in the Practicum do not receive compensation. Pre-requisite: Approval of Program Coordinator. Practicum: 1.0-3.0 credits (45-135 contact hours).
Components: Practicum
Attributes: Technical

CAD 299(1 - 3)  Course ID:004066
Department Consent Required Cooperative Education
Provides supervised on-the-job work experience related to the student’s educational objectives. Students participating in the Co-op Education program receive compensation for their work. Pre-requisite: Approval of Program Coordinator. Co-op: 1.0-3.0 credits (45-135 contact hours).
Components: Co-Op
Attributes: Technical

CAR 126(3)  Course ID:001152
Intro to Construction
Provides a discussion of the different employment opportunities of carpentry-related careers within the construction industry including different construction systems and methods as well as basic management of a construction project. Emphasizes the different building materials and the correct use of hand and power tools. Includes shop and job-site safety. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CAR 127(1)  Course ID:001153
Intro to Construction - Lab
Permits students to research different employment opportunities of carpentry-related careers. Introduces the student to different construction systems and methods as well as practice basic management methods of a construction project. Permits student to become familiar with common building materials and the correct use of hand and power tools. Includes shop and job-site safety standards. Co-requisite: CAR 126. Laboratory: 1 credit (30 contact hours).
Components: Laboratory
Attributes: Technical

CAR 140(3)  Course ID:001154
Surveying & Foundations
Enables the student to become familiar with construction surveying methods, site layout procedures and materials used in the construction of foundation systems as well as discussion on the use of the builders level, transit and laser levels. Covers the characteristics of concrete, excavation procedures, forming methods and material estimating. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CAR 141(2)  Course ID:001155
Surveying & Foundations-Lab
Familiarizes the student with construction surveying methods, site layout procedures and materials used in the construction of foundation systems as well as the application of the builders level, transit and laser levels. Covers the application of concrete procedures, excavation procedures, forming methods and material estimating. Co-requisite: CAR 140. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

CAR 150(3)  Course ID:001156
Concrete Formwork
Introduces the carpentry student to heavy and commercial concrete form construction methods. Covers information about properties of concrete as a building material, rigging, concrete wall form systems, above grade floor systems, vertical piers and column form systems, on grade curb forms, horizontal beam forms, fire proofing 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 Construction I
Emphasizes methods of floor, wall and stair framing, layout and construction. Provides discussion of industry safety standards and building codes. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CAR 191(2)  Course ID:001159
Light Frame Const. I-Lab
Permits the student to practice floor, wall, and stair framing layout and construction techniques including the implementation of building codes and industry safety standards during lab or job-site practice. Co-requisite: CAR 190. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

CAR 196(3)  Course ID:001160
Light Frame Construction II
Covers basic roof design and roof construction methods 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 laying out, cut and install ceiling joists, rafters, and roof decking materials. Includes layout and installation practices for roof truss systems, job-site safety practice, scaffold and ladder safety that deals with roof construction and building code requirements for roof construction and material estimating. Lecture: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

CAR 198(1 - 6)  Course ID:005344
Instructor Consent Required
Special Topics in Carpentry
Includes various Construction Carpentry Technology topics, issues and trends. Topics may vary semester to semester at the discretion of the instructor; course may be repeated with different topics to a maximum of six credit hours. Pre-requisite: Consent of Instructor. Lecture: 1-6 credits (15-90 contact hours), Laboratory: 1-6 credits (30-180 contact hours).
Components: Lecture
Attributes: Technical

CAR 199(2 - 4)  Course ID:016145
Co-op in Construction I
Refines the techniques and skills taught in the previous carpentry courses. Provides a supervised on-the-job experience related to the student’s educational and career training objectives. Pre-requisite: ISX 100 and/ or permission of instructor. Co-op: 2-4.0 credits (150-300 contact hours).
Components: Co-Op
Attributes: Technical

CAR 208(3)  Course ID:001162
Light Frame Construction III
Presents the concepts of interior and exterior finish materials and methods of installation. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
CAR 201(2)  Course ID: 001163
Light Frame Const. III-Lab
Provides an opportunity for students to perform basic applications of the concepts of interior and exterior finish methods for light frame construction. Co-requisite: CAR 200. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Course Also Offered in Modules, Technical
CAR 240(3)  Course ID: 001165
Light Frame Construction IV
Covers the concepts that support the planning, construction and installation methods for kitchen and bath cabinetry and countertops. Provides discussion of special finish trim techniques including finish stair construction and specialty millwork. Co-requisite: CAR 240. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Technical
CAR 241(2)  Course ID: 001167
Light Frame Const. IV-Lab
Allows the student to practice the concepts that support the planning, construction and installation methods for kitchen and bath cabinetry and countertops including special finish trim techniques of finish stair construction and specialty millwork. Co-requisite: CAR 240. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Technical
CAR 270(3)  Course ID: 007299
Green Building
Integrates principles of green building technologies and methods of sustainable construction. Emphasizes green materials utilized 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: 0016830
Dental Health Communication Skills
Provides an overview of oral health communication, oral health literacy, and patient assessment interviewing skills for the Community Dental Health Coordinator. Emphasizes impact of oral health literacy on one’s health. Includes communication strategies, verbal and nonverbal communication skills. Covers motivational interviewing, human behaviors, and health concepts emphasizing oral health. Incorporates patient assessment, feedback, education, and behavior change interventions for dental patients. Pre-requisite: Must be a registered Dental Hygienist (RDH). Lecture: 3.0 credits (45 contact hours)
Components: Lecture
Attributes: Technical
CDH 115(3)  Course ID: 0016831
Dental Health Coordination, Documentation, Reporting, and Finance
Provides an overview of coordination, documentation and reporting approaches for working with families as well as individuals. Includes family assessment, case documentation and overview of the services system. Covers health care finance, the referral process and components of case management. Pre-requisite: Must be a registered Dental Hygienist (RDH). Lecture: 3.0 credits (45 contact hours)
Components: Lecture
Attributes: Technical
CDH 125(2)  Course ID: 0016832
Dental Health Teaching and Learning Skills
Provides an overview of teaching and learning skills as they apply to the Dental Health field. Includes teaching and learning techniques, goal setting, critical thinking, and interviewing skills for the dental health advocate. Covers internet usage and security as well as an introduction to concepts of lifelong learning. Pre-requisite: Must be a registered Dental Hygienist (RDH). Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical
CDH 220(3)  Course ID: 0016833
Dental Health Advocacy and Outreach
Overview of Community Health Worker and the Community Dental Health Coordinator responsibilities. Includes advocacy concepts, process of advocacy in the community, and assisting underserved local populations in health and social services. Development of a personal health and wellness plan covered. Community outreach topics and strategies emphasized. General concepts of writing grant proposals covered. Pre-requisite: Must be a registered Dental Hygienist (RDH). Lecture: 3.0 credits (45 contact hours)
Components: Lecture
Attributes: Technical
CHE 120(3) Course ID:000237
Chemistry in Society
Introduces non-science majors to the main concepts and applications of chemistry in our society. Pre-requisite: Completion of one developmental math course above Pre-Algebra with a grade of "C" or better OR (College level math ACT score) OR equivalent. Lecture: 3.0 credits (45 contact hours).
Attributes: Laboratory, Lecture

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).
Attributes: Laboratory

CHE 130(3) Course ID:017266
Introductory General and Biological 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 (60 contact hours).
Attributes: Lecture

CHE 135(1) Course ID:017260
Introductory General and Biological Chemistry Laboratory
Reinforces concepts covered in CHE 130 and introduces basic laboratory techniques, methods, and instrumentation through selected experiments pertaining to chemical and physical properties, quantitative analysis, qualitative analysis, and the reactions of organic and biomolecules. Pre-requisite or Co-requisite: CHE 130 concurrent enrollment OR CHE 130 with a grade of "C" or better. Laboratory: 1 credit hour (30 contact hours).
Attributes: Laboratory

CHE 140(3) Course ID:000224
Introductory General Chemistry
Introduces topics in general chemistry, including properties of matter, stoichiometry, gases, atomic structure, bonding, acids and bases, oxidation and reduction, and nuclear chemistry. Intended for students interested in a one-semester course in general chemistry and recommended for students seeking careers in allied health fields. Pre-requisite: Mathematics assessment exam scores with placement in College Algebra or higher OR successful completion of the remedial 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).
Attributes: Lecture

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).
Attributes: Laboratory

CHE 150(3) Course ID:000226
Introduction to Organic and Biological Chemistry
Continues the sequence begun in CHE 140. Introduces topics in organic chemistry and biochemistry. Introduces organic functional groups, their reactions, and the chemistry of proteins, nucleic acids, carbohydrates, and lipids. Pre-requisite: CHE 140 with a grade of C or better. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

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 (60 contact hours).
Components: Lecture

CHE 170(4) Course ID:000225
General College Chemistry I
Focuses on major chemical topics, including stoichiometry, atomic structure, properties of matter and the relationship between molecular structure and chemical behavior. Emphasizes solving of mathematical problems which illustrate the principles of chemistry. Designed for students majoring 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 majoring in the sciences, engineering, and pre-professional programs. Pre-requisite: CHE 170 with a grade of "C" or better) and (College Algebra or higher with "C" or better). Lecture: 4.0 credits (60 contact hours).
Components: Lecture
Attributes: SN - Science

CHE 185(1) Course ID:000241
General College Chemistry Laboratory II
Reinforces concepts covered in CHE 180 and introduces basic laboratory techniques, methods, and instrumentation through selected experiments. Emphasizes both quantitative and qualitative techniques. Pre-requisite: CHE 175 with a grade of C or better. Pre-requisite or Co-requisite: CHE 180. Laboratory: 1 credit (45 contact hours, 45:1 ratio).
Components: Laboratory
Attributes: SL - Science Laboratory, SN - Science

CHE 260(3) Course ID:000232
Organic Chemistry II
Prepares students for success in CHE 185 and introduces basic laboratory techniques, methods, and instrumentation through selected experiments dealing with the purification, characterization, and reactions of organic compounds. Pre-requisite: CHE 185 with a grade of C or better. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SL - Science Laboratory

CHE 280(2) Course ID:000233
Organic Chemistry Laboratory II
Introduces techniques used in the laboratory for purification, separation, identification, and reactions of organic compounds. Pre-requisite: CHE 270 with a grade of C or better. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

CHE 285(2) Course ID:000234
Organic Chemistry Laboratory II
Introduces techniques used in the laboratory for purification, separation, identification, and reactions of organic compounds. Pre-requisite: CHE 270 with a grade of C or better. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

CHE 299(1 - 3) Course ID:006175
Instructor Consent Required
Selected Topics in Chemistry: (Topic)
Prepares a topic in chemistry chosen by the instructor. Topics may vary from semester to semester at the discretion of the instructor; course may be repeated with different topics to a maximum of six credit hours. Pre-requisite: Consent of instructor. Lecture: 1-3 credits (15-45 contact hours).
Components: Lecture

CHE 295(1 - 3) Course ID:006176
Instructor Consent Required
Selected Topics in Chemistry Laboratory: (Topic)
Explores experiments pertinent to a topic in chemistry chosen by the instructor. Topics may vary from semester to semester at the discretion of the instructor; course may be repeated with different topics to a maximum of six credit hours. Pre-requisite: Consent of instructor. Laboratory: 1-3 credits (30-90 contact hours).
Components: Laboratory

CHE 299(1 - 3) Course ID:006177
Instructor Consent Required
Selected Topics in Chemistry Research: (Topic)
Offers the student the opportunity to perform laboratory research on a problem chosen by the instructor. Course may be repeated with different topics to a maximum of six credit hours. Pre-requisite: Consent of instructor. Laboratory: 1-3 credits (30-90 contact hours).
Components: Laboratory

CHE 1201(0.75) Course ID:006126
Fundamentals
Introduces non-science majors to the fundamentals and applications of chemistry in our society. Pre-requisite: (Completion of one developmental math course above Pre-Algebra with a grade of "C" or better) OR (College level math ACT score) OR equivalent. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture
CHW 101(1) Course ID:017382
Communication for Health Worker
Teaches effective and purposeful communication by listening carefully and communicating respectfully in ways that help build trust and rapport with clients, community members, colleagues and other professionals. Considers effective communication to include a mix of listening, speaking, gathering and sharing information, and resolving conflict. Explains the Community Healthcare Workers roles, responsibilities, and limits with regards to protecting client privacy and confidentiality. Lecture 1 credit (15 contact hours).
Components: Lecture Attributes: Technical

CHW 102(1) Course ID:017383
Organizational and Community Outreach
Explores the use of a variety of outreach methods, such as phone calls, in-person conversations, group presentations, distribution of print and electronic information, and social media, and effectively written reports that will be sent to supervisors and patients as needed. Provides knowledge on effective outreach based on learning about community needs and strengths, knowledge about available resources, and sensitivity to personal and cultural dynamics that affect behavior and relationships. Lecture: 1 credit (15 contact hours).
Components: Lecture Attributes: Technical

CHW 103(1) Course ID:017384
Advocacy
Teaches advocacy and capacity building that can help create conditions and build relationships that lead to better health. Explores capacity building requirements such as planning, cooperation, and commitment. Examines working to change public awareness, organizational rules, institutional practices, or public policy. Lecture: 1 credit (15 contact hours).
Components: Lecture Attributes: Technical

CHW 104(1) Course ID:017385
Health Coaching
Teaches education for healthy behavior change including providing people with information, tools, and encouragement to help them improve their health and stay healthy over time. Explores working with clients, family or community members, and with providers to address issues that may limit opportunities for healthy behavior. Examines the Community Healthcare Workers role as educator and coach, using a variety of techniques to motivate and support behavior change to improve health. Lab: 1 credit hour (30 contact hours).
Components: Laboratory

CHW 105(1) Course ID:017386
Organization for Community Health Worker
Teaches how to promote coordinated and effective services by documenting their work activities, including writing summaries of client and community assessments. Examines presenting information to agency colleagues or community partners about their clients and issues they face. Explores the use of computer technology and communication in English. Discusses alternative language arrangements utilizing valuable linguistic capacities, cultural experience, and community relationships. Lecture: 1 credit (15 contact hours).
Components: Lecture Attributes: Technical

CHW 106(1) Course ID:017387
Legal and Ethics for Community Health Worker
Teaches how to handle ethical challenges as Community Healthcare Workers address legal and social challenges facing the clients and the communities they serve. Discusses client confidentiality and privacy rights in the context of employer and legal reporting requirements. Explores balancing care for clients with care for self. Examines following agency rules and the regulations governing public and private resources while exercising creativity in helping community members meet their individual and family needs. Lecture: 1 credit (15 contact hours).
Components: Lecture

CHE 1202(0.75) Course ID:006127
Intro to Organic & Biochemistry
Introduces non-science majors to the fundamentals and applications of organic and biochemistry in society. Pre-requisite: CHE 1201. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

CHE 1203(0.75) Course ID:006128
Selected Topics in Chemistry and Culture
Introduces non-science majors to selected topics in chemistry and culture. Pre-requisite: CHE 1201 or 1202. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

CHE 1204(0.75) Course ID:006129
Special Topics: Fields of Chemistry
Introduces non-science majors to different fields in chemistry through applied special topics. Pre-requisites: CHE 1201, 1202, or 1203. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

CHE 1202(0.75) Course ID:006130
Intro to Organic & Biochemistry
Introduces non-science majors to the fundamentals and applications of organic and biochemistry in society. Pre-requisite: CHE 1201. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

CHE 1203(0.75) Course ID:006131
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:006132
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

CHEM 1201, 1202, or 1203. Lecture: 0.75 credit (11.25 contact hours).

CHEM 1202(0.75) Course ID:006133
Intro to Organic & Biochemistry
Introduces non-science majors to the fundamentals and applications of organic and biochemistry in society. Pre-requisite: CHE 1201. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

CHEM 1203(0.75) Course ID:006134
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

CHEM 1204(0.75) Course ID:006135
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

CIT 101(1) Course ID:004712
Computer Information Tech
Provides basic theories and concepts of geographical information systems including basic GIS capabilities, data analysis, data types, coordinate systems, cartography and mapping concepts. Introduces GIS software using industry-specific applications and technology to provide a conceptual base to build expertise in GIS. Pre-requisite: CIT 105 OR IMD 100 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CIT 102(1) Course ID:004713
Productivity Software
Utilizes current word processing, spreadsheet, database, and presentation application software to solve common business problems. Covers basics features of each software application. Pre-requisite: CIT 105 OR OST 105 OR IMD 100 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CIT 103(1) 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 104(1) Course ID:004715
JavaScript II
Provides an introduction to the computer and the convergence of technology as used in today's global environment. Introduces topics including computer hardware and software, file management, the Internet, e-mail, the social web, green computing, security and computer ethics. Presents basic use of application, programming, systems, and utility software. Basic keyboarding skills are strongly recommended. Pre-requisite: RDG 20 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Digital Literacy, Course Also Offered in Modules

CIT 105(1) Course ID:004710
Introduction to Computers
Provides an introduction to the computer and the convergence of technology as used in today's global environment. Introduces topics including computer hardware and software, file management, the Internet, e-mail, the social web, green computing, security and computer ethics. Presents basic use of application, programming, systems, and utility software. Basic keyboarding skills are strongly recommended. Pre-requisite: RDG 20 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Digital Literacy, Course Also Offered in Modules

CIT 111(4) Course ID:006189
Computer Hardware and Software
Presents a practical view of computer hardware and client operating systems. Covers computer hardware components, troubleshooting, repair, and maintenance; operating system interfaces and management tools; networking components; computer security; and operational procedures. Pre-requisite: CIT 105 AND MAT 055 OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules, Technical

CIT 120(3) Course ID:004712
Computational Thinking
Promotes understanding of computer programming and logic by teaching students to think like a computer. Covers skills needed to develop and design language-independent solutions to solve computer-related problems. Covers development and design basics including use of variables, control and data structures, and principles of command-line and object-oriented languages. Pre-requisite or Co-requisite: MAT 085 or ( MAT 128 or higher) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules, Technical

CIT 124(3) Course ID:016259
Introduction to Game Development
Presents an overview of the game development process including game development history, platforms, goals, genres, players, story and character development, gameplay, levels, interfaces, audio, development processes, development team roles, marketing, and maintenance. Offers students the opportunity to play and analyze games facilitating discussion on game design and function. Completion of partial game design will occur. Pre-requisite: CIT105 OR IMD100 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Course Equivalents: IMD 124 Attributes: Technical

CIT 125(3) Course ID:006901
Intro to Digital Maps
Provides basic theories and concepts of geographical information systems including basic GIS capabilities, data analysis, data types, coordinate systems, cartography and mapping concepts. Introduces GIS software using industry-specific applications and technology to provide a conceptual base to build expertise in GIS. Pre-requisite: CIT 105 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CIT 130(3) Course ID:004713
Productivity Software
Utilizes current word processing, spreadsheet, database, and presentation application software to solve common business problems. Covers basics features of each software application. Pre-requisite: CIT 105 OR OST 105 OR IMD 100 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: 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:005902 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: 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, object-oriented programming, graphical user interfaces, and modular programming. Pre-requisite: CIT 120 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CIT 145(3) Course ID: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

CIT 146(3) Course ID:017009 Swift I
Introduces students to fundamental programming concepts using the Swift programming language. Includes data types, data structures, error-handling, event driven programming, and using Xcode. Pre-requisite: CIT 120 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CIT 147(3) Course ID:006903 Programming I: Language
Introduces students to fundamental programming concepts using an industry-specific or emerging programming language. Includes data types, control structures, simple data structures, error-handling, modular programming, information and file processing, and uniqueness of the language used in the course. Pre-requisite: CIT 120 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

CIT 148(3) Course ID:004716 Visual Basic I
Introduces students to fundamental programming concepts using the Visual Basic programming language. Includes data types, control structures, simple data structures, error-handling, modular programming, event-driven programming, graphical user interfaces, and file processing. Pre-requisite: CIT 120 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

CIT 149(3) Course ID:004717 Java I
Introduces students to fundamental programming concepts using the Java programming language. Includes data types, control structures, simple data structures, error-handling, object-oriented programming, graphical user interfaces, and modular programming. Pre-requisite: CIT 120 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CIT 150(3) Course ID:004718 Internet Technologies
Provides students with a study of traditional and emerging Internet technologies. Covers topics including Internet fundamentals, Internet applications, Internet delivery systems, and Internet client/server computing. Provides a hands-on experience and some rudimentary programming in an Internet environment. Pre-requisite: CIT 105 OR Consent of Instructor. Pre-requisite Or Co-requisite: CIT 120. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

CIT 152(3) Course ID:007391 Social Media Tools and Technologies
Introduces students to web-based social media tools. Explores and researches online applications, social networks, and web branding. Develops skills to leverage social media applications and niche markets to increase business presence. Pre-requisite: CIT 150 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Laboratory Attributes: Technical

CIT 155(3) Course ID:006904 Web Page Development
Introduces web page design through the use of HTML and CSS. Users text and/or web editors to create web documents with various formats and page layouts, multimedia, tables and forms. Emphasizes W3C web design and accessibility standards. Pre-requisite: CIT 106 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

CIT 157(3) Course ID:006905 Web Site Design and Production
Introduces web site production processes with particular emphasis on design involving layout, navigation, interactivity, and using web production software. Pre-requisite: CIT 105 OR Consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture

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 55 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 protocols of the Internet and other computer networks. Introduces the principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations. Helps students to be able to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes. Pre-requisite: MT 055 OR Consent of Instructor.
Pre-requisite or Co-requisite: CIT 111 OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours).
Components: Lecture

CIT 167(1) Course ID:017007 Intro to Routing
Introduces the architecture, components, and operations of routers in a small network. Helps students learn how to configure a router for basic functionality including RIP/r2, static and default routing. Pre-requisite: CIT 161 OR Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

CIT 167B(1) Course ID:017011 Intro to Switching & VLANs
Covers the architecture, components, and operations of switches in a small network. Helps students learn how to configure a switch with VLANs for basic functionality. Pre-requisite: CIT 167A OR Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

CIT 170(3) Course ID:004720 Database Design Fundamentals
Provides an overview of database and database management system concepts, internal design models, normalization, database models, development tools, and applications. Pre-requisite: (CIT 105 OR CST 105 OR IMD 100) AND (MAT 085 OR MAT 120) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

CIT 171(3) Course ID:004721 SQL I
Provides students with an extensive introduction to database manipulation techniques. Introduces students to SQL; will create and maintain database objects; and store, retrieve, and manipulate data using SQL. Pre-requisite: (CIT 120 and CIT 170) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture

CIT 180(3) Course ID:006191 Security Fundamentals
Introduces basic computer and network security concepts and methodologies. Covers principles of security; compliance and operational security; threats and vulnerabilities; network security; application, data, and host security; access control and identity management; and cryptography. Helps to prepare students for the COMPTIA Security+ examination. Pre-requisite: (CIT 160 OR CIT 161) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules, Technical
CIT 182(3) Course ID:009611
Perimeter Defense
Provides comprehensive 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:009512
Attacks and Exploits
Provides knowledge and skills necessary to understand a variety of attacks and exploits against computers and networks. Teaches effective defensive techniques against real attacks. Pre-requisite: CIT 180 OR Consent of Instructor.  Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 201(3) Course ID:007295
Information Storage Management
Provides a comprehensive introduction to storage technology. Explores the architectures, features, and benefits of intelligent storage systems, networked storage technologies, long-term archiving solutions, information security, and the emerging field of storage virtualization and cloud technologies. Pre-requisite: [CIT 167 AND (CIT 214 OR CIT 217)] OR Consent of Instructor.  Lecture/Lab: 3.0 credits (60 contact hours).

Components: Integrated Laboratory, Integrated Lecture Attributes: Technical

CIT 203(3) Course ID:007296
Introduction to Virtualization
Provides an introduction to virtualization technologies including the architecture, its applications, and best practices. Utilizes VMware ESXi servers and VMware vCenter servers for creation and management of virtual machines, virtual switches and storage architectures including distributed resource scheduling, high availability, and fault tolerance. Satisfies the requirements for the vSphere Foundations exam and the VMware Certified Associate Data Center Virtualization (VCA-DCV). Pre-requisite: [CIT 167 AND (CIT 214 OR CIT 217)] OR 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 associated to cloud computing. Examines the required technology essentials across all domains including server, storage, networking, applications, and databases to help develop a strong understanding of virtualization and cloud computing technologies. Pre-requisite: (CIT 201 and CIT 203) or consent of instructor.  Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture Attributes: Technical

CIT 206(3) Course ID:017347
Amazon Web Services Practitioner
Introduces the fundamentals of the services available in Amazon Web Services (AWS). Teaches an overall understanding of AWS Cloud, independent of specific technical roles. Uses a hands-on approach to solution development using actual AWS cloud services. Provides a detailed overview of cloud concepts, AWS services, security, architecture, pricing, and support. Prepares students for the AWS Certified Cloud Practitioner exam. Pre-requisites: CIT 170 AND (CIT 161 OR CIT 169), or consent of the instructor. Integrated Lecture/Lab 3.0 credits (60 contact hours).

Components: Integrated Laboratory, Integrated Lecture Attributes: Technical

CIT 207(3) Course ID:017141
Amazon Web Services Architecting
Introduces the fundamentals of the services available in Amazon Web Services (AWS). Teaches an overall understanding of AWS Cloud, independent of specific technical roles. Uses a hands-on approach to solution development using actual AWS cloud services. Pre-requisites: CIT 206 AND CIT 167, or consent of instructor. Integrated Lecture/Lab: 3 credits (50 contact hours).

Components: Integrated Laboratory, Integrated Lecture Attributes: Technical

CIT 209(4) Course ID:015645
Scaling Networks
Covers building IT infrastructure on Amazon Web Services (AWS). Teaches how to optimize use of the AWS platform by understanding AWS services and how those services fit into cloud-based solutions. Teaches how to develop and maintain a well-architected AWS cloud solution. Covers cloud solution reliability, efficiency, and cost-optimization strategies. Emphasizes best practices for the AWS Cloud including the process of architecting optimal solutions. Offers a hands-on approach to solution development using actual AWS cloud services. Pre-requisites: CIT 206 AND CIT 167, or consent of instructor. Integrated Lecture/Lab: 3 credits (60 contact hours).

Components: Integrated Laboratory, Integrated Lecture Attributes: Technical

CIT 209A(1) Course ID:017013
Advanced Campus LANs
Provides a comprehensive introduction to cloud computing deployment and service models, cloud infrastructure, and the key considerations associated to cloud computing. Examines the required technology essentials across all domains including server, storage, networking, applications, and databases to help develop a strong understanding of virtualization and cloud computing technologies. Pre-requisite: CIT 203 OR Consent of Instructor.  Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture Attributes: Course Also Offered in Modules, Technical

CIT 209B(1) Course ID:017014
Scaling Networks
Covers the architecture, components, and operations of the campus wired LAN design. Includes configuring, verifying and troubleshooting multi switch VLANs using VTP and DTP. Pre-requisite: CIT 167 OR Consent of Instructor.  Lecture: 1 credit (15 contact hours).

Components: Lecture

CIT 209B(1) Course ID:017015
Intro to OSPF
Covers the architecture, components, and operations of routers and switches in a larger and more complex network. Helps students learn how to configure 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 in a network. Pre-requisite: CIT 167 OR Consent of Instructor.  Lecture: 4.0 credits (60 contact hours).

Components: Lecture Attributes: Course Also Offered in Modules, Technical

CIT 210(1) Course ID:017016
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 virtual private network (VPN) operations in a complex network. Pre-requisite: CIT 209 OR Consent of Instructor.  Lecture: 1 credit (15 contact hours).

Components: Lecture Attributes: Course Also Offered in Modules, Technical

CIT 212A(1) Course ID:017017
Wan Concepts
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 using the HDLC and PPP protocols. Pre-requisite: CIT 209 OR Consent of Instructor.  Lecture: 1 credit (15 contact hours).

Components: Lecture Attributes: Course Also Offered in Modules, Technical

CIT 212B(1) Course ID:017018
Branch Connections and ACLS
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 with branch connections and Access Control Lists. Pre-requisite: CIT 209A OR Consent of Instructor.  Lecture: 1 credit (15 contact hours).

Components: Lecture

CIT 212C(1) Course ID:017019
Network Monitoring and QoS
Covers WAN technologies and network services required by converged applications in a complex network. Helps students learn how to monitor networks and understand QoS concepts in a complex network. Pre-requisite: CIT 209B OR Consent of Instructor.  Lecture: 1 credit (15 contact hours).

Components: Lecture

CIT 212D(1) Course ID:017020
Troubleshooting Networks
Covers WAN technologies and network services required by converged applications in a complex network. Helps students learn how to troubleshoot end to end network devices and resolve common issues in a complex network. Pre-requisite: CIT 212C OR Consent of Instructor.  Lecture: 1 credit (15 contact hours).

Components: Lecture

CIT 213(3) Course ID:006192
Microsoft Client Configuration
Covers installation and configuration of the current Microsoft Windows client operating system. Helps prepare students for exams in the Microsoft certification exam series. Pre-requisite: (CIT 111 AND (CIT 160 OR CIT 161)) OR Consent of Instructor.  Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Course Also Offered in Modules, Technical

CIT 214(3) Course ID:006914
Microsoft Server Configuration
Provides students with the knowledge and skills to install, configure and administer a network server infrastructure including DNS, DHCP, Hyper-V, including the design and implementation of an Active Directory environment. Covers how to implement and configure secure network access, implement fault tolerant storage technologies, enable network technologies most commonly used with Windows Servers and IP-enabled networks, configure an Active Directory environment, and work with virtual drives and devices. Assists in prepping students for various Microsoft certification exam series. Pre-requisite: (CIT 111 AND (CIT 160 OR CIT 161)) OR Consent of Instructor.  Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Course Also Offered in Modules, Technical

CIT 224(3) Course ID:006914
Microsoft Server Configuration
Provides students with the knowledge and skills to install, configure and administer a network server infrastructure including DNS, DHCP, Hyper-V, including the design and implementation of an Active Directory environment. Covers how to implement and configure secure network access, implement fault tolerant storage technologies, enable network technologies most commonly used with Windows Servers and IP-enabled networks, configure an Active Directory environment, and work with virtual drives and devices. Assists in prepping students for various Microsoft certification exam series. Pre-requisite: (CIT 111 AND (CIT 160 OR CIT 161)) OR Consent of Instructor.  Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Course Also Offered in Modules, Technical
3D Animation for Video Games
Exposes students to the specialized process of animating 3D assets for gaming applications. Familiarizes students with animating both organic and inorganic assets, lighting scenes, rendering and producing cut-scenes, and preparing character assets for in-game motion. Allows students to acquire the necessary skills and techniques to integrate audio with their animations using basic sound-engineering software and processes. Pre-requisite: CIT/IMD 124 AND CIT/IMD 222 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Technical

GIS Data Analysis
Explores Geographical Information System extensions. Introduces and identifies popular advanced extensions used for image analysis, spatial analysis, and 3D analysis. Collection and analysis of field data utilizing GPS devices and data collection applications. Pre-requisite: CIT 125 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Technical

Help Desk Operations
Introduces students to advanced programming concepts using C++. Includes advanced data structures, concurrency, innovative algorithms, advanced file processing, and topics that are unique to C++. Pre-requisite: CIT 142 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Technical

CIT 244(3) Course ID:006923 Programming II: Language
Introduces students to advanced programming concepts using an industry-specific or emerging programming language. Includes advanced features of the language studied, such as, advanced data structures, concurrency, innovative algorithms, advanced file processing, and topics that are unique to the language studied. Pre-requisite: CIT 147 (for the same programming language) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Technical

Microsoft Server Administration
Covers the skills needed to maintain and administer a Windows Server 2012 environment, including user and group management, network access, and data security at an intermediate level. Helps prepare students to implement a core Windows Server infrastructure in an enterprise environment (second in a series of three courses). Pre-requisite: CIT 214 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Technical

CIT 219(3) Course ID:006916 Computer Graphics
Introduces basic computer graphics with an emphasis on graphics for game design. Instructs students in practical aspects of graphics such as color, ray tracing, rasterization, shading, mapping, light, and shadow. Pre-requisite: CIT105 OR IMD100 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Technical

3D Modeling for Video Games
3D Modeling for Video Games
Instructs students in the use of industry-standard 3D modeling software specific to the video-game industry. Emphasizes both architectural and character modeling. Familiarizes the student with key 3D modeling concepts and methods, workflow, and the creation and preparation of 3D assets for use specifically in a video-game application. Allows students to create a variety of 3D assets. Pre-requisite: CIT/IMD 221 OR Consent of Instructor. Lecture: 3 credits (45 contact hours). Components: Lecture Course Equivalents: IMD 222 Attributes: Technical

CIT 223(3) Course ID:006917 3D Animation for Video Games
3D Animation for Video Games
Instructs students to the specialized process of animating 3D assets for gaming applications. Familiarizes students with animating both organic and inorganic assets, lighting scenes, rendering and producing cut-scenes, and preparing character assets for in-game motion. Allows students to acquire the necessary skills and techniques to integrate audio with their animations using basic sound-engineering software and processes. Pre-requisite: CIT/IMD 124 AND CIT/IMD 222 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Components: Lecture Course Equivalents: IMD 223 Attributes: Technical

CIT 225(3) Course ID:006918 GIS Data Analysis
Explores Geographical Information System extensions. Introduces and identifies popular advanced extensions used for image analysis, spatial analysis, and 3D analysis. Collection and analysis of field data utilizing GPS devices and data collection applications. Pre-requisite: CIT 125 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Technical

CIT 229(3) Course ID:006919 Select Topics in GIS
Select Topics in GIS
Explores selected topics in Geographical Information Systems such as homeland security, agriculture, government applications, remote sensing, spatial modeling, GPS techniques, or cartography. (Course may be repeated with different topics to a maximum of six credit hours.) Pre-requisite: CIT 125 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Technical

CIT 232(3) Course ID:006193 Advanced Productivity Software
Uses advanced functions of word processing, presentation, and email software. Includes working with complex documents creating and preparing data distribution on the web. Pre-requisite: CIT 130 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Technical

CIT 238(3) Course ID:004728 Adv Data Organization Software
Uses advanced features of databases and spreadsheets. Explores complex databases and spreadsheets for the creation and preparation of data distribution on the Web. Pre-requisite: CIT 130 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Technical

CIT 237(3) Course ID:017021 GIS Data Analysis
Explores Geographical Information System extensions. Introduces and identifies popular advanced extensions used for image analysis, spatial analysis, and 3D analysis. Collection and analysis of field data utilizing GPS devices and data collection applications. Pre-requisite: CIT 125 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Technical

Microsoft Server Advanced Services
Covers the advanced configuration tasks necessary to deploy, manage and maintain a Windows Server environment, including fault tolerance, certificate services, and identification. Helps prepare students to implement a core Windows Server 2012 infrastructure in an enterprise environment (third in a series of three courses). Pre-requisite: CIT 214 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Technical

CIT 217(3) Course ID:004724 UNIX/Linux Administration
Developed in 1969, the UNIX operating system shaped the development of the Internet and is still used extensively in servers, workstations, and mobile devices. Leam the fundamental skills necessary to install UNIX/Linux and maintain a UNIX/Linux system on a day-to-day basis. Pre-requisite: [CIT 111 AND (CIT 160 OR CIT 161)] OR Consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours) Components: Lecture Attributes: Course Also Offered in Modules, Technical

CIT 218(3) Course ID:004725 UNIX/Linux Net Infrastructure
Establishing secure networking environments is a key strength of the UNIX/Linux operating system. Explores naming, messaging, file transfer, remote login, routing, address assignment, distributed file systems, web, and email services in a standard UNIX/Linux server environment. Pre-requisite: CIT 217 OR Consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours) Components: Lecture Attributes: Technical

CIT 219(3) Course ID:006915 Internet Protocols
Provides an in-depth exploration of the components of the TCP/IP protocol suite and the associated underlying technologies required to support them. Includes design, installation, configuration, management, and troubleshooting of TCP/IP networks. Pre-requisite: (CIT 160 OR CIT 161) OR Consent of Instructor. Lecture/Lab: 3.0 credits (60 contact hours) Components: Lecture Attributes: Technical

CIT 220(3) Course ID:006916 Computer Graphics
Introduces basic computer graphics with an emphasis on graphics for game design. Instructs students in practical aspects of graphics such as color, ray tracing, rasterization, shading, mapping, light, and shadow. Pre-requisite: CIT105 OR IMD100 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Technical

CIT 221(3) Course ID:015661 Microsoft Server Administration
Covers the skills needed to maintain and administer a Windows Server 2012 environment, including user and group management, network access, and data security at an intermediate level. Helps prepare students to implement a core Windows Server infrastructure in an enterprise environment (second in a series of three courses). Pre-requisite: CIT 214 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Technical

CIT 216(3) Course ID:015648 Microsoft Server Advanced Services
Covers the advanced configuration tasks necessary to deploy, manage and maintain a Windows Server environment, including fault tolerance, certificate services, and identification. Helps prepare students to implement a core Windows Server 2012 infrastructure in an enterprise environment (third in a series of three courses). Pre-requisite: CIT 214 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Technical
CIT 249(3) Course ID:005208
Java II
Provides students with an extensive overview of designing and developing advanced object-oriented applications using the Java programming language. Includes input and output streams (file processing), polymorphism, inheritance, multithreading, recursion, and other advanced topics. Pre-requisite: CIT 149 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Same As Offering: CIT 249
Attributes: Technical

CIT 249(5) Course ID:005208
Java II
Provides students with an extensive overview of designing and developing advanced object-oriented applications using the Java programming language. Includes input and output streams (file processing), polymorphism, inheritance, multithreading, recursion, and other advanced topics. Pre-requisite: CIT 149 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Same As Offering: CIT 249
Attributes: Technical

CIT 251(3) Course ID:007392
Social Media II
Provides students with skills, knowledge, and experience to respond to the challenges of a rapidly changing world through the implementation of social media strategies. Examines social media plans for building social profiles, selecting appropriate audiences, and effective communication through identified social media tools. Covers additional trends, case studies, and research on the creation on utilization of web and social media technologies and practices. Pre-requisite: CIT 151 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 253(3) Course ID:005039
Web Server Administration
Provides an in-depth study of the functions required to run a safe and stable web server. Considers multiple web services on multiple platforms from installation to configuration, availability, and security. Requires hands-on experience with web services. Pre-requisite: [CIT 150 OR CIT 155 OR CIT 157] AND CIT 170 AND Approved Level I Programming Language) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 255(3) Course ID:005104
Applied Internet Technologies
Provides a framework for integrating the content of the Internet Technologies Web Programming track into a complete and functioning web site. Creates a portfolio of a fully functional web site to aid student employment within the Web Programming field. Pre-requisite or Co-requisite: CIT 253 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 258(3) Course ID:005211
Internet Technologies Seminar
Incorporates research, study, and discussion of current and emerging topics, issues, and trends in Internet technologies. Requires participation in class presentations, as well as individual and/or group projects involving Internet technologies. Pre-requisite or Co-requisite: CIT 253 or Co-Requisite of CIT 255 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 260(3) Course ID:004730
Network Hardware Installation and Troubleshooting
Provides students with the knowledge and skills necessary to design, install, configure, and troubleshoot cabling systems and equipment used to connect a local area network. Pre-requisite: CIT 160 OR CIT 161 OR Consent of Instructor. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (30 contact hours).
Components: Laboratory, Lecture

CIT 261(3) Course ID:005209
MS Active Directory Services
Provides students with the knowledge and skills necessary to install, configure, and administer Microsoft Windows Directory Services. Focuses on implementing Group Policy and understanding the Group Policy tasks required to centrally manage users and computers. Assists in prepping students for exams in the Microsoft certification exam series. Pre-requisite: (CIT 111 AND CIT 160 OR CIT 161)) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 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 prepping students for exams in the Microsoft certification exam series. Pre-requisite: (CIT 111 AND (CIT 160 OR CIT 161)) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 263(1 - 6) Course ID:006246
Advanced Topics in Microsoft Windows: (Topic)
Covers concepts and/or skills from special areas of interest in Microsoft Windows operating systems. Focus on specific topics that will vary from semester to semester at the discretion of the instructor. Pre-requisite: CIT 213 or consent of instructor. Lecture: 1-6 credits (15-90 contact hours).
Components: Lecture
Attributes: Technical

CIT 264(3) Course ID:006194
Microsoft Server Management
Focuses on the concepts and skills required to manage and maintain Microsoft Windows Servers. Topics include configuration and management of storage solutions, deployment images, Hyper-V implementations, and Windows containers. Pre-requisite: CIT 262 OR Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 265(3) Course ID:006195
MS Application Servers
Focuses on the deployment, configuration and management of Microsoft servers that support user applications, especially web servers, Remote Desktop servers, SharePoint servers and file servers. Pre-requisite: CIT 213 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 271(3) Course ID:004732
SQL II
Provides an extensive overview of SQL using programming to create, query, manage and maintain databases. Uses advanced features of SQL, including stored procedures and triggers, to design and interface with a database and other applications. Pre-requisite: CIT 171 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 272(3) Course ID:016261
Game Design Theory
Introduces students to the experience-oriented standards and techniques of gaming on a digital platform. Includes hands-on conceptualization and writing of a game created by the student. Emphasizes creativity, player experiences and motivations, styles of play, types of games, character creation, world creation, and story-driven narrative within a video game. Offers students the opportunity to complete an industry-quality Game Design Document. Pre-requisite: CIT/IMD 124 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 273(3) Course ID:016262
Game Production
Provides students with the opportunity to produce a fully playable 3D video game using assets and materials created in previous courses. Offers students the opportunity to employ an industry-standard game engine to meld 3D content, audio, narrative, character, and environment into a professional and enjoyable video game experience. Pre-requisite: CIT/IMD 224 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Equivalent: IMD 273

CIT 274(3) Course ID:006927
Programming III: Language
Introduces students to complex programming concepts using an industry-specific or emerging programming language. Includes complex features of the language not previously covered in Programming I and Programming II. Comprehensive projects will be developed that model work performed in a corporate environment. Pre-requisite: CIT 247 (for the same programming language) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 277(3) Course ID:006628
Visual Basic III
Provides students with the knowledge and skills to design, develop, and implement distributed and Web client applications using the Visual Basic programming language. Includes advanced application and user interface design, custom libraries, ActiveX Objects, stored procedures, and distributed applications. Pre-requisite: CIT 248 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 284(3) Course ID:006629
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 a comprehensive understanding of network security concepts. Includes installation, troubleshooting and monitoring of network devices to maintain integrity, confidentiality and availability of data and devices. Covers implementation of hosts and perimeter edge device firewalls and defense in-depth prevention systems. Pre-requisite: CIT 167 OR CIT 212 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

CIT 290(3) Course ID:004733
Instructor Consent Required
Internship
Provides students with an opportunity to work with a company or community organization. Students must complete a project with a faculty advisor. Credit for this course is based on the consent of the faculty advisor. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 291(3) Course ID:006198
CIT Capstone
Apply acquired techniques, knowledge, and skills to successfully analyze, design, and plan a CIT project. Develop a project management plan and system analysis deliverables in a portfolio. Pre-requisite: 36 credit hours of CIT Courses OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

CIT 293(1) Course ID:017008
CIT Employability Studies
Requires students to provide evidence of job search and interview skills. Students may choose one of four options: 1) a career fair, 2) a career fair, 3) a career fair, or 4) a career fair. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Technical

CIT 295(1 - 3) Course ID:004741
Independent Problems in CIT: Topic
Explores concepts and/or skills from special areas of interest in Computer & Information Technologies. Topics vary from semester to semester. May be repeated up to two times with different topics to a maximum of 6 credit hours. Pre-requisite: Consent of Instructor. Lecture: 1.0 - 3.0 credits (15 - 45 contact hours).
Components: Lecture
Attributes: Technical

CIT 299(1 - 3) Course ID:004742
Special Topics in CIT: (Topic)
Explores concepts and/or skills from special areas of interest in computer and information systems. May be repeated with different topics to a maximum of 6 credit hours. Pre-requisite: Consent of Instructor. Lecture: 1.0 - 3.0 credits (15-45 contact hours).
Components: Lecture
Attributes: Technical

CIT 1051(0.5) Course ID:006972
Computer Basics
Provides an introduction to the computer and the convergence of technology including computer hardware and software. Pre-requisite: RDG 20 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

CIT 1052(0.6) Course ID:006973
System and Utility Software
Introduces file management and presents basic use of systems and utility software. Pre-requisite: RDG 20 OR Consent of Instructor. Lecture: 0.6 credits (9.0 contact hours).
Components: Lecture

CIT 1053(0.8) Course ID:006974
Internet, Email, and Networks
Introduces the Internet, e-mail, course management systems and networking. Pre-requisite: RDG 20 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1054(0.5) Course ID:006975
Globalization and the Cloud
Introduces globalization and impact and use of cloud computing. Pre-requisite: RDG 20 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

CIT 1055(0.6) Course ID:006976
Software Basics
Provides basic use of application and programming software. Pre-requisite: RDG 20 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 1111(0.8) Course ID:007091
Computer Essentials
Provides a practical view of hardware components. Pre-requisite: CIT 105 AND MAT 065 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1112(0.8) Course ID:007092
Computer Maintenance
Provides a practical view of troubleshooting, repair, and maintenance. Pre-requisite: CIT 1111 or Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1113(1) Course ID:007093
Operating Systems and Tools
Provides a practical view of operating system interfaces and management tools. Pre-requisite: CIT 1112 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 1114(0.8) Course ID:007094
Networking and Security
Provides a practical view of networking components and computer security. Pre-requisite: CIT 1113 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1115(0.6) Course ID:007095
Operational Procedures
Provides a practical view of operational procedures. Pre-requisite: CIT 1114 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 1201(1) Course ID:006977
Basic Program Logic
Introduces students 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 students with the knowledge and skills to appropriately select and control 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 designs 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
Introduces the use of projection equipment and techniques. 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
Introduces the use of digital mapping software and techniques. 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
Introduces the use of geospatial data and techniques. Pre-requisite: CIT 1251 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 1301(0.8) Course ID:006980
Word Processing Applications
Introduces word processing applications software. Pre-requisite: CIT 105 OR CIT 1252 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1302(0.8) Course ID:006981
Spreadsheet Applications
Introduces spreadsheet applications software. Pre-requisite: CIT 105 OR CIT 1252 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1303(0.8) Course ID:006982
Database Applications
Introduces database applications software. Pre-requisite: CIT 105 OR CIT 1252 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1304(0.6) Course ID:006983
Presentation Software Apps
Introduces presentation software applications software. Pre-requisite: CIT 105 OR CIT 1252 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
<table>
<thead>
<tr>
<th>Course ID:006984</th>
<th>CIT 1401(0.6)</th>
<th>JavaScript Basics</th>
<th>Components: Lecture</th>
<th>Provides an overview of the JavaScript language. Introduces variables, operators, and data types. Pre-requisite: CIT 120 AND (CIT 150 or CIT 155) OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course ID:006985</td>
<td>CIT 1402(0.8)</td>
<td>Input/Output Processes</td>
<td>Components: Lecture</td>
<td>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).</td>
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<tr>
<td>Course ID:006986</td>
<td>CIT 1403(0.8)</td>
<td>Control Structures/Patters</td>
<td>Components: Lecture</td>
<td>Introduces control structures and application scripts using JavaScript. Identifies errors and code efficiency. Pre-requisite: CIT 1402 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).</td>
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<tr>
<td>Course ID:006987</td>
<td>CIT 1404(0.8)</td>
<td>JavaScript Objects/Scripts</td>
<td>Components: Lecture</td>
<td>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).</td>
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<tr>
<td>Course ID:016592</td>
<td>CIT 1491(1)</td>
<td>Java Programming Structure</td>
<td>Components: Lecture</td>
<td>Introduces students to fundamental programming concepts using the Java programming language including data types, control structures, error-handling, and simple data structures. Pre-requisite: CIT 120 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).</td>
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<tr>
<td>Course ID:016593</td>
<td>CIT 1492(1)</td>
<td>Java Object Oriented Design</td>
<td>Components: Lecture</td>
<td>Introduces students to fundamental programming concepts using the Java programming language to develop object-oriented and modular programming. Pre-requisite: CIT 1491 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).</td>
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<tr>
<td>Course ID:016594</td>
<td>CIT 1493(1)</td>
<td>The Java GUI</td>
<td>Components: Lecture</td>
<td>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).</td>
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<tr>
<td>Course ID:016595</td>
<td>CIT 1501(0.6)</td>
<td>Internet Technologies</td>
<td>Components: Lecture</td>
<td>Presents traditional and emerging Internet technologies including Internet fundamentals and governing organizations for the web. Pre-requisite: CIT 105 AND CIT 120 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).</td>
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<tr>
<td>Course ID:016596</td>
<td>CIT 1502(0.8)</td>
<td>C++ Control Structures</td>
<td>Components: Lecture</td>
<td>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).</td>
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<tr>
<td>Course ID:016597</td>
<td>CIT 1503(1)</td>
<td>The C++ GUI</td>
<td>Components: Lecture</td>
<td>Introduces fundamental programming concepts using the C++ programming language. Pre-requisite: CIT 120 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).</td>
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<tr>
<td>Course ID:016598</td>
<td>CIT 1504(0.8)</td>
<td>C++ Objects/References</td>
<td>Components: Lecture</td>
<td>Identifies objects and reference variables using the C++ language. Identifies errors and code efficiency. Pre-requisite: CIT 1503 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).</td>
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<tr>
<td>Course ID:016599</td>
<td>CIT 1511(0.5)</td>
<td>Social Media Overview</td>
<td>Components: Lecture</td>
<td>Introduces students to the study of social media. Pre-requisite: Digital Literacy or Consent of Instructor. Lecture: 0.5 credit hour (7 contact hours).</td>
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<tr>
<td>Course ID:016600</td>
<td>CIT 1512(1.5)</td>
<td>Basic Social Media Tool</td>
<td>Components: Lecture</td>
<td>Introduces students to the types of social media. Pre-requisite: CIT 1511 or Consent of Instructor. Lecture: 1.5 credit hours (23 contact hours).</td>
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<tr>
<td>Course ID:016601</td>
<td>CIT 1513(1)</td>
<td>Societal Impacts</td>
<td>Components: Lecture</td>
<td>Examines the benefits for businesses to leverage the use of social media as well as employing social media policy. Pre-requisite: CIT 1512 or Consent of Instructor. Lecture: 1 credit hour (15 contact hours).</td>
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<tr>
<td>Course ID:016602</td>
<td>CIT 1514(1)</td>
<td>Python Overview</td>
<td>Components: Lecture</td>
<td>Introduces fundamental programming concepts (including data types and control structures) using the Python programming language. Pre-requisite: CIT 1441 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).</td>
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<tr>
<td>Course ID:016603</td>
<td>CIT 1515(1)</td>
<td>Python OOP Programming</td>
<td>Components: Lecture</td>
<td>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).</td>
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<tr>
<td>Course ID:016604</td>
<td>CIT 1521(1)</td>
<td>Web Page Development Basics</td>
<td>Components: Lecture</td>
<td>Introduces web page design through the use of HTML and CSS. Emphasizes W3C web design and accessibility standards. Pre-requisite: CIT 105 OR Consent of Instructor. Lecture: 1.0 credits (15 contact hours).</td>
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<tr>
<td>Course ID:016605</td>
<td>CIT 1522(1)</td>
<td>Website Development and Security</td>
<td>Components: Lecture</td>
<td>Introduces web site production software. Pre-requisite: CIT 1752 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).</td>
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<tr>
<td>Course ID:016606</td>
<td>CIT 1523(1)</td>
<td>Network Management</td>
<td>Components: Lecture</td>
<td>Introduces students to basic concepts and components of a data network and the Internet, architecture, structure, functions, components, and models. Pre-requisite: MAT 065 OR Consent of Instructor. Pre-requisite OR Co-requisite: CIT 111 OR Consent of Instructor. Lecture: 0.3 credits (4.5 contact hours).</td>
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<tr>
<td>Course ID:016607</td>
<td>CIT 1531(1)</td>
<td>Protocol Models</td>
<td>Components: Lecture</td>
<td>Describes the principles of simple LAN development including the OSI and TCP/IP models, the encapsulation process, and data flow between two hosts across a network. Pre-requisite: CIT 1611 OR Consent of Instructor. Lecture: 0.4 credits (6 contact hours).</td>
</tr>
</tbody>
</table>
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: 0.8 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: CIT 1611 OR Consent of Instructor. Lecture: 0.7 credits (10.5 contact hours).
Components: Lecture

CIT 1615(1) Course ID:016322
IP Subnetting
Introduces the design and 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 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 design, architecture and components. Describes basic operations of switches including configuration and port security. Pre-requisite: CIT 161 OR Consent of Instructor. Lecture: 0.3 (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(0.8) 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 161 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 1674(0.6) 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 CIT 1673) OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 1675(0.5) Course ID:016330
Routing Protocols & RIP
Describes dynamic routing protocols. Covers basic concepts and configuration of RIPv1 and RIPv2. Pre-requisite: CIT 1673 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

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 161 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

CIT 1678(0.5) Course ID:016333
DHCP and NAT
Covers operations and configuration of DHCP on routers in a small network. Describes the operation and configuration of static NAT, dynamic NAT, and port address translation (PAT). Pre-requisite: CIT 1677 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

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 optimization strategies and methods including administration, performance tuning, backup, and recovery. Pre-requisite: CIT 1703 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 1711(1) Course ID:016334
Database Creation using SQL
Introduces SQL techniques used in database/tables creation. Pre-requisite: CIT 120 AND CIT 170, OR consent of instructor. Lecture 1 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 credits (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 CIT 105) 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 1801 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: CIT 180 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: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1823(0.6) Course ID:007023
Perimeter Testing
Performs methods and skills for conducting perimeter defense testing against attacks. Pre-requisite: CIT 1822 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture
CIT 1824(0.8) Course ID:007024
**Intrusion Detection**
Presents information and techniques for configuring intrusion-detection systems to secure computers and networks. Pre-requisite: CIT 1823 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 1841(0.8) Course ID:007025
**Ethical Hacking Concepts**
Present 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**
Presest 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**
Presest effective defensive techniques against real attacks. Pre-requisite: CIT 1842 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 2091(1) Course ID:016595
**Advanced Switching**
Describesthe operation and configuration of advanced switching technologies in networks, including STP, RSTP, and link aggregation. Pre-requisite: CIT 167 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 2092(1) Course ID:016596
**Single- and Multi-area OSPF**
Coversthe advanced single-area OSPF and multi-area OSPF operation and configuration in both IPv4 and IPv6 networks. Pre-requisite: CIT 2091. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 2093(1) Course ID:016597
**EIGRP**
Coversthe operation and configuration of EIGRP in both IPv4 and IPv6 networks. Pre-requisite: CIT 2092 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 2094(1) Course ID:016598
**LAN/Wireless Design & IOS**
Coversthe Cisco model for LAN design, operation and configuration of wireless LAN, and the basics of IOS licensing. Pre-requisite: CIT 2093 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 2121(1.2) Course ID:016722
**WANs, PPP, and Frame Relay**
Coversthe WAN technologies and network services used in complex networks, including PPP and Frame Relay. Enables studentstounderstand the selection criteria design principles of WAN technologies to meet network requirements. Pre-requisite: CIT 209 or Consent of Instructor. Lecture: 1.2 credits (18 contact hours).
Components: Lecture

CIT 2121(1.2) Course ID:016723
**Configuring Connections**
Coversthe 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**
Coversthe network security tools including Access Control Lists (ACL) and Virtual Private Networks (VPN) in a complex network. Enables studentstosuccessfully 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**
Coversthe WAN technologies and network services used in WANs, PPP, and Frame Relay. 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 111 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 connection, configuring IP settings, and network settings in the current Microsoft Windows operating system environment. Assists in the preparation of exams in the Microsoft certification exam series. Pre-requisite: CIT 2131 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 2133(0.6) Course ID:007031
**Windows OS Resources**
Provides concepts and skills for managing user accounts and access to resources in the current Microsoft Windows operating system environment. Assists in the preparation of exams in the Microsoft certification exam series. Pre-requisite: CIT 2132 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 2134(0.6) Course ID:007032
**Mobility Configurations**
Provides concepts and skills for configuring mobility options and security in the current Microsoft Windows operating system environment. Assists in the preparation of exams in the Microsoft certification exam series. Pre-requisite: CIT 2133 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 2135(0.6) Course ID:007033
**Monitoring Windows Systems**
Provides concepts and skills for managing updates and local performance, monitoring system performance and resource usage, configuring backups, system recovery, and troubleshooting the boot process in the current Microsoft Windows operating system environment. Assists in the preparation of exams in the Microsoft certification exam series. Pre-requisite: CIT 2134 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 2141(1) Course ID:007096
**OS Server Concepts**
Provides an overview of network concepts such as TCP/IP addressing and subnetting. Provides concepts and skills to install and setup Windows Server. Assists in the preparation of exams in the Microsoft certification exam series. Pre-requisite: (CIT 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**
Provides 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**
Provides concepts and knowledge to configure and manage server role policy and security compliance. Assists in the preparation of exams in the Microsoft certification exam series. Pre-requisite: CIT 2142 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 2151(0.75) Course ID:016337
**Initial Server Deployment**
Introducvesthe skills necessary to install and configure Microsoft® Windows® Server. Covers initial network installation & configuration of a file server including update policy, file and folder access policies and security at an intermediate level. Pre-requisite: CIT 214 OR Consent of Instructor. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture

CIT 2152(0.75) Course ID:016338
**Administering the Server**
Introducестhe skills necessary to administer a Windows Server deployment. Covers server infrastructure monitoring, remote access configuration, and network policy implementation in an enterprise environment. Pre-requisite: CIT 2151 or Consent of instructor. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture

CIT 2153(0.75) Course ID:016339
**Administering the Domain**
Provides the 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 a database-driven web site. Pre-requisite: CIT 2152 or Consent of Instructor. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture

CIT 2154(0.75) Course ID:016340
**Advanced Administration Topics**
Provides the skills necessary 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 2161(1) Course ID:016610
**Advanced Active Directory**
Provides the concepts necessary to deploy and manage 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).
Components: Lecture
CIT 2163(1) Course ID:016612
Disaster Recovery & AD Services
Covers the advanced configuration tasks necessary to deploy, manage and maintain a Windows Server environment, including disaster recovery, certificate services, and identity federation. Helps prepare students to implement a core Windows Server 2012 infrastructure in an enterprise environment. Pre-requisite: CIT 2162 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

CIT 2171(0.8) Course ID:007034
Intro to UNIX/Linux
Introduces basic UNIX/Linux concepts. Pre-requisite: CIT 111 AND CIT 160 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).

Components: Lecture

CIT 2173(1.4) Course ID:007036
File Processing and Lab
Introduces commands and scripts for file processing. Pre-requisite: CIT 2172 OR Consent of Instructor. Lecture: 0.4 credits (6 contact hours), Lab: 1.0 credit (30 contact hours).

Components: Lecture

CIT 2251(1) Course ID:016859
Spatial Analysis
Georeferencing and digitization will be mastered. Pre-requisite: CIT 125 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

CIT 2252(1) Course ID:016860
3D Spatial Analysis
Creation of three dimensional surfaces from digital elevation models. Pre-requisite: CIT 2251 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

CIT 2253(1) Course ID:016861
Field Data
Collection of field data and the analysis of the collected data. Pre-requisite: CIT 2252 or Consent of Instructor. Pre-requisite: CIT 2252 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

CIT 2321(1) Course ID:016341
Help Desk & Customer Service
Explores help desk concepts and customer service skills. Pre-requisite: CIT 105 OR Consent of Instructor. Lecture: 1 credit (15 contact hours).

Components: Lecture

CIT 2322(1) Course ID:016342
Help Desk Tools & Techniques
Introduces a variety of tools and techniques to provide user support in help desk operations. Explores troubleshooting problems, help desk operations and software, needs analysis, and facilities management. Pre-requisite: CIT 2321. Lecture: 1 credit (15 contact hours).

Components: Lecture

CIT 2323(1) Course ID:016343
End User Support
Explores writing for end users, training end users and other topics related to end user support. Pre-requisite: CIT 2322. Lecture: 1 credit (15 contact hours).

Components: Lecture

CIT 2341(1) Course ID:016613
Advanced Word Processing
Uses advanced functions of word processing. Includes working with complex documents creating and preparing data distribution on the web. Pre-requisite: CIT 2341. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

CIT 2342(1) Course ID:016614
Advanced Presentation Software
Uses advanced functions of presentation software. Includes working with complex documents creating and preparing data distribution on the web. Pre-requisite: CIT 2341. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

CIT 2343(0.75) Course ID:016615
Advanced Digital Communication
Uses advanced functions of electronic communications software. Includes working with complex documents creating and preparing data distribution on the web. Lecture: 0.75 credits (11 contact hours).

Components: Lecture

CIT 2344(0.25) Course ID:016616
Software Options
Explore alternative software options. Includes using alternative office suites and collaboration between software packages. Pre-requisite: CIT 2343. Lecture: 0.25 credits (4 contact hours).

Components: Lecture

CIT 2361(1) Course ID:016617
Reports, Forms, & Macros
Uses advanced database techniques used in forms, reports, macros, and data integration, for the preparation of data distribution on the web. Pre-requisite: CIT 130 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

CIT 2362(1) Course ID:016618
Database Queries and Tables
Uses advanced database techniques used in data integration, pivot tables and charts, and queries, for the preparation of data distribution on the web. Pre-requisite: CIT 2361. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

CIT 2363(1) Course ID:016619
Advanced Database Techniques
Uses advanced database techniques used in spreadsheet layout and design, data manipulation and management, and VBA applications with Active X, for the preparation of data distribution on the web. Pre-requisite: CIT 2362. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

CIT 2481(1) Course ID:016620
Advanced Application Design
Provides students with an extensive overview of designing advanced computer applications using the Visual Basic programming language. Includes graphical user interfaces, event-driven programming, and modular programming. Pre-requisite: CIT 148 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

CIT 2482(1) Course ID:016621
Programming & Code Apps
Provides students with an extensive overview of designing advanced computer applications using the Visual Basic programming language. Includes object-oriented programming and advanced data types and structures. Pre-requisite: CIT 2481 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

CIT 2483(1) Course ID:016622
Validation and Processing
Provides students with an extensive overview of designing advanced computer applications using the Visual Basic programming language. Includes input validation, error-handling, and file and database processing. Pre-requisite: CIT 2482 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

CIT 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).

Components: Lecture

CIT 2511(1) Course ID:017215
Social Media Awareness
Provides students with skills, knowledge, and experience with social media awareness. Examines exposure, influence, engagement, brand awareness, metrics, and the crowdroom concept. Examines customer services. Pre-requisite: CIT 151 or Consent of Instructor. Lecture: 1 credit hour (15 contact hours).

Components: Lecture

CIT 2512(1) Course ID:017216
Social Media Measurements
Provides students with skills, knowledge, and experience with social media measurements. Examines media leads, types of leads, strategy, content, niche markets, scoring leads, and web analytics. Examines measurement technologies. Pre-requisite: CIT 2511 or Consent of Instructor. Lecture: 1 credit hour (15 contact hours).

Components: Lecture

CIT 2513(1) Course ID:017217
Web Based Concepts and Tools
Provides students with skills, knowledge, and experience with web-based concepts and tools. Examines search-engine optimization, audience analysis, and data mining. Pre-requisite: CIT 2512 or Instructor Consent. Lecture: 1 credit hour (15 contact hours).

Components: Lecture

CIT 2531(1) Course ID:016344
Web Servers and Applications
Provides students with the knowledge and skills to design and develop client-side and server-side applications for data driven web sites. Includes development of skills related to the installation and configuration of web servers. Pre-requisite: CIT 150 AND CIT 170 AND Approved Level Programming Language OR Consent of Instructor. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

CIT 2532(1) Course ID:016345
Databases and E-Commerce
Includes the study of databases and web servers in e-commerce, transaction processing, and web scripting. Emphasizes designing and developing a functional e-commerce supporting database for a dynamic web site. Pre-requisite: CIT 2531. Lecture: 1 credit (15 contact hours).

Components: Lecture

CIT 2533(1) Course ID:016346
Integrated Web Databases
Provides students with the knowledge and skills to design, develop, and evaluate an integrated web database application. Includes the creation of a functional database driven web site. Pre-requisite: CIT 2532. Lecture: 1 credit (15 contact hours).

Components: Lecture

CIT 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

Java Type Theory and Classes
Provides students with an extensive overview of designing and developing advanced object-oriented applications using the Java programming language. Includes polymorphism, inheritance, and recursion. Pre-requisite: CIT 2491 or Consent of Instructor. Lecture: 1 credit (15 contact hours).

Components: Lecture

Mobile Apps & Adv. Functions
Provides students with an extensive overview of designing and developing advanced object-oriented applications using the Java programming language. Includes mobile computing and other advanced topics. Pre-requisite: CIT 2492 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
CIT 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 232) OR Consent of Instructor. 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 Web client applications using the Visual Basic programming language. Includes distributed applications. Pre-requisite: CIT 2782 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

CIT 2841(0.6) Course ID:007040
Computer Forensics Overview
Provides a computer forensics overview and presents concepts about forensics investigations. Pre-requisite: CIT 160 or consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 2842(0.4) Course ID:007041
Forensics Lab Setup
Provides concepts and skills for setting a computer forensics lab and data acquisition. Pre-requisite: CIT 2841 OR Consent of Instructor. Lecture: 0.4 credits (6 contact hours).
Components: Lecture

CIT 2843(1) Course ID:007042
Digital Evidence Procurement
Provides basic knowledge on methods and processes for collection and analyzing digital evidence. Pre-requisite: CIT 2842 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 2844(1) Course ID:007043
Investigations and Reporting
Provides basic knowledge on methods and processes for investigations and reporting. Pre-requisite: CIT 2843 OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 2881(1) Course ID:007103
Network Security Basics
Identifies importance of computer ethics in relation to hacking and defending against computer and network threats. Pre-requisite: (CIT 180 AND Level 1 Network Technologies Specialization Sequence) OR Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

CIT 2882(1) Course ID:007104
Network Attacks & Lab
Provides students with the knowledge and skills to defend against a variety of computer and network attacks. Focuses on the offensive techniques used to launch attacks. Pre-requisite: CIT 2881 OR Consent of Instructor. Lecture: 0.5 credits (7.5 contact hours). Lab: 0.5 credit (15 contact hours).
Components: Laboratory, Lecture

CIT 2883(1) Course ID:007105
Network Vulnerability & Lab
Provides students with the knowledge and skills necessary to identify and proactively defend against 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 C IT project. Pre-requisite: CIT 2911 OR Consent of Instructor. Lecture: 0.8 credits (12 contact hours).
Components: Lecture

CIT 2913(0.6) Course ID:007108
Project Implementation
 Applies acquired techniques, knowledge, and skills to successfully implement a CIT project. Pre-requisite: CIT 2912 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CIT 2914(0.6) Course ID:007109
Project Evaluation
Prepares students to develop and present key project management and system analysis deliverables in a portfolio including evaluation of a project. Enhances soft skills for employability. Pre-requisite: CIT 2913 OR Consent of Instructor. Lecture: 0.6 credits (9 contact hours).
Components: Lecture

CLA Classical Languages and Literature
CLA 131(3) Course ID:000274
Medical Terminology from Greek and Latin
Latin and Greek roots, prefixes, and suffixes as found in medical terminology. Primarily for pre-medical, pre-dental, pre-nursing, and pre-veterinary students, but others will be admitted for help in vocabulary building. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other

CMM Comp Manufacturing & Machining
CMM 110(3) Course ID:000182
Fundamentals of Machine Tools - A
Provides the basic principles needed for a solid foundation in machine tool technology. Covers shop safety, bench work, machine operations, and tool shop. Pre-requisite: CIT 110 with a grade of C or greater) or Consent of Instructor. Lecture: 3.0 credits (90 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

CMM 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, machine operations, and tool shop. Pre-requisite: (CMM 110 with a grade of C or greater) or Consent of Instructor. Lecture: 3.0 credits (90 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

CMM 114(6) Course ID:000184
Fundamentals of Machine Tools
Provides the skills and knowledge that is needed to progress through the machine tool program. Includes safety and bench work. Introduces the basic power equipment and machine tools that are used in the machining trades which include: drill presses, power saws, measurement instruments, mills and lathes. Lecture: 1.0 credits (15 contact hours). Lab: 5.0 credits (150 contact hours/30:1 ratio).
Components: Laboratory, Lecture
Attributes: Technical

CMM 118(2) Course ID: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 contact hours).
Components: Lecture
Attributes: Technical

CMM 120(3) Course ID:000186
Applied Machining I
Consists of intermediate level skills using machining and surface grinders. Includes the selection of grinding wheels. Pre-requisite: (CMM 110 and 112) or (CMM 114 with a grade of C or greater) or Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours/30:1 ratio).
Components: Laboratory, Lecture
Attributes: Technical

CMM 122(3) Course ID:000187
Applied Machining II
Carries the student to higher levels in the operation of machine tools. Pre-requisite: (CMM 120 with a grade of C or greater) or Consent of Instructor. Lab: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical
CMM 124(6) Course ID:001818
Applied Machining
Allows the student to begin performing skills that will combine the use of different types of machine and begin to give them a complete picture of the machine tool career. Pre-requisite: ((CMM 110 and CMM 112) or CMM 114) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 6.0 credits (165 contact hours). Components: Laboratory, Lecture Attributes: Technical

CMM 130(3) Course ID:001819
Manual Programming
Introduces the student to CNC codes and programming, set-up and operation of CNC machine tools. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours/30:1 ratio). Components: Laboratory, Lecture Attributes: Technical

CMM 132(3) Course ID:001820
CAD/CAM/CNC
Introduces the student to CAD/CAM/CNC systems which include CAM software. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours/30:1 ratio). Components: Laboratory, Lecture Attributes: Technical

CMM 134(4) Course ID:001821
Manual Programming CAD/CAM/CNC
Introduces the student to CAD/CAM/CNC systems, CNC format, the Cartesian Coordinate System, CNC codes and programming, set-up and operation of CNC machine tool. Pre-requisite: (CMM 110 and CMM 112) or CMM 114) with a grade of C or greater) or Consent of Instructor. Lecture: 2.0 credits (30 contact hours); Laboratory: 4.0 credits (120 contact hours/30:1 ratio). Components: Laboratory, Lecture Attributes: Technical

CMM 136(6) Course ID:002624
Intro. to Programming & CNC Machines
Introduces CAD/CAM and CNC equipment. Covers program codes and set up operations used on a variety of machine tools including technologies like waterjet. Pre-requisite: (CMM 110 and CMM 112) or CMM 114) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 6.0 credits (150 contact hours) (30:1 Ratio Lab). Components: Lecture Attributes: Technical

CMM 150(2) Course ID:005089
Shop Theory
Covers shop theory, processes, and basic concepts of machine tool applications utilized in the tool and die field. Includes areas and machine concepts: safety, measurement, layout work, bench work, saws, drills, drilling machines, mills and lathes. Lecture: 2.0 credits (30 contact hours). Components: Lecture Attributes: Technical

CMM 151(3) Course ID:005090
Machinery's Handbook and Metalurgy
Introduces the Machinery's Handbook as a reference source for solving manufacturing problems and provides a working knowledge of the principles and concepts contained in the Handbook. Explores processes involved in heat-treating steels to a specific hardness, toughness, wear capability. Covers the identification, classification, application, and processing of Tool Steels. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Technical

CMM 152(3) Course ID:005091
Jigs, Fixtures and Gaging
Introduces jigs, fixtures and work holding devices, including separate uses and principles. Applies machining processes to design jigs and fixtures. Uses print knowledge to identify part datums for gaging points. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Technical

CMM 153(3) Course ID:005092
Mold Theory
Presents mold-making including thermoplastic and thermostetting materials, compression mold, transfer mold, injection molds and mold components, the heating and cooling of molds and the methods of producing cores and cavities. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Technical

CMM 154(3) Course ID:005093
Die Theory
Presents basic die making including die sets, punch presses, die spiders, die and mold, screw and dowell holes, punches and punch blocks, die life, bending dies, pilots, die block construction, stock strippers, stock guides, progressive dies, strip stocks and secondary operations of notch, trim, and shave. Lecture: 3.0 credits (45 contact hours). Components: Lecture Attributes: Technical

CMM 210(3) Course ID:001822
Industrial Machining I
Covers the classification of metals, identification of tool steels and their applications. Requires the student to perform advanced milling machine operations that simulate industry standards. Pre-requisite: (CMM 122 or 124) with a grade of C or greater) or Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours/30:1 ratio). Components: Laboratory, Lecture Attributes: Technical

CMM 212(3) Course ID:001823
Industrial Machining II
Permits the student to receive instruction in any area where advanced work is needed or an area where there is student interest. Pre-requisite: (CMM 210 with a grade of C or greater) or Consent of Instructor. Lab: 3.0 credits (90 contact hours). Components: Laboratory Attributes: Technical

CMM 214(6) Course ID:001824
Industrial Machining
Covers the classification of metals, identification of tool steels and their applications. Requires the student to perform advanced milling machine operations that simulate industry standards. Includes special projects in this course so the student will receive instruction in a specific area. Pre-requisite: (CMM 122 or CMM 124) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 6.0 credits (165 contact hours). Components: Lecture Attributes: Technical

CMM 218(8) Course ID:005530
Advanced Machining Techniques for Manufacturing
Allows for construction of sinker electrodes in the production of die and mold forms. Includes wire electrodischarge machines (edm) machining of die sections, punch reamers, stripper plates, punch forms and use of cylindrical grinder ID and OD and angular grinding on die and mold components. Pre-requisite: CMM 216 with a grade of C or greater. Lecture: 2.0 credits (30 contact hours); Laboratory: 6.0 credits (180 contact hours). Components: Laboratory, Lecture Attributes: Technical

CMM 220(4) Course ID:001825
Advanced Industrial Machining I
Allows for construction of electrodes and the production of parts by the use of an Electrical Discharge machine. (National Standards require EDM and cylindrical grinder training. Colleges lacking this equipment can only present theory. KCTCS is presently trying to acquire EDM and cylindrical. Pre-requisite: (CMM 212 or CMM 214) with a grade of C or greater) or Consent of Instructor. Lecture: 4.0 credits (120 contact hours/30:1 ratio). Components: Laboratory Attributes: Technical

CMM 222(2) Course ID:001826
Advanced Industrial Machining II
Introduces students to a higher level of industrial standards by exposing them to additional tasks using a cylindrical grinder. **National Standards require EDM and cylindrical grinder training. Those programs lacking this equipment can only present theory. KTCCS is presently trying to acquire EDM and cylindrical. Pre-requisite: (CMM 212 or CMM 214 with a Grade of C or greater) or Consent of Instructor. Lab: 2.0 credits (60 contact hours/30:1 ratio). Components: Laboratory Attributes: Technical

CMM 224(6) Course ID:001827
Advanced Industrial Machining
Designed to allow for the construction of electrodes and the production of parts by the use of an Electronic Discharge Machine (EDM), cylindrical grinder, and other type of grinders. **National Standards require EDM and cylindrical grinder training. Colleges lacking this equipment can only present theory. KTCCS is presently trying to acquire EDM and cylindrical grinders. Pre-requisite: (CMM 134 and (CMM 212 or CMM 214) with a grade of C or greater) or Consent of Instructor. Laboratory: 6.0 credits (180 contact hours or 270 Clinical Contact). Components: Laboratory Attributes: Technical

CMM 230(6) Course ID:001828
Instructor Consent Required
Conversational Programming
Introduces the student to conversational programming of CNC machine tools. Pre-requisite: Consent of Instructor. Lecture/Lab: 6.0 credits (150 contact hours). Components: Lecture Attributes: Technical

CMM 234(6) Course ID:006244
CNC Machines & Coding Practices
Introduces the student to conversational programming of CNC machine tools. Pre-requisite: Consent of Instructor. Lecture/Lab: 6.0 credits (150 contact hours). (30:1 Ratio Lab). Components: Lecture Attributes: Technical

CMM 240(6) Course ID:001829
Introduction to 3-D Programming
Introduces 3-D Programming using CAM systems to effect engineering changes that enhance productivity. Uses CAM system to create and produce complex 3-D parts. Pre-requisite: ((CMM 130 and CMM 132) or (CMM 134 or CMM 138) with a grade of C or greater) or Consent of Instructor. Lecture/Lab: 6.0 credits (150 contact hours). (30:1 Ratio Lab). Components: Lecture Attributes: Technical

CMM 244(6) Course ID:006245
Advanced Programming/Setup Practices
Uses CAM systems to effect engineering changes that enhance productivity to create and produce complex shapes on the CNC mill, lathe, EDM and water jet machines. Pre-requisite: ((CMM 2301 and CMM 2302)) or (CMM 230 with a grade of C or greater) or consent of instructor. Lecture/Lab: 6.0 credits (150 contact hours). Components: Lecture Attributes: Technical

CMM 298(1) Course ID:001830
Instructor Consent Required Practicum
Provides supervised on-the-job work experience related to the student's educational objectives. (Students participating in the Practicum do not receive compensation.) Pre-requisite: Permission of the Instructor. Practicum: 1.0 credit (75 contact hours). Components: Practicum Attributes: Technical
CMS 299(1) Course ID: 001831
Instructor Consent Required
Cooperative Education Program
Provides supervised on-the-job work experience related to the student’s educational objectives. For students participating in the coop, the student must receive compensation. Pre-requisite: Permission of Instructor. Lab: 1.0 credit (75 contact hours).
Components: Co-Op
Attributes: Technical

CMS 2301(3) Course ID: 005085
Introduction to Conversational Programming
Introduces students to conversational programming guidelines which will include program preparation, conversational input, and minor editing. Pre-requisite: Consent of Instructor. Lab: 2.0 credits (60 contact hours).
Components: Lecture

CMS 2302(3) Course ID: 005086
Conversational Editing and Subroutines
Introduces students to performing editing routines, to subroutines, and to programs that contain loops. Requires students who interpret error messages from the control. Pre-requisite: CMM 2301 or Consent of Instructor. Lab: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Lecture

CMS 2401(3) Course ID: 005087
Introduction to 3D Code Sequencing and Tool Path Production
Introduces students to creation of 3-D models and uses and allows use of those models to be used in creation of tool paths for CNC machining tools. Pre-requisite: (CMM 130 and CMM 132) or (CMM 134 or CMM 136) and (CMM 2401) with a Grade of C or greater) or Consent of Instructor. Lab: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Lecture

CMS 2402(3) Course ID: 005088
Advanced 3D Code Sequencing and Macro Systems
Introduces 3-D Programming using CAM systems to effect engineering changes that enhance productivity. Uses the CAM system to create and produce complex 3-D parts. Pre-requisite: (CMM 130 and CMM 132) or (CMM 134 or CMM 136) and (CMM 2401) with A Grade of C or greater). or Consent of Instructor. Lab: 1.0 credit (15 contact hours). Lab: 2.0 credits (60 contact hours).
Components: Lecture

COM 101(3) Course ID: 000310
Introduction to Communications
Introduces the process of communication as a critical element in human interaction and in society. Enhances effective communication and informed use of the mass media. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science

COM 181(3) Course ID: 000311
Basic Public Speaking
Applies the basic principles and techniques in research, organization, and delivery of speeches for informative and persuasive speaking purposes. Provides practical platform experience in developing speaking abilities to enable the student to communicate orally in clear, coherent language appropriate to the purpose, occasion, and audience. Pre-requisite: Current KCTCS placement scores for college level reading and writing or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: OC - Oral Communication
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Attributes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>COS 107(14)</td>
<td>Student Teaching I</td>
<td>Technical</td>
<td>Introduces teaching methods used in training cosmetology, esthetics, and nail technology students. Demonstrates teaching methods of theory, media use, and testing methods.</td>
</tr>
<tr>
<td>COS 108(6)</td>
<td>Cosmetology I Theory</td>
<td>Technical</td>
<td>Identifies abilities and behaviors for successful Cosmetologist. Describes Kentucky Statutes and regulations, safety, bacteriology, sanitation, infection control, basic first aid, structure of the hair and nails.</td>
</tr>
<tr>
<td>COS 109(6)</td>
<td>Cosmetology I Practical Application</td>
<td>Technical</td>
<td>Demonstrates basic hair, nail and skin care services utilizing safety precautions, sanitation and infection control procedures.</td>
</tr>
<tr>
<td>COS 114(14)</td>
<td>Cosmetology I</td>
<td>General, Technical</td>
<td>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.</td>
</tr>
<tr>
<td>COS 118(5)</td>
<td>Cosmetology II Technical Application</td>
<td>Technical</td>
<td>Applies the chemical application techniques to skin, hair and nails (natural and artificial) and artificial.</td>
</tr>
<tr>
<td>COS 127(14)</td>
<td>Nail Technology</td>
<td>Technical</td>
<td>Expands teaching methods used in training cosmetology, esthetics, and nail technology students. Demonstrates advanced teaching methods of theory, media use, and testing methods.</td>
</tr>
</tbody>
</table>

**Components:** Lecture, Laboratory, Attributes: Technical
Cosmetology I
Course ID: 017367
Esthetics I
Covers the history of esthetics, today's career opportunities, and professional image. Includes Kentucky Statutes and Regulations, analysis of skin types for facial products, massage techniques, and hair removal. Provides guidelines that prevent the contamination of products, implements, and equipment for the prevention of disease. Includes the study of structure, composition, and function of the skin. Lecture: 7 credits (105 contact hours). Laboratory: 6 credits (270 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
Cosmetology II
Course ID: 017368
Esthetics II
Covers organic/inorganic chemistry and cosmetic ingredients. Focuses on facial enhancements through the use of make-up artistry and application including hair removal procedures and applications. Includes the study of skin conditions, disorders and diseases, and those treatable by the esthetician. Explains treatments related to skin and skin disorders. Covers procedures for business and management, the practice of esthetic setup, disinfection, application techniques, advanced esthetics which include peels, deep pore cleansing, clinical skin care, aroma therapy, and spa/body treatments. Includes Kentucky Board of Cosmetology statutes and regulations. Provides for the study of the functions and benefits of electrotherapy including pre- and post-operative care for physician treatments and the application of various cosmeceutical products. Pre-requisite: COS 136 or Instructor permission. Lecture: 7 credits (105 contact hours). Laboratory: 6 credits (270 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
Teaching I
Course ID: 015567
Introduces teaching methods used in training cosmetology, esthetics, and nail technology students. Demonstrates teaching methods of theory, media use, and testing methods. Develops and applies the methods used to teach the practical application of skills. Pre-requisite: Cosmetologist's License, one year work experience, and Apprentice Cosmetologists Instructor's License. Lecture: 6.0 credits (90 contact hours). Lab: 14.0 credits (420 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
Teaching II
Course ID: 015568
Expands teaching methods used in training cosmetology, esthetics, and nail technology students. Demonstrates advanced teaching methods of theory, media use, and testing methods. Develops and applies methods used to teach the practical application of skills. Provides preparatory work to prepare the apprentice instructor for the Kentucky Board of Hairdressers and Cosmetologist's instructor examination. Pre-requisite: COS 216. Lecture: 6.0 credits (90 contact hours). Lab: 14.0 contacts (420 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
Cosmetology III, 6-3
Course ID: 001215
Provides knowledge of the structure and function of the human body, including the interaction of all the body systems in maintaining homeostasis. All phases of beauty salon management are studied, including interacting with clients, co-workers and supervisors. Laboratory experience is advanced with performance expectations set at a higher level. Lecture/Laboratory: 14 credits (450 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical
Cosmetology IV, 6-4
Course ID: 001216
This course is designed for a total review of the cosmetology curriculum. A comprehensive written and practical exam is given in preparation for the State Board Licensure exam. Students implement their own judgement of procedures and solutions to be used on clients with supervision. Lecture/Laboratory: 14 credits (450 contact hours).
Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical
Cosmetology Review
Course ID: 017092
Designed as a total review of the cosmetology curriculum. A comprehensive written and practical exam is given in preparation for the State Board Licensure exam. Students implement their own judgment of procedures and solutions to be used on clients with supervision. Pre-requisite: COS 114, 116, 218 or consent of instructor. Lecture: 4 credit hours (60 contact hours) Lab: 2 credit hours (90 contact hours)
Components: Laboratory, Lecture
Attributes: Technical
Cosmetology III Theory
Course ID: 017169
Provides knowledge of the structure and function of the human body, including all the body systems. A concept of artificial hair, hair enhancements, braiding and extensions, electricity and light therapy and business skills are studied. Pre-requisite: Successful completion of COS 116 or COS 118 & COS 119. Lecture: 5 credit hours (75 contact hours).
Components: Lecture
Attributes: Technical
Cosmetology III Practical Application
Course ID: 017170
Illustrate laboratory experiences with advanced performance expectations, including interacting with clients, co-workers and supervisors. The application of general anatomy is applied in laboratory settings and the techniques of all areas relating to salon business skills. Pre-requisite: Successful completion of COS 116 or COS 118 & COS 119. Co-requisite: COS 228. Lecture: 7 contact hours (315 contact hours).
Components: Laboratory
Attributes: Technical
Cosmetology IV Theory
Course ID: 017171
Recall the comprehensive written exam in preparation for the Kentucky Board Licensure exam. Pre-requisite: Successful completion of COS 218 or COS 228 & COS 229. Lecture: 6 credit hours (90 contact hours).
Components: Lecture
Attributes: Technical
Cosmetology IV Practical Application
Course ID: 017172
Demonstrate the comprehensive practical exam in preparation for Kentucky Board Licensure exam. Pre-requisite: Successful completion of COS 218 or COS 228 & COS 229. Co-requisite: COS 238. Laboratory: 6 credit hour (270 contact hours).
Components: Laboratory
Attributes: Technical
Introduction to Cosmetology
Course ID: 004996
Provides design elements and principles of hairstyling. Lecture: 1 credit (15 contact hours). Laboratory: 2 credits (90 contact hours).
Components: Laboratory, Lecture
Cosmetology Skills A
Course ID: 004997
Focus on developing design elements of hair. Laboratory: 1 credit (45 contact hours).
Components: Laboratory
Hair Structure, Disorders and Diseases
Course ID: 004998
Focuses on the structure, diseases, and disorders of hair. Lecture: 1 credit (15 contact hours).
Components: Lecture
Skin, Structure, Disorders and Diseases
Course ID: 005001
Focuses on skin structure, diseases and disorders. Lecture: 1 credit (15 contact hours).
Components: Lecture
Chemical Services
Course ID: 005003
Basic chemical services. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (90 contact hours).
Components: Laboratory, Lecture
Massage Techniques
Course ID: 005004
Study of massage techniques. Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (90 contact hours).
Components: Laboratory, Lecture
Cosmetic Techniques Lab
Course ID: 005005
Provides an opportunity to apply chemical services. Focuses on perms, color application and straightening of hair. Laboratory: 1 credit (45 contact hours).
Components: Laboratory
Electricity & Light Therapy for Cosmetology
Course ID: 005006
Study of electricity and light therapy. Lecture: 1 credit (15 contact hours).
Components: Lecture
Intermediate Hair Design Lab
Course ID: 005007
Continues the application of hair design theory and skills. Laboratory: 1 credit (45 contact hours).
Components: Laboratory
Facials
Course ID: 005008
Theory of facials. Lecture: 1 credit (15 contact hours).
Components: Lecture
Makeup and Hair Removal
Course ID: 005009
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.  
Components: Laboratory, Lecture  
Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (90 contact hours).

COS 2182(3)  
Course ID: 005011  
Anatomy for Cosmetology II  
Study of the interaction of all body systems and the maintenance of homeostasis. Application of these studies in cosmetology services.  
Pre-requisite: (COS 1161 and COS 1162 and COS 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.  
Components: Laboratory, Lecture  
Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (90 contact hours).

COS 2183(3)  
Course ID: 005012  
Salon Management  
The study and application of all phases of salon management.  
Components: Laboratory, Lecture  
Lecture: 1 credit (15 contact hours); Laboratory: 2 credits (90 contact hours).

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.  
Components: Laboratory  
Lecture: 1 credit (15 contact hours).

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.  
Components: Lecture  
Lecture: 1 contact (15 hours).

COS 2187(1)  
Course ID: 005016  
Intermediate Hair Shaping  
Hair shaping techniques for the intermediate practitioner.  
Components: Lecture  
Lecture: 1 contact (15 hours).

COS 2188(1)  
Course ID: 005017  
Cosmetology Trends and Issues  
Trends and issues of cosmetology are covered.  
Components: Lecture  
Lecture: 1 contact (15 hours).

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  
Lecture: 1 contact (15 hours).

CRI  
Criminal Justice  
CRI 100(3)  
Course ID: 004191  
Introduction to Criminal Justice  
Provides an introduction to the philosophical and historical background of agencies of the criminal justice system, 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).  
Components: Lecture  
Attributes: Technical  
Lecture: 3.0 credit hours (45 contact hours).

CRI 102(3)  
Course ID: 004192  
Introduction to Corrections  
Provides an introduction to the development of correctional systems, and the processes, procedures, and issues of current correctional systems, both juvenile and adult.  
Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090).  
Components: Lecture  
Attributes: Technical  
Lecture: 3.0 credit hours (45 contact hours).

CRI 107(1)  
Course ID: 004194  
Introduction to Firearms  
Provides a working knowledge of the use, care, and safety of firearms. The course is of nomenclature design and it will be at the discretion of each individual college whether live ammunition will be utilized by the students and faculty to demonstrate the firing of weapons and marksmanship practice.  
Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090).  
Components: Lecture  
Attributes: Technical  
Lecture: 1.0 credit (15 contact hours).

CRI 108(4)  
Course ID: 007357  
Advanced Firearms and Less Than Lethal Weapons  
Provides an advanced working knowledge of the use, care, safety, and legal application of firearms and less than lethal weapons. Includes live fire with the use of pistol, shotgun/rifle, and less than lethal weapons.  
Components: Lecture  
Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (69 contact hours).

CRI 110(3)  
Course ID: 004195  
Principles of Asset Protection  
Provides an introductory understanding of private security procedures.  
Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090).  
Components: Lecture, Laboratory  
Attributes: Technical  
Lecture: 3.0 credit hours (45 contact hours), Laboratory: 1 credit (15 contact hours).

CRI 201(3)  
Course ID: 000899  
Introduction to Criminalistics  
Provides a basic knowledge of crime scene protection, collection, preservation, and identification of evidence, including proper search, dusting latent prints, casting fingerprint classification, and use of crime laboratory in crime detection and prosecution.  
Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090).  
Components: Lecture  
Attributes: Technical  
Lecture: 3.0 credits (45 contact hours).

CRI 202(3)  
Course ID: 004196  
Issues and Ethics in Criminal Justice  
Provides an understanding of the issues and ethical dilemmas confronting practitioners within the criminal justice system.  
Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090).  
Components: Lecture  
Attributes: Technical  
Lecture: 3.0 credits (45 contact hours).

CRI 203(3)  
Course ID: 004197  
Community Corrections: Probations & Parole  
Provides an in-depth study of the history and current processes and procedures of probation, parole, and intermediate sanctions that makes up community corrections.  
Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090).  
Components: Lecture  
Attributes: Technical  
Lecture: 3.0 credits (45 contact hours).

CRI 204(3)  
Course ID: 004198  
Criminal Investigations  
Provides the fundamentals of crime scene investigations, which includes searching and recording of the scene, collection and preservation of physical evidence, interviews and interrogation of victims, witnesses, and suspects, report writing and case preparation.  
Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090).  
Components: Lecture  
Attributes: Technical  
Lecture: 3.0 credits (45 contact hours).

CRI 208(3)  
Course ID: 004199  
Delinquency and the Juvenile Justice System  
Provides an introduction of the origins and theories associated with juvenile delinquency, and a comprehensive analysis of environmental issues that influence delinquency, plus a thorough overview of the juvenile justice system processes.  
Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090).  
Components: Lecture  
Attributes: Technical  
Lecture: 3.0 credits (45 contact hours).

CRI 210(3)  
Course ID: 004200  
Physical Security Technology & Systems  
Introduces facility security with the use of environmental design and integrated electronic technology (cameras, monitors, and alarms).  
Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090).  
Components: Lecture  
Attributes: Technical  
Lecture: 3.0 credits (45 contact hours).

CRI 211(3)  
Course ID: 004201  
Liability & Legal Issues  
Provides an overview of legal aspects of security, which includes but is not limited to civil and criminal law, liability of asset protection, use of force, false imprisonment, negligent security, and invasion of privacy.  
Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090) AND (CRI 100 or Consent of Instructor).  
Components: Lecture  
Attributes: Technical  
Lecture: 3.0 credits (45 contact hours).

CRI 215(3)  
Course ID: 004202  
Introduction to Law Enforcement  
Provides an introduction to the study of law enforcement.  
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).  
Components: Lecture  
Attributes: Technical  
Lecture: 3.0 credits (45 contact hours).

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).  
Components: Lecture  
Attributes: Technical  
Lecture: 3.0 credits (45 contact hours).
CRI 217(3)  Course ID:004204

**Criminal Procedures**

Provides an overview of the different criminal procedural laws by examining the specific Amendments that outline the guidelines of the administration of substantive laws. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Same As Offering: CRI 217

Attributes: Technical

CRI 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 CRI 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). 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. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Technical

CRI 224(4)  Course ID:007359

**Basic Traffic Collision Investigation**

Introduces basic vehicle collision investigation, from a law enforcement perspective, and entails evidence and investigation techniques and mathematical calculations. Pre-requisite: CRJ 204 and MAT 110 and (Current placement scores for RDG 030 or higher or completion of RDG 020) and (Current placement for ENC 091 or higher or completion of ENC 090). Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).

Components: Laboratory, Lecture

Attributes: Technical

CRI 225(4)  Course ID:007360

**Driving and Traffic Enforcement for Law Enforcement**

Provides an understanding of vehicle offenses, tactical police driving, and traffic stops, in a scenario-based environment that demonstrates applied skills. Pre-requisite: CRJ 215 and (Current placement scores for RDG 030 or higher or completion of RDG 020) and (Current placement 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

Attributes: Technical

CRI 230(3)  Course ID:006233

**Criminal Justice Courtroom Procedures**

Covers research, study, and discussion of current and emerging topics, issues, and trends in courtroom procedures. Includes basic courtroom procedures and the roles of the key personnel within the courtroom setting. Includes practical preparation procedures for witness presentation of testimony. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Technical

CRI 231(3)  Course ID:006234

**Legal Aspects of Corrections**

Covers research, study, and discussion of current and emerging topics, issues, and trends in corrections. Introduces legal aspects of corrections. Includes a historical perspective, as well as applicable case law, in the areas of corrections operations, practices, and procedures. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Technical

CRI 240(3)  Course ID:006102

**Introduction to Corporate & Industrial Security**

Includes research, study, and discussion of current and emerging topics, issues, and trends in corporate and industrial security. Covers basic corporate and industrial security procedures and the roles of the key personnel within the private security 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**

Includes research, study, and discussion of current and emerging topics, issues and trends in business and industrial fraud. Covers basic concepts of occupational fraud and abuse and the roles of the key personnel within the criminal justice system. Includes practical procedures for defining, identifying, and investigating business and industrial fraud. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Technical

CRI 277(3)  Course ID:006804

**Introduction to Criminology**

Provides an introduction to the understanding of criminal behavior by focusing on crime trends and patterns, the amount of crime, and the theories of crime. Theories of crime will include the biological, psychological, sociological, and integrated explanations of behavior. Theories of crime will be utilized to address the procedures and administration of criminal justice in society. Pre-requisite: If yes, list: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Technical

CRI 278(3)  Course ID:005781

**Terrorism and Political Violence**

Provides an introduction to the study of terrorism and terrorist organizations. Introduces the student to the diverse definitions of terrorism and the social and political consequences of varying definitions, behavioral aspects of terrorist and the various justifications for terrorist activities. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Technical

CRI 290(3)  Course ID:004206

**Internship in Criminal Justice**

Allows the criminal justice student the opportunity to broaden their educational experience through observation and work assignments at a recognized criminal justice agency. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090) AND Sophomore Standing and completion of at least 12 semester hours of Criminal Justice work. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Technical

CRI 295(1)  Course ID:015650

**Criminal Justice Capstone**

Serves as the capstone course for the Criminal Justice degree program. Integrates prior learning outcomes into a single integrated learning experience. Includes preparation for and completion of the post exit exam that all program graduates must complete. Pre-requisite: (CRJ 100 and CRJ 202 and CRJ 204 and CRJ 215 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 problems, ways of recognizing mental health issues when dealing with offenders, and proven psychological techniques for calming problem situations thereby creating a safer and more efficient solution. Pre-requisite: CRJ 100, PSY 110. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: Technical

CRI 299(1 - 3)  Course ID:004207

**Instructor Consent Required**

Selected Topics in Criminal Justice

Introduces specialized topics in the field of criminal justice to meet current trends and investigations of contemporary topics in the discipline. The topics of the course and the number of credit hours determined are at the discretion of the instructor and college providing the course. This course may be repeated to a maximum of 6 credit hours. Pre-requisite: (Current placement scores for RDG 30 or higher or completion of RDG 020) and (Current placement scores for ENC 091 or higher or completion of ENC 090). Lecture: 1.0 - 3.0 credits (15 - 45 contact hours).

Components: Lecture

Attributes: Technical
Instructor Consent Required
Components: Co-op
Attributes: Technical

**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

**Instructor Consent Required Advanced Practicum**
Provides supervised on-the-job work experience related to the students’ educational objectives. (Students participating in the practicum do not receive compensation.) Pre-requisite: Consent of Instructor. Independent Study: 2.0 credits (150 contact hours).

Components: Independent Study
Attributes: Technical

**Instructor Consent Required**
Provides supervised on-the-job work experience related to the students’ educational objectives. (Students participating in the practicum do receive compensation.) Pre-requisite: Consent of Instructor. Independent Study: 2.0 credits (150 contact hours).

Components: Independent Study
Attributes: Technical

**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)

**Introduction to Program Design, Abstraction, and Problem Solving**
The course covers introductory object-oriented problem solving, design, and programming engineering. Fundamentals elements of data structures and algorithm design will be addressed. An equally balanced effort will be devoted to the three main threads in the course: concepts, programming language skills, and runtimes 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)

**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)

**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)

**Systems Programming**
This course provides an introduction to computer systems and explores computer architecture, operating systems, and networks from a programmer’s perspective. The course also introduces advanced programming and debugging tools. Topics include hardware instruction sets, machine language and C language program representations, linking/loading, operating systems (process management, scheduling, memory management, interprocess communication, and file systems), network programming (socket programming and web protocols), and common security attacks and solutions. Pre-requisites: EE280 and CS216. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: University Course (University of Kentucky)

**Discrete Mathematics**

Components: Lecture
Attributes: University Course (University of Kentucky)
**CUL Culinary Arts**

**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, sauces and soups; basic principles of cooking; baking; kitchen operations, and a study of breakfast food. Pre-requisite or Co-requisite: (CUL 100 and CUL 200) or consent of instructor. Lecture/Lab: 4 credits (90 contact hours).

**Components:** Laboratory, Lecture

**Attributes:** Technical

**CUL 215(4)** Course ID:004214

**Basic Baking**

Applies fundamentals of baking science to the preparation of a variety of products and to learn use and care of equipment in bake shop and/or baking area. Pre-requisite or Co-requisite: CUL 100 or CUL 200 or consent of instructor. Lecture: 2.0 credits (30 contact hours), Lab: 2.0 credits (60 contact hours).

**Components:** Laboratory, Lecture

**Attributes:** Technical

**CUL 220(4)** Course ID:004215

**Advanced Baking & Pastry Arts**

Applies fundamentals of baking science to the preparation of a variety of baked products including choux paste, frozen desserts, and creams, custards, and related sauces. Emphasis will be placed on nutritional aspects of baked products and finishing techniques. Pre-requisite: CUL 215. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).

**Components:** Laboratory, Lecture

**Attributes:** Technical

**CUL 225(4)** Course ID:005137

**Professional Confection and Pastry Arts**

Finishing techniques for confections and pastries, creating decorative centerpieces, sugar artistry, and cake decorating. Fundamentals of baking science along with advanced finishing techniques. Pre-requisite: CUL 215. Lecture: 2 credits (30 contact hours); Laboratory: 2 credits (60 contact hours).

**Components:** Laboratory, Lecture

**Attributes:** Technical

**CUL 230(3)** Course ID:004216

**Basic Nutrition**

Describes the characteristics, functions, and food sources of the major nutrients and how to maximize nutrient retention in food preparation and storage. Applies the principles of nutrient needs throughout the life cycle through menu planning and preparation for specialty diets. Lecture: 3 credits (45 contact hours).

**Components:** Lecture

**Attributes:** Technical

**CUL 235(4)** Course ID:017086

**Farm to Table**

Introduces local, seasonal, and sustainable cooking emphasizing the management of fruit, grain, and vegetable production while applying various cooking techniques. Utilize fresh ingredients in the preparation of appetizers, salads, entrees, and desserts. Incorporates canning and preserving methods for when fresh ingredients are out of season. Pre-requisite: CUL 100, CUL 125, CUL 211, CUL 215, OR Instructor Approval Lecture: 2 credit hours (30 contact hours) Lab: 2 credit hours (60 contact hours) Credits: 4 (90-120 contact hours).

**Components:** Laboratory, Lecture

**Attributes:** Technical

**CUL 240(4)** Course ID:004217

**Meats, Seafood, & Poultry**

This course focuses on the identification of various cooking techniques for and the preparation of meats, seafood, and poultry. Pre-requisite: CUL 100 and CUL 200. Pre-requisite or Co-requisite: CUL 211 or consent of the instructor. Lecture/Lab: 4.0 credits (90 contact hours).

**Components:** Laboratory, Lecture

**Attributes:** Technical

**CUL 250(4)** Course ID:004211

**Garde Manger**

This course includes the production of hot and cold sandwiches, hors d’oeuvre, canapes and salads. Garnishing techniques along with cold food production are discussed. Decorative skills as related to buffets and exhibits are explored. Co-requisite: CUL 100 or Consent of instructor. Lecture/Lab: 4 credits (90 contact hours).

**Components:** Laboratory, Lecture

**Attributes:** Technical

**CUL 260(4)** Course ID:004218

**International & Classical Cuisine**

This course focuses on the study and preparation of international and classical cuisine. Pre-requisite: CUL 100 and CUL 200. Pre-requisite or Co-requisite: CUL 111 and CUL 211 and CUL 215 and CUL 240) or consent of instructor. Lecture/Lab: 4.0 credits (90 contact hours).

**Components:** Laboratory, Lecture

**Attributes:** Technical

**CUL 270(3)** Course ID:004219

**Human Relations Management**

This course provides information necessary for the transition from student to a supervisory role in the Food and Beverage industry. Styles of leadership and skill development in human relations and personnel management are also covered. Lecture: 3 credits (45 contact hours).

**Components:** Lecture

**Attributes:** Technical

**CUL 280(3)** Course ID:004221

**Cost and Control**

Provides students with the opportunity to perform business and math skills using mathematical functions related to food service operations in the areas of cost, control, purchasing and receiving. Pre-requisite: A mathematics placement score above the score range for MAT 065 or successful completion of the prescribed developmental course(s) or consent of the instructor. Lecture: 3.0 credits (45 contact hours).

**Components:** Lecture

**Attributes:** Technical

**CUL 285(3)** Course ID:004222

**Front of the House**

Focuses on the operations in front of the house management including service techniques and dining room service, beverage service (non-alcoholic and alcoholic beverages), POS systems, and menu planning. Lecture: 3.0 credits (45 contact hours).

**Components:** Lecture

**Attributes:** Technical

**CUL 290(4)** Course ID:004223

**Front of the House-Catering**

Focuses on the operations in front of the house management including service techniques and dining room service, beverage service (non-alcoholic and alcoholic beverages), POS systems, and menu planning. Pre-requisite: (CUL 100 and CUL 111 and CUL 200 and CUL 211 and CUL 215 and CUL 240) or consent of the instructor. Lecture/Laboratory: 4.0 credits (90 contact hours).

**Components:** Lecture

**Attributes:** Technical

**CUL 295(3)** Course ID:005138

**Doing Business as a Personal Chef**

A general overview of the business aspects of starting and operating a personal chef service. Pre-requisite: All Technical Core Courses as outlined in the current Culinary Arts Curriculum. Lecture: 3 credits (45 contact hours).

**Components:** Lecture

**Attributes:** Technical

**CUL 297(1 - 6)** Course ID:004224

**Selected Topics in Culinary Arts**

Various culinary arts topics, issues, and trends will be addressed. Topics may vary from semester to semester at the discretion of the instructors; courses may be repeated with different topics to a maximum of six credits. Lecture: varies by topic; Lab: varies by topic. Pre-requisite: Consent of instructor.

**Components:** Laboratory, Lecture

**Attributes:** Technical

**CUL 298(2 - 3)** Course ID:004225

**Culinary Arts Practicum Experience**

Practicum enhances the student’s transition from class to the work of work by providing unpaid work experience in a simulated or on-campus setting that utilizes the skills required to achieve the student’s occupational goal. Pre-requisite: Consent of instructor. Practicum: 2.0 - 3.0 credits (120-180 contact hours)

**Components:** Practicum

**Attributes:** Technical

**CUL 299(2 - 3)** Course ID:004226

**Culinary Arts Cooperative Education Experience**

Enhances the student’s transition from class to the workforce by providing a paid work experience in a setting that utilizes the skills required to achieve the student’s occupational goal. Pre-requisite: Consent of instructor. Practicum: 2.0 -3.0 credits (120-180 contact hours).

**Components:** Practicum

**Attributes:** Technical

**CUL 1001(1)** Course ID:016347

**Culinary Industry Trends**

Provides an introduction to several aspects of the food industry. Includes an overview of the history of the profession and current career opportunities and trends. Lecture: 1 credit (15 contact hours).

**Components:** Lecture

**Attributes:** Technical

**CUL 1002(1)** Course ID:016348

**Culinary Arts Terminology**

Provides an introduction to several aspects of the food industry. Introduces proper terminology for various types of equipment and cooking methods. Pre-requisite: CUL 1001. Lecture: 1 credit (15 contact hours).

**Components:** Lecture
CUL 1251(1) Course ID:016349
Food Handling Practices
Reinforce personal hygiene habits and food handling practices that protect the health of the consumer. Lecture: 1 credit (15 contact hours).

Components: Lecture

CUL 1252(1) Course ID:016350
Food Service Sanitation/Safety
Develops an understanding of the basic principles of sanitation and safety and applies them in the food service operations. Pre-requisite: CUL 1251. Lecture: 1 credit (15 contact hours).

Components: Lecture

CUL 2301(1) Course ID:016351
Food and Nutrient Sources
Describes the characteristics, functions, and food sources of the major nutrients. Lecture: 1 credit (15 contact hours).

Components: Lecture

CUL 2302(1) Course ID:016352
Menu Planning and Preparation
Describes how to maximize nutrient retention in food preparation and storage. Pre-requisite: CUL 2301. Lecture: 1 credit (15 contact hours).

Components: Lecture

CUL 2801(1) Course ID:016354
Food Service Operating Cost
Provides students with the opportunity to perform business and math skills using mathematical functions related to food service operations in the area of cost. Pre-requisite: A mathematics placement score above the score range for MAT 065 or successful completion of the prescribed developmental course(s) or consent of the instructor. Lecture: 1 credit (15 contact hours).

Components: Lecture

CUL 2802(1) Course ID:016355
Food Service Control Costs
Provides students with the opportunity to perform business and math skills using mathematical functions related to food service operations in the area of control. Pre-requisite: CUL 2801. Lecture: 1 credit (15 contact hours).

Components: Lecture

CUL 2803(1) Course ID:016356
Food Service Financial Aspects
Provides students with the opportunity to perform business and math skills using mathematical functions related to food service operations in the areas of purchasing and receiving. Pre-requisite: CUL 2802. Lecture: 1 credit (15 contact hours).

Components: Lecture

DAH 121(3) Course ID:000333
Dental Sciences
Examines oral histology and embryology, head and neck anatomy, and tooth morphology as applicable to the practice of dental assisting and dental hygiene. Pre-requisite: Admission into the Integrated Dental Assisting or Dental Hygiene Program. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

DAH 124(2) Course ID:000335
Materials In Dentistry
Examines the physical and chemical properties of dental materials with an emphasis on composition and application. Pre-requisite: Admission into the Integrated Dental Assisting or Dental Hygiene Program. Lecture: 1.5 credits (22.5 contact hours), Lab: 0.5 credit (30 contact hours).

Components: Laboratory, Lecture Attributes: Technical

DAH 131(3) Course ID:004337
Oral Radiology
Examines theory and clinical practice of oral radiographic methods. Presents history and development of x-radiation; properties and uses of x-radiation; radiation hygiene; exposing, processing and mounting of intraoral and extraoral films; and identification of radiographic anatomic landmarks. Pre-requisite: Admission into the Integrated Dental Assisting or Dental Hygiene Program. Lecture: 1.5 credits (22.5 contact hours), Lab: 0.5 credits (30 contact hours).

Components: Lecture Attributes: Technical

DAH 135(2) Course ID:000334
Oral Pathology
Examines the disciplines of general pathology and oral pathology as related to dental auxiliary function. Pre-requisite: Dental Assisting: Minimum grade of “C” in DAH 101, DAH 121, DAH 124, DAH 135, and DAS 130, Dental Hygiene: Minimum grade of “C” in DAH 101, DAH 121, DAH 124, DAH 135, and DHG 120. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

DAH 135(6) Course ID:015651
Dental Assisting I
Introduces the profession of dental assisting, history of dentistry, chairside dental assisting, dental equipment, operating room and dental specialties. Emphasizes essential dental assisting skills to prepare the student for clinical setting. Pre-requisite: Admission into the Dental Assisting Integrated program. Lecture: 2.0 (30 contact hours). Lab: 4.0 credits (120 contact hours).

Components: Laboratory, Lecture Attributes: Technical

DAH 135(2) Course ID:006812
Dental Assisting II
Continues DAH 120 concepts. Introduces student to remaining dental specialties and expanded dental assisting functions. Pre-requisite: Dental Assisting: Minimum grade of “C” in DAH 101, DAH 121, DAH 124, DAH 135, DAS 125, and DAS 130. Lecture: 1.0 credit (15 contact hours), Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture Attributes: Technical

DAH 225(2) Course ID:015652
Dental Assisting Seminar II
Provides the opportunity to discuss clinical experiences and prepare to sit for the Dental Assisting National Board (DANB). Provides students the opportunity to further develop professional growth plan. Pre-requisite: Minimum grade of “C” in DAH 101, DAH 121, DAH 124, DAH 135, and DHG 120. Lecture: 1.0 hour credit (15 contact hours).

Components: Lecture Attributes: Technical

DAH 230(1) Course ID:0006813
Preventive Dentistry
Introduces dental biofilm and its role in dental disease. Emphasizes the role nutrition plays regarding disease initiation and progression and the methods and preventive agents utilized by the auxiliary to prevent oral disease. Pre-requisite: Dental Assisting: Minimum grade of “C” in DAH 101, DAH 121, DAH 124, DAH 135, and DAS 130. Lecture: 1.0 credit (15 contact hours), Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture Attributes: Technical

DAH 245(2) Course ID:015655
Clinical Externship
Apply and practice principles and skills acquired in the areas of chairside assisting, operative procedures, specialty procedures, laboratory procedures, business office procedures and dental radiology. Consists of observation and practice in a dental office setting with emphasis on chairside activities. Pre-requisite: Dental Assisting: Minimum grade of “C” in DAH 101, DAH 121, DAH 124, DAH 135, and DAS 130. Practicum: 5.0 credits (320 contact hours).

Components: Practicum Attributes: Technical

DHG 125(6) Course ID:015651
Dental Assisting I
Introduces the profession of dental assisting, history of dentistry, chairside dental assisting, dental equipment, operating room 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

DHG 125(2) Course ID:006812
Dental Assisting II
Continues DAH 120 concepts. Introduces student to remaining dental specialties and expanded dental assisting functions. Pre-requisite: Dental Assisting: Minimum grade of “C” in DAH 101, DAH 121, DAH 124, DAH 135, and DHG 120. Lecture: 1.5 credits (22.5 contact hours), Lab: 0.5 credits (60 contact hours), Clinical: 1.0 credit (120 contact hours).

Components: Clinical, Laboratory, Lecture Attributes: Technical

DHG 125(3) Course ID:000337
Pre-Clinical Dental Hygiene
Stresses basic assessment and clinical skills, related theory, and professional role and responsibilities of the dental hygienist as a member of the dental health team. Pre-requisite: Admission into the Dental Hygiene Integrated Program. Lecture: 2.0 credits (30 contact hours), Lab: 1.0 credit (120 contact hours).

Components: Laboratory, Lecture Attributes: Technical

DHG 130(3) Course ID:000338
Clinical Dental Hygiene I
Focuses on preparing the student to provide patient treatment that includes preventive and therapeutic procedures to maintain oral health and assist the patient in achieving oral health goals. Pre-requisite: Minimum grade of “C” in DAH 101, DAH 121, DAH 124, DAH 135, and DHG 120. Lecture: 1.5 credits (22.5 contact hours), Lab: 0.5 credits (60 contact hours), Clinical: 1.0 credit (120 contact hours).

Components: Clinical, Laboratory, Lecture Attributes: Technical

DHG 132(2) Course ID:004331
Pharmacology
Examines the disciplines of pharmacology and therapeutics as related to dental hygiene. Pre-requisite: Minimum grade of “C” in DAH 101, DAH 121, DAH 124, DAH 135, and DHG 120. Lecture: 2.0 credits (30 contact hours).

Components: Lecture Attributes: Technical

DHG 132(4) Course ID:006811
Dental Nutrition
Prepares basic principles of nutrition with emphasis on nutritional counseling in relationship to dental health, determination of patient nutritional status, and application to oral health and effects of nutritional deficiencies. Pre-requisite: Minimum grade of “C” in DAH 101, DAH 121, DAH 124, DAH 135, and DHG 120. Lecture: 2.0 credits (30 contact hours).

Components: Lecture Attributes: Technical
DHG 136(1) Course ID:000340
Periodontology
Focuses on the clinical, histological, and radiographic differences between healthy and unhealthy periodontal tissues. Pre-requisite: Minimum grade of C in DAH 101, DAH 121, DAH 124, DAH 135, and DHG 120. Lecture: 1.0 credit (15 contact hours).
Components: Lecture Attributes: Technical

DHG 220(4) Course ID:000341
Clinical Dental Hygiene II
Focuses on providing comprehensive dental hygiene care in a clinical setting while emphasizing the treatment of periodontal and special needs patients. Pre-requisite: Minimum grade of C in DAH 131, DHG 130, DHG 132, DHG 134, and DHG 136. Lecture: 2.0 credits (30 contact hours). Clinical: 2.0 credits (240 contact hours).
Components: Clinical, Lecture Attributes: Technical

DHG 221(2) Course ID:004778
Local Anesthesia and Nitrous Oxide Sedation
Presents a conceptual framework and clinical skills necessary to administer local dental anesthetics and nitrous oxide sedation in accordance with state dental practice acts. Pre-requisite: Minimum grade of C in DAH 131, DHG 130, DHG 132, DHG 134, DHG 136, and current enrollment in the Dental Hygiene Integrated Program. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

DHG 230(3) Course ID:000343
Clinical Dental Hygiene III
Focuses on mastery of dental hygiene clinical skills for patient care and preparation for written and clinical board examinations. Pre-requisite: Minimum grade of C in DHG 220 and DHG 226. Lecture: 1.0 credit (12 contact hours). Clinical: 2.0 credits (240 contact hours).
Components: Clinical, Lecture Attributes: Technical

DHG 238(2) Course ID:000344
Community Dental Health Issues
Examines basic concepts in assessing community dental health needs and planning, implementing, evaluating, and presenting dental health programs to various community groups. Pre-requisite: Minimum grade of C in DHG 220 and DHG 226. Lecture: 2.0 credits (30 contact hours).
Components: Lecture Attributes: Technical

Dental Hygiene

DHP 120(4) Course ID:004859
Dental Hygiene I
Includes basic assessment and clinical skills, related theory, professional role and responsibilities of the dental hygienist as a member of the dental health team. Pre-requisite: Acceptance into the Dental Hygiene Program; Computer Literacy or equivalency; and CPR certification. BIO 137 and BIO 139 or equivalent, with a grade of "C" or better. Lecture: 2.0 credits (30 contact hours).
Components: Lecture Attributes: Technical

DHP 122(2) Course ID:006832
Dental Nutrition
Presents basic principles of nutrition with emphasis on nutritional counseling in relationship to dental health, determination of patient nutritional status, and application to oral health and effects of nutritional deficiencies. Pre-requisite: Acceptance into the Dental Hygiene Program; Computer Literacy or equivalency; and CPR certification. BIO 137 and BIO 139 or equivalent, with a grade of "C" or better. Lecture: 2.0 credits (30 contact hours).
Components: Lecture Attributes: Technical

DHP 123(2) Course ID:017369
Oral Biology
Focuses on oral histology and embryology, head and neck anatomy, and dental morphology applicable to the practice of dental hygiene. Pre-requisite: Acceptance into Dental Hygiene Program; digital literacy is defined by KCTCS or equivalent; and CPR certification. BIO 137 and BIO 139 or equivalent both with a minimum grade of C. Integrated Lecture: 1 credit (15 contact hours). Integrated Lab: 1 credit (45 contact hours).
Components: Integrated Laboratory, Integrated Lecture Attributes: Technical

DHP 124(2) Course ID:008481
Materials in Dentistry
Examines the physical and chemical properties of dental materials with an emphasis on composition and application. Pre-requisite: Acceptance into the Dental Hygiene Program; digital literacy as defined by KCTCS or equivalent; and CPR certification. BIO 137 and BIO 139 or equivalent both with a minimum grade of C. Lecture: 1.5 credits (22.5 contact hours). Laboratory: 0.5 credits (22.5 contact hours).
Components: Integrated Laboratory, Integrated Lecture Attributes: Technical

DHP 130(3) Course ID:004871
Dental Hygiene II
Focuses on preparing the student to provide patient treatment that includes preventive and therapeutic procedures to maintain oral health and assist the patient in achieving oral health goals. Pre-requisite: DHP 120, DHP 122, DHP 123, DHP 124 and (BIO 225 or BIO 226, or equivalent) all with a minimum grade of C. Lecture: 2.0 credits (30 contact hours). Clinical: 1.0 credit (120 contact hours).
Components: Clinical, Lecture Attributes: Technical

DHP 132(4) Course ID:017371
Oral Pathology and Pharmacology
Covers the disciplines of general pathology, oral pathology, pharmacology, and therapeutics as related to dental hygiene care. Pre-requisite: DHP 120, DHP 122, DHP 123, DHP 124 and (BIO 225 or 226 or equivalent) all with a minimum grade of C. Integrated Lecture: 2.5 credits (37.5 contact hours). Integrated Lab: 1.5 credits (67.5 contact hours).
Components: Integrated Laboratory, Integrated Lecture Attributes: Technical

DHP 135(3) Course ID:008463
Dental Radiology
Introduces theory and clinical practice of oral radiography. Presents the history, development, properties and uses of x-radiation. Emphasizes radiation hygiene and safety. Covers digital technology and all types of radiographic systems. Introduces radiographic anatomical landmarks and pathology seen on radiographs. Pre-requisite: DHP 120, DHP 122, DHP 123, DHP 124, and (BIO 225 or BIO 226, or equivalent) all with a minimum grade of C. Lecture: 2.5 credits (37.5 contact hours). Laboratory: 0.5 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

DHP 136(2) Course ID:004864
Periodontics I
Focuses on the study of patient care and procedures to maintain oral health and assist the patient in achieving dental health goals. Pre-requisite: DHP 120, DHP 122, DHP 123, DHP 124, and (BIO 225 or BIO 226, or equivalent) all with a minimum grade of C. Lecture: 2.0 credits (30 contact hours).
Components: Lecture Attributes: Technical

DHP 220(3) Course ID:004865
Dental Hygiene III
Focuses on the continued treatment of clinical patients. Pre-requisite: DHP 130, DHP 132, DHP 135 and DHP 136 all with a minimum grade of C. Clinical: 2.0 credits (240 contact hours). Discussion: 1.0 credit (15 contact hours).
Components: Clinical, Discussion Attributes: Technical

DHP 222(3) Course ID:005040
Special Needs Patients
Focuses on the specific oral health care needs of persons with a variety of medical, disabling or mental conditions and provides for discussion of innovative approaches to serving populations with special oral health care needs. Pre-requisite: DHP 130, DHP 132, DHP 135, and DHP 136 all with a minimum grade of C. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

DHP 226(2) Course ID:004867
Periodontics II
Focuses on the study of patient care and procedures to maintain oral health and assist the patient in achieving dental health goals. Pre-requisite: DHP 220, DHP 222, DHP 226, and DHP 229 all with a minimum grade of C. Clinical: 2.0 credits (240 contact hours). Discussion: 1.0 credit (15 contact hours).
Components: Clinical, Discussion Attributes: Technical

DHP 229(2) Course ID:004850
Local Anesthesia and Nitrous Oxide Sedation
Presents a conceptual framework and clinical skills necessary to administer local dental anesthetics and nitrous oxide sedation in accordance with Kentucky state dental practice act. Pre-requisite: DHP 130, DHP 132, DHP 135 and DHP 136 all with a minimum grade of C. Lecture: 1.25 credits (18.75 contact hours). Lab: 0.75 credit (45 contact hours).
Components: Laboratory, Lecture Attributes: Technical

DHP 230(3) Course ID:004868
Dental Hygiene IV
Focuses on comprehensive dental hygiene clinical skills utilized in treating all types of patients. Pre-requisite: DHP 220, DHP 222, DHP 226, and DHP 229 all with a minimum grade of C. Lecture: 1.0 credit (15 contact hours).
Components: Lecture Attributes: Technical

DHP 235(1) Course ID:004869
Principles of Practice
Focuses on the legal, ethical, and managerial aspects of dental hygiene practice. Pre-requisite: DHP 220, DHP 222, DHP 226, and DHP 229 all with a minimum grade of C. Lecture: 1.0 credit (15 contact hours).
Components: Lecture Attributes: Technical

DHP 238(3) Course ID:004870
Community Dental Health
Examines the assessment, planning, implementation and evaluation of community oral health needs. Pre-requisite: DHP 220, DHP 222, DHP 226, and DHP 229 all with a minimum grade of C. Clinical: 2.0 credits (240 contact hours). Discussion: 1.0 credit (15 contact hours).
Components: Laboratory, Lecture Attributes: Technical
DIT 299 (1 - 4)  Course ID:004851
Instructor Consent Required
Independent Study in Dental Hygiene
Consists of a special project or experience, approved by an instructor, provides an objective for independent study for dental hygiene technology students. This course may be repeated to a maximum of six credit hours. This is not a dental hygiene program requirement. Pre-requisite: Consent of instructor. Lecture: variable. Lab: Variable.
Components: Laboratory, Lecture
Same As Offering: DHP 299
Attributes: Technical

DIT 299 (1 - 4)  Course ID:004851
Instructor Consent Required
Independent Study in Dental Hygiene
Consists of a special project or experience, approved by an instructor, provides an objective for independent study for dental hygiene technology students. This course may be repeated to a maximum of six credit hours. This is not a dental hygiene program requirement. Pre-requisite: Consent of instructor. Lecture: variable. Lab: Variable.
Components: Laboratory, Lecture
Same As Offering: DHP 299
Attributes: Technical

DIT Diesel Technology

DIT 103(2)  Course ID:001273
Preventive Maintenance Lab
Instruction on preventive maintenance practices, scheduled procedures, documents, and D.O.T. required record system and on determining the needs for repair. Laboratory: 2.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

DIT 105(1)  Course ID:000615
Mechanical Principles
Provides opportunities to practice hands on skills of measuring with precision measurement tools such as micrometers, dial indicator sand caliper. This class also provides opportunities for the student to practice drilling and tapping. Proper rigging techniques are illustrated and practice to ensure that the student will know how to safely lift large and awkward items. Laboratory: 1.0 credit (45 contact hours).
Components: Laboratory
Attributes: Technical

DIT 110(3)  Course ID:001274
Introduction To Diesel Engines
Covers fundamental concepts of the operation of two- and four-stroke diesel and gasoline engines. Includes basic engine components and their functions, engine performance terminology, two- and four-stroke operation, combustion principles, and engine disassembly with basic hand tools. Co-requisite: DIT 111. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DIT 111(2)  Course ID:001275
Introduction To Diesel Engines Lab
Includes the hands-on concepts covered in DIT 110. Covers the inspection, diagnosis and repair strategies for the basic repair of internal combustion diesel engines. Co-requisite: DIT 110. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

DIT 112(3)  Course ID:001276
Diesel Engine Repair
Includes how to take a disassembled engine and evaluate the condition of each component. Includes the identification and use or function of each component of the engine. Covers cylinder block and components, cylinder heads and valve train components, and engine lubrication systems. Pre-requisite: DIT 110 or ADX 150. Co-requisite: DIT 113. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DIT 113(2)  Course ID:001277
Diesel Engine Repair Lab
Includes the hands-on concepts covered in DIT 112. Covers the inspection, diagnosis and repair strategies of internal combustion late model diesel engines. Pre-requisite: DIT 111 or ADX 151. Co-requisite: DIT 112. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

DIT 120(3)  Course ID:001278
Introduction to Maintenance Welding
This course provides training in the identification, inspection and maintenance of welding electrodes. Training will be given in the principles and processes of welding plates and pipes. Instruction will be given in lab safety and basic oxy fuel cutting. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DIT 121(3)  Course ID:001279
Introduction to Maintenance Welding Lab
Provides laboratory experiences in which students acquire the manipulative skills needed to weld surface, fillet, and groove welds in flat and horizontal positions. The students will perform oxy fuel cutting operations. Lab: 3.0 credits (135 contact hours).
Components: Laboratory
Attributes: Technical

DIT 122(3)  Course ID:001280
Undercarriage
Students learn the theory and operation of undercarriage systems and their components. These components include endless track, roller track, roller frames, idlers, roller supports, and mainframes. Co-requisite: DIT 123. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DIT 123(3)  Course ID:001281
Undercarriage Lab
Provides opportunities to troubleshoot and repair some parts of undercarriage systems and their components. These components include endless track, roller track, roller frames, idlers, roller supports, and mainframes. Lab: 3.0 credits (135 contact hours).
Components: Laboratory
Attributes: Technical

DIT 140(3)  Course ID:001282
Hydraulics
Covers the theory and operation of a hydraulic system including pumps, filters, reservoirs, valves and actuators. Co-requisite: DIT 141. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DIT 141(2)  Course ID:001283
Hydraulics Lab
Includes the hands-on concepts covered in DIT 140. Covers the inspection, diagnosis and repair strategies of hydraulic systems. Co-requisite: DIT 140. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

DIT 150(3)  Course ID:001284
Power Trains
Covers the theory and operation of the power train systems on medium and heavy duty trucks. Covers the diagnosis and repair techniques of the power train systems. Co-requisite: DIT 151. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DIT 151(2)  Course ID:001285
Power Trains Lab
Provides for practical application of concepts taught in DIT 150. Covers topics covered that will include clutches, transmission, and drive axles on medium and heavy duty trucks. Co-requisite: DIT 150. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

DIT 152(3)  Course ID:001286
Powertrain for Construction Equipment
Students learn the theory and principles of the operation of power transmissions. They learn to diagnose and repair power train units including torque connectors, standard and automatic transmissions. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DIT 153(2)  Course ID:001287
Powertrain for Construction Equipment Lab
Students troubleshoot, disassemble, evaluate parts and reassemble components of a power train system, such as torque connectors, standard and automatic transmissions, and drive lines. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

DIT 160(3)  Course ID:001288
Steering and Suspension
Covers the theory, operation and diagnosis of the steering and suspension system on medium and heavy duty trucks. Co-requisite: DIT 161. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DIT 161(2)  Course ID:001289
Steering and Suspension Lab
Provides for practical application of concepts taught in DIT 160. Introduces skills necessary in the diagnosis and repair of truck suspension systems, wheel alignment, and wheel balancing. Pre-requisite: DIT 160. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

DIT 180(3)  Course ID:001290
Brakes
Covers the operational theory and application of air brakes, hydraulic brakes and anti-lock brake systems. Covers the function and repair of disc brakes and drums brakes. Co-requisite: DIT 181. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DIT 181(2)  Course ID:001291
Brakes Lab
Provides hands on activities related to the concepts covered in DIT 180. Includes the inspection, diagnosis and performing repairs on air powered and hydraulic powered braking systems found on medium and heavy duty trucks. Co-requisite: DIT 180. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

DIT 190(3)  Course ID:001292
Electrical Systems for Diesel Equipment
Covers the operation and diagnosis of the truck electrical system including the battery, starter, alternator, lighting and accessories. Co-requisite: DIT 191. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DIT 191(2)  Course ID:001293
Electrical Systems for Diesel Equipment Lab
Provides hands-on activities related to the concepts covered in DIT 190. Covers inspection, diagnosis and performing repairs on batteries, starters, alternators and accessory systems found on medium and heavy duty trucks. Co-requisite: DIT 190. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical
DIT 198(1) Course ID:001297
Instructor Consent Required
Practicum
The Practicum provides supervised on-the-job work experience related to the student's education objectives. Students participating in the Practicum do not receive compensation. Pre-requisite: Permission of Instructor.
Co-op: 1 credit (75 contact hours).
Components: Practicum
Attributes: Technical

DIT 199(1) Course ID:001298
Cooperative Education
The cooperative education program provides supervised on-the-job work experience related to the students education objectives. Students participating in the Cooperative Education Program normally receive compensation. Pre-requisite: Permission of Instructor. Co-op: 1 credit (75 contact hours).
Components: Co-Op
Attributes: Technical

DLC Digital Literacy
DLC 101(3) Course ID:017022
Digital Literacy
Introduces the central components of digital literacy including computer operation for information gathering, communication, and living/working online. Presents how to use productivity software such as word processors, spreadsheets, databases, and presentation software. Exploration of the legal and ethical environment concerning computer technology. Addresses issues related to computers security, troubleshooting, and methods for enhancing work and life. Pre-requisite: RDG 20 OR Consent of Instructor. Lecture: 3 credit hours (45 contact hours).
Components: Lecture
Attributes: Digital Literacy, Course Also Offered in Modules

DLC 101(1) Course ID:017023
Digital Essentials
Introduces students to computer classifications, how to use an operating system, and how to use email. Pre-requisite: RDG 20 or Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

DLC 102(1) Course ID:017024
Digital Intermediate
Introduces students the legal and ethical use of computers. Introduces students to the use of productivity software. Pre-requisite: DLC 101 or Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

DLC 103(1) Course ID:017025
Digital Advanced
Introduces students to the principles of computer and network security, basic troubleshooting techniques, and how to use computers to enhance life and work. Pre-requisite: DLC 1012 or Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture

DLT Dental Laboratory Technology
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 time, and quality requirements. Laboratory experience is provided in the classroom or selected externships in local dental laboratories. Pre-requisite: DLT 261. Lecture: 2 credits (30 contact hours). Laboratory: 6 credits (270 contact hours).
Components: Laboratory, Lecture

DMI Radiologic Technology
DMI 102(1) Course ID:017125
Medical Terminology for Radiography
Provides an introduction to the origins of medical terminology. Introduces a word-building system and discusses medical abbreviations and symbols. Introduces an orientation to understanding radiographic orders and diagnostic report interpretation and related terminology. Pre-requisite: Admission to the radiography program. Lecture: 1 credit hour (15 contact hours).
Components: Lecture
Attributes: Technical

DMI 106(3) Course ID:017126
Patient Care and Ethics for Radiographers
Provides the concepts of optimal patient care, including consideration for the physical and psychological needs of the patient and family. Describes routine and emergency patient care procedures, as well as infection control procedures using standard precautions. Identifies the role of the radiographer in patient education. Provides a foundation in ethics and law related to the practice of medical imaging. Examines a variety of ethical and legal issues found in clinical practice. Pre-requisite: Admission to the radiography program. Lecture: 2 credit hours (30 contact hours) Lab: 1 credit hour (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DMI 108(4) Course ID:017127
Radiographic Positioning & Procedures I
Provides the knowledge base necessary to perform imaging procedures of the upper extremities and shoulder girdle, lower extremities and pelvic girdle, bony thorax, chest, upper airway, and plain abdomen. Covers criteria for optimal diagnostic images, including anatomical structures shown, as well as corrective positioning action to be taken for sub-optimal images. Pre-requisite: BIO 137. Lecture: 2 credit hours (30 contact hours) Lab: 2 credit hours (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DMI 110(1) Course ID:017141
Radiography Practicum I
Designed to sequentially develop, apply, critical analyze, integrate, synthesize and evaluate concepts and theories in the performance of radiologic procedures. Provides structured clinical experience through sequential competency-based assignments that focus on the upper and lower extremities, bony and visceral thorax, abdomen, vertebral column, cranium, facial bones, and contrast studies of the digestive and urinary system. Pre-requisite: DMI 110. Practicum: 2 credit hours (180 contact hours).
Components: Practicum
Attributes: Technical

DMI 114(4) Course ID:017140
Principles of X-ray Production, Exposure and Image Acquisition
Establishes a basic knowledge of atomic structure and terminology. Presents the nature and characteristics of radiation, x-ray production and the fundamentals of photon interactions with matter. Establishes a knowledge base in factors that govern the image production process. Imparts an understanding of the components, principles and operation of digital imaging systems found in diagnostic radiology. Includes factors that impact image acquisition, display, archiving and retrieval are discussed. Presents the principles of digital system quality assurance and maintenance. Pre-requisite: MAT 150 or higher level quantitative reasoning course. Lecture: 3 credit hours (45 contact hours). Lab: 1 credit hour (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DMI 115(2) Course ID:017139
Pharmacology for Radiographers
Provides basic concepts of pharmacology, venipuncture and administration of diagnostic contrast agents. Explains the classification and scheduling of drugs. Emphasizes the appropriate delivery of patient care during radiographic procedures requiring the administration of contrast agents. Pre-requisite: DMI 106 & DMI 108. Lecture: 2 credit hours (30 contact hours).
Components: Lecture
Attributes: Technical

DMI 118(4) Course ID:017138
Radiographic Positioning and Procedures II
Provides the knowledge base necessary to perform standard imaging procedures of the spine, cranium, facial bones, paranasal sinuses, upper gastrointestinal, lower gastrointestinal, and urinary system. Covers criteria for optimal diagnostic images, including anatomical structures shown, as well as corrective positioning action to be taken for sub-optimal images. Pre-requisite: DMI 110. Lecture: 3 credit hours (45 contact hours) Lab: 1 credit hour (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DMI 120(2) Course ID:017137
Radiography Practicum II
Continues the DMI 110 clinical experience. Designed to sequentially develop, apply, critical analyze, integrate, synthesize and evaluate concepts and theories in the performance of radiologic procedures. Provides structured clinical experience through sequential competency-based assignments that focus on the upper and lower extremities, bony and visceral thorax, abdomen, vertebral column, cranium, facial bones, and contrast studies of the digestive and urinary system. Pre-requisite: DMI 110. Practicum: 2 credit hours (180 contact hours).
Components: Practicum
Attributes: Technical

DMI 123(3) Course ID:017136
Radiographic Positioning and Procedures III
Provides the knowledge base and practical skills necessary to perform special diagnostic studies. Covers fluoroscopic procedures requiring informed consent, aseptic technique, and the administration of various contrast media. Considers the evaluation of optimal diagnostic images. Pre-requisite: DMI 108 & DMI 118. Lecture: 2 credit hours (30 contact hours) Lab: 1 credit hour (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DMI 130(2) Course ID:017135
Radiography Practicum III
Continues the DMI 120 clinical experience. Designed to sequentially develop, apply, critical analyze, integrate, synthesize and evaluate concepts and theories in the performance of radiologic procedures. Provides structured clinical experience through sequential competency-based assignments that focus on the upper and lower extremities, bony and visceral thorax, abdomen, vertebral column, cranium, facial bones, and contrast studies of the digestive and urinary systems, as well as surgical radiographic procedures. Pre-requisite: DMI 120. Practicum: 2 credit hours (180 contact hours).
Components: Practicum
Attributes: Technical
DMI 214(4) Course ID:017134
Radiographic Equipment and Quality Control
Establishes a knowledge base in design, construction requirement, functions and use of radiographic and fluoroscopic equipment, both fixed and mobile. Explains component and functions of various digital imaging processing and display systems. Provides a basic knowledge of quality control and federal regulation standards of operation for diagnostic radiographic equipment. Pre-requisite: DMI 114, Lecture: 3 credit hours (45 contact hours), Lab: 1 credit hour (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DMI 220(4) Course ID:017133
Radiography Practicum IV
Continues the DMI 130 clinical experience. Designed to sequentially develop, apply, critically analyze, synthesize and evaluate concepts and theories in the performance of radiologic procedures. Provides structured clinical experience through sequential competency-based assignments that focus on the upper and lower extremities, bony and visceral thorax, abdomen, vertebral column, cranial, facial bones, and contrast studies of the digestive and urinary systems, surgical radiographic procedures and special diagnostic procedures such as myelograms, arthrograms, hepatobiliary studies, and venography. Pre-requisite: DMI 130. Practicum: 4 credit hours (360 contact hours).
Components: Practicum
Attributes: Technical

DMI 222(2) Course ID:017132
Image Analysis
Provides a basis for analyzing radiographic images. Includes the importance of optimal imaging standards, discussion of a problem-solving technique for image evaluation and the factors that can affect image quality. Includes the analysis of actual radiographic images. Pre-requisite: DMI 108 & DMI 118. Lecture: 2 credit hours (30 contact hours).
Components: Lecture
Attributes: Technical

DMI 224(2) Course ID:017131
Radiation Protection and Biology for Radiographers
Presents an overview of the principles of radiation protection, including the responsibilities of the radiographer for patients, personnel and the public. Radiation health and safety requirements of federal and state regulatory agencies, accreditation agencies and health care organizations are incorporated. Provides an overview of the principles of the interaction or radiation with living systems. Presents radiation effects on molecules, cells, tissues and the whole body. Introduces the factors affecting biological response are presented, including acute and chronic effects of radiation. Pre-requisite: DMI 114. Lecture: 2 credit hours (30 contact hours).
Components: Lecture
Attributes: Technical

DMI 226(3) Course ID:017130
Radiographic Anatomy & Pathology
Introduces concepts related to the classification of disease, etiology, epidemiology, treatment and prognosis. Delineates the appropriate imaging modality for the greatest diagnostic sensitivity. Describes the radiographic appearance of disease and its impact of exposure factor selections. Emphasized normal radiographic anatomy as an indicator and identification of pathologies. Pre-requisite: DMI 108, DMI 118, & DMI 128. Lecture: 3.0 credit hours (45 contact hours).
Components: Lecture
Attributes: Technical

DMI 228(3) Course ID:017129
Seminars in Radiography
Provides specialized information needed by the entry level radiographer; includes the radiography practitioner’s role in the health care delivery system, continuing education and professional development, advanced modalities, accreditation organizations, national registration and state licensure, as well as the benefits of membership and activity in professional societies. Examines the principles, practices and policies of health care organizations and the delivery of health care in the United States. Pre-requisite: Final semester in the radiography program. Lecture: 3 credit hours (45 contact hours).
Components: Lecture
Attributes: Technical

DMI 230(4) Course ID:017128
Radiography Practicum V
Continues the DMI 220 clinical experience. Designed to sequentially develop, apply, critically analyze, synthesize and evaluate concepts and theories in the performance of radiologic procedures. Provides structured clinical experience through sequential competency-based assignments that focus on the upper and lower extremities, bony and visceral thorax, abdomen, vertebral column, cranial, facial bones, and contrast studies of the digestive and urinary systems, surgical radiographic procedures and special diagnostic procedures such as myelograms, arthrograms, hepatobiliary studies, and venography. Pre-requisite: DMI 220. Practicum: 4 credit hours (360 contact hours).
Components: Practicum
Attributes: Digital Literacy, Technical

DMS Diagnostic Medical Sonographer

DMS 109(7) Course ID:004392
Sonography I
Provides a study of diagnostic foundations of clinical medicine pertinent to abdominal, superficial structures, musculoskeletal and non-cardiac chest sonography. Includes obtaining the clinical history, interpretation of clinical laboratory test, the pathophysiologic effects of disease, related clinical signs and symptoms, sectional anatomy, and normal/abnormal sonographic patterns. Includes a laboratory component for the practice and application of normal sonographic patterns, basic scanning techniques and protocol. Pre-requisite: Admission to Diagnostic Medical Sonography Program; Computer Literacy; NAA 100 or equivalent; CPR certification. Lecture: 5.0 credits (75 contact hours); Laboratory: 2.0 credits (90 contact hours) (45:1 Ratio).
Components: Laboratory, 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 signs and symptoms, sectional anatomy, and normal/abnormal sonographic patterns. Includes a laboratory component for the practice and application of normal sonographic patterns, basic scanning techniques and protocol. Pre-requisite: Admission to Diagnostic Medical Sonography Program; Computer Literacy; NAA 100 or equivalent; CPR certification. Lecture: 5.0 credits (75 contact hours); Lab: 2.0 credits (90 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

DMS 115(6) Course ID:004395
Instructor Consent Required
Sonography II
Covers the study of the clinical applications within the sonographic specialties of obstetrics, gynecology, female breast, and neuroradiography. Includes related clinical symptoms and laboratory tests, pathophysiologic effects of disease and anomalies, and normal/abnormal sonographic patterns. Includes basic scanning techniques and protocol. With an emphasis on the demonstration of clinical applications of theoretical principles and concepts. Pre-requisite: Admission to Diagnostic Medical Sonography Program; Computer Literacy; NAA 100 or equivalent; CPR certification. Lecture: 4.0 credits (60 contact hours); Laboratory: 2.0 credits (90 contact hours), (45:1 Ratio).
Components: Laboratory, Lecture
Attributes: Technical

DMS 116(6) Course ID:006260
OB/GYN Sonography
Covers the study of the clinical applications within the sonographic specialties of obstetrics and gynecology. Includes related clinical symptoms and laboratory test, pathophysiologic effects of disease and anomalies, and normal/abnormal sonographic patterns. Includes basic scanning techniques and protocol. Designed for the student to utilize the laboratory facilities to demonstrate clinical applications of theoretical principles and concepts. Pre-requisite: Admission to Diagnostic Medical Sonography Program; Computer Literacy; CPR certification; NAA 100 or equivalent. Lecture/Lab: 6.0 credits (150 contact hours).
Components: Lecture
Attributes: Technical

DMS 119(6) Course ID:004393
Department Consent Required
Ultrasound Physics and Instrumentation
Consists of lectures and related laboratory exercises covering the areas of ultrasonic propagation principles, transducer parameters, interactive properties of ultrasound with human tissue, possible biologic effects, basic equipment types, instrumentation and quality control procedures, hemodynamics and basic Doppler. Pre-requisite: Consent of Program Coordinator. Lecture: 6.0 credits (90 contact hours).
Components: Clinical
Attributes: Technical

DMS 126(3 - 4) Course ID:004394
Clinical Education I
Includes observation of all clinical duties performed in the ultrasound department. Covers basic instruction and scanning experience in abdomen, superficial structures, non-cardiac chest, embryo/fetus, gravid and non-gravid pelvic structures with basic competencies to be performed. Pre-requisite: Minimum grade of “C” in (DMS 109 and DMS 115) or (DMS 111 and DMS 116). Clinical: 3.0 - 4.0 credits (180 - 240 contact hours).
Components: Clinical
Attributes: Technical

DMS 146(12) Course ID:017115
Cardiac Techniques I
Provides a study of normal cardiovascular anatomy and physiology including hemodynamic concepts, electrophysiology, and the conduction system. Includes patient care and medical and legal issues of sonographers. Presents pathophysiologic conditions, signs and symptoms of valvular heart disease, ischemic cardiac disease, and infective endocarditis, and prosthetic heart valves and discussion of the various cardiac testing procedures used in diagnosis. Includes a laboratory component to develop basic skills in 2D, M-mode, Doppler scanning techniques and standard measurements. Pre-requisite: Admission to Diagnostic Sonography program; Digital Literacy; NAA 100 or equivalent; CPR certification. Lecture: 8 credit hours (120 contact hours); Lab: 4 credit hours (180 contact hours).
Components: Integrated Laboratory, Integrated Lecture
Attributes: Technical

DMS 147(1) Course ID:017116
Cardiac Clinical Education I
Introduces the student to the clinical environment including the function and organization of the echocardiography department and the various testing procedures utilized in the diagnosis of cardiac diseases. Presents opportunities to observe and model the appropriate professional behaviors and communication expected in the clinical setting and initiates the performance of basic scan skills under the supervision of appropriately credentialed cardiac sonographers. Pre-requisite: Admission to the Diagnostic Medical Sonography program; Digital Literacy; NAA 100 or equivalent; CPR certification. Co-requisite: DMS 146. Clinical: 1 credit hour (60 contact hours).
Components: Clinical
Attributes: Technical
DMS 199(1) Course ID:005936
Online Physics Review
Includes a review of basic ultrasound physics, transducers, bioeffects, artifacts, quality assurance and principles of Doppler techniques. Pre-requisite: DMS 119 or 121 with minimum "C" grade or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical

DMS 201(1) Course ID:005937
Online Abdomen Review
Provides a review of abdominal sonography to prepare the student for the related registry. Includes obtaining a clinical history, interpretation of clinical laboratory tests, pathologic basis for disease, related clinical signs and symptoms, sectional anatomy, and normal/abnormal sonographic patterns. Pre-requisite: DMS 105 or DSM 111 with minimum "C" grade or Consent of Program Coordinator. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical

DMS 202(1) Course ID:005938
Online OB/GYN Review
Provides a review of related clinical signs and symptoms, laboratory tests, and normal/abnormal sonographic patterns in preparation for the related OB/GYN registry. Pre-requisite: DMS 115 or DMS 116 with minimum "C" grade or Consent of Program Coordinator. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical

Cardiac Techniques II
Course ID:017117
Pre-requisite: Cardiac Sonography I or Consent of instructor. Pre-requisite: DMS 147 with a grade of Pass or Consent of Program Coordinator. Lecture: 6 credit hours (360 contact hours).
Components: Clinical
Attributes: Technical

DMS 207(7)
Course ID:017117
Cardiac Techniques III
Pre-requisite: DMS 230 with Minimum "C" grade or Consent of Program Coordinator. Lecture: 6 credit hours (360 contact hours).
Components: Lecture
Attributes: Technical

DMS 215(6)
Course ID:005944
Cardiac Sonography III
Covers the basic embryology of the heart, fetal and postnatal circulation, and basic types of congenital heart defects found in the adult. Includes how systemic disease affects the heart and basic clinical problem solving techniques used in echocardiography. Pre-requisite: DMS 205 with minimum "C" grade. Lecture/Lab: 6.0 credits (270 contact hours).
Components: Lecture

DMS 230(5 - 8)
Course ID:004396
Clinical Education II
Includes interaction in all clinical duties performed in all ultrasound departments. Covers abdomen, superficial structures, heart, cardiac, breast, abdomen/pelvis, obstetrics and gynecology, vascular, and non-gravid pelvic structures with performance of basic and advanced competencies to be performed. Pre-requisite: Admission to Diagnostic Medical Sonography Program; Computer Literacy; Minimum grade of "C" in BIO 135 or (BIS 57 and BIO 139) and (PHY 151 or PHY 152 or PHY 171) and MAT 150. Clinical: 5.0 - 8.0 credits (300 - 480 contact hours).
Components: Clinical
Attributes: Technical

DMS 240(5 - 8)
Course ID:004398
Clinical Education III
Continues the clinical experience by student assuming a more active role in assisting the practicing sonographer and performing sonographic duties under direct supervision of the instructor. Emphasizes increased student's ability to comprehend and perform assignments. Pre-requisite: DMS 230 with Minimum "C" grade. Clinical: 5.0 - 8.0 credits (300 - 480 contact hours).
Components: Clinical
Attributes: Technical

DMS 247(2)
Course ID:017120
Cardiac Clinical Education II
Includes observation of all clinical duties in the echocardiographic department including routine, stress, transesophageal echocardiography (TEE), and 3D echocardiography as possible. Emphasizes basic clinical scanning experience under the supervision of a credentialed Cardiac Sonographer. Pre-requisite: DMS 147 with a grade of Pass or Consent of Program Coordinator. Co-requisite: DMS 207. Clinical: 2 credit hours (120 contact hours).
Components: Clinical
Attributes: Technical

DMS 248(6)
Course ID:017121
Cardiac Clinical Education III
Requires progressive clinical experience with student assuming a more active role in assisting the supervising Cardiac Sonographer with the rate of progress dependent upon the student's ability. Emphasizes increased participation in performance of the complete adult echocardiographic study, including scanning competencies, and participation in non-routine procedures including transesophageal echocardiography (TEE) and stress echocardiographic studies. Pre-requisite: DMS 247 with minimum "C" grade or Consent of Program Coordinator. Clinical: 6 credit hours (360 contact hours).
Components: Clinical
Attributes: Technical

DMS 255(6)
Course ID:005939
Vascular Technology
Presents normal/abnormal sectional anatomy, hemodynamics, patient assessment and diagnostic testing related to vascular technology. Includes applications of pathophysiologic basis, clinical signs and symptoms and typical findings related to the peripheral vascular system. Includes therapeutic interventions, intraoperative monitoring and the use of contrast agents. Covers vascular physical principles 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

DPT 100(3)
Course ID:015703
Introduction to 3D Printing
Provides an introduction to the world of additive manufacturing, or more commonly known as three-dimensional printing (3DP), and its applications in conjunction with computer technology. Introduces topics including computer hardware and software, 3D printing technology, file management, the Internet, email, the social web, sustainability, security, and computer and intellectual property ethics. Presents basic use of applications, programming, systems, and utility software. Lecture: 2 credit hours (30 contact hours). Lab: 1 credit hour (30 contact hours).
Components: Integrated Laboratory, Integrated Lecture
Attributes: Digital Literacy, Technical

DPT 102(2)
Course ID:016604
3D Printing Technology Fundamentals
Provides an introduction to the world of three-dimensional (3D) printing or additive manufacturing (AM) and its applications. Introduces topics including 3D printing technologies, basic use of 3D applications, programming, systems, 3D-printing, and utility software. Pre-requisite or Co-requisite: CIT 105, demonstration of digital literacy competency by exam or certificate, or other approved course with digital literacy status. Lecture/Lab: 2.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

DPT 150(3)
Course ID:016605
Introduction to Engineering Mechanics for 3D Printing
Provides an introduction to simplified engineering mechanical principles as they apply to 3D printing, or additive manufacturing, designs and products. Requires students to apply concepts related to simple force and stress analysis, material property selection, and deformation to their designs for the purpose of improving functional performance and overall printing success. Explores finishing and post-processing techniques to enhance the final appearance and marketability of their printed work. Pre-requisite: DPT 100 or DPT 102. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

DPT 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 a professional. Focuses on various assignments and curriculum as determined by the program instructor. Pre-requisite: DPT 100 or DPT 102. Lecture/Lab: 1.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

ECO 101(3)
Course ID:000445
Contemporary Economic Issues
Covers contemporary economic issues such as inflation, poverty and affluence, globalization, and environmental pollution. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, Course Also Offered in Modules

ECO 158(3)
Course ID:006703
Introduction to Global Economics
Covers the causes and issues of global economic interdependence, with particular emphasis on cross-cultural implications of globalization. Includes global economic issues such as economic development, global economic governance, changing demographics, health care, world poverty, changing patterns of food production, global energy use, and the economic consequences of global environmental issues. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

ECO 201(3)
Course ID:000447
Principles of Microeconomics
Covers the allocation of scarce resources from the viewpoint of individual economic units. Topics include supply and demand, elasticity, costs, and markets. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, Course Also Offered in Modules

ECO 202(3)
Course ID:004449
Principles of Macroeconomics
Covers how society's needs are satisfied with the limited resources available. Includes issues such as inflation, unemployment, economic growth, globalization, and fiscal and monetary policy. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, Course Also Offered in Modules
Eco 102(1)  
Course ID: 005926  
Markets and Macroeconomic Goals  
Covers contemporary economic issues such as price indices, efficiency, equity, poverty and welfare. Pre-requisite: ECO 1011. Lecture: 1 credit (15 contact hours).  
Components: Lecture

Eco 103(1)  
Course ID: 005927  
Markets and Regulation  
Covers contemporary economic issues such as externalities, market failure, globalization, and environmental pollution. Pre-requisite: ECO 1012. Lecture: 1 credit (15 contact hours).  
Components: Lecture

Eco 201(0.75)  
Course ID: 005928  
The Role of Economics  
Covers the allocation of scarce resources from the viewpoint of individual economic units. Topics include the circular flow of resources in the economy, the production possibilities frontier, and opportunity cost. Lecture: 0.75 credit (11.25 contact hours).  
Components: Lecture

Eco 202(0.75)  
Course ID: 005929  
How Markets Work  
Covers the allocation of scarce resources from the viewpoint of individual economic units. Includes supply and demand and government intervention in markets. Pre-requisite: ECO 2011. Lecture: 0.75 (11.25 contact hours).  
Components: Lecture

Eco 203(0.75)  
Course ID: 005930  
Markets and Welfare  
Covers the allocation of scarce resources from the viewpoint of individual economic units. Includes consumer and producer decision making and the equity and efficiency of markets. Pre-requisite: ECO 2012. Lecture: 0.75 credit (11.25 contact hours).  
Components: Lecture

Eco 204(0.75)  
Course ID: 005931  
Firm Behavior and Market Structures  
Covers the allocation of scarce resources from the viewpoint of individual economic units. Includes competitive and non-competitive markets. Pre-requisite: ECO 2013. Lecture: 0.75 credit (11.25 contact hours).  
Components: Lecture

Eco 205(0.75)  
Course ID: 005932  
Measuring Macroeconomic Outcomes  
Covers how society’s needs are satisfied with the limited resources available. Includes national income accounting, inflation, and unemployment. Lecture: 0.75 credit (11.25 contact hours).  
Components: Lecture

EDM 270(3)  
Course ID: 004011  
Teaching and Learning in the Middle Grades  
Provides students in middle school education with knowledge and experience critical for instruction of middle school students and management of middle school classrooms. Requires field experience of a minimum of 15 clock hours in instructor-approved education agencies. Pre-requisite: EDP 202 and EDU 201. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

EDP 202(3)  
Course ID: 000452  
Human Development and Learning  
Prepares teachers and educational leaders 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 15 clock hours in instructor-approved educational agencies. Pre-requisite: PSY 100 or PY 110. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: Other

EDP 203(3)  
Course ID: 000453  
Teaching Exceptional Learners in Regular Classrooms  
Introduces the characteristics and instructional needs of exceptional learners with an overview of principles, procedures, methods, and materials for adapting educational programs to accommodate the integration of exceptional children in regular classrooms, when appropriate. Requires field experience of a minimum of 12 clock hours in instructor-approved educational agencies. Pre-requisite: EDP 202 with an earned grade of C or higher. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: Other

EDP 260(3)  
Course ID: 016282  
Motivation and Classroom Management  
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: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Other

EDU 110(3)  
Course ID: 004451  
Orientation to Education  
Introduces the roles and responsibilities of both the paraeducator and the classroom teacher. Covers legal and ethical issues that might be encountered in the classroom, instructional support strategies that might be implemented by paraeducators, universal health and safety procedures, and the importance of communication and teamwork in the instructional environment. Introduces the design of learning environments that encourage active participation in individual and group settings. Requires 10 hours of field work. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

EDU 120(3)  
Course ID: 004450  
Child and Adolescent Development  
Acquaints the student with the biological, social, moral, language, emotional, and physical development of children and adolescents. Addresses the application of these theories in the modern classroom. Requires 10 hours of field work. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

EDU 130(3)  
Course ID: 004449  
Introduction to Special Education  
Introduces methods on the creation of a learning environment, basic classroom management theories, key principles and practices of special education, and the similarities and differences of individuals with and without exceptional learning needs. Requires 10 hours of field work. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

EDU 140(3)  
Course ID: 004448  
Introduction to Behavior Management  
Introduces the student to strategies of classroom and behavior management that create a positive learning environment encouraging student self-advocacy, increased independence, and improved communication skills. Introduces behavior management strategies that encourage respect and value individual differences among children, youth, and adults and how consequences should be used to motivate positive student behavior. Includes focus on chronic behavior problems. Requires 10 hours of field work. Pre-requisite: ENG 101. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

EDU 150(3)  
Course ID: 000451  
Introduction to American Education  
Introduces American education to students. Presents an introduction to teaching including teaching as a profession, major educational philosophies, social reform, trends and issues in education, curriculum and instruction. Requires a minimum of 15 clock hours of field observation in an approved educational setting. Pre-requisite: ENG 101 or consent of instructor. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

EDU 204(3)  
Course ID: 004547  
Technology In the Classroom  
Provides the student with a basic skill set to utilize technology in instruction and instructional management. Explores the methods of using computing fundamentals, key technology applications, and the digital environment to enhance teaching and learning. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Digital Literacy

EDU 240(3)  
Course ID: 002279  
Elementary and Middle School Literature  
Surveys both traditional and modern literature for children and adolescents. Emphasizes selection, evaluation, storytelling, and the use of media to meet the literary needs and interests of children from preschool through middle school. Requires fifteen hours of field observation. Pre-requisite: ENG 102. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

EDU 270(3)  
Course ID: 004551  
Elementary School Literature  
Surveys traditional and modern literature for elementary school children. Emphasizes selection, evaluation, storytelling, and the use of media to meet the literary needs and interests of children. Requires a minimum of 15 clock hours of field observation in an approved educational setting. Pre-requisite: ENG 102. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical
EE 210(3.5) Course ID:017242
Circuits and Networks I
An introductory course in circuit analysis including Kirchoff's Laws, independent and dependent sources, power and energy, lumped linear fixed networks, power factor, phasors, and three phase networks. Pre-requisite: MAT 185 Calculus II (C or better). Co-requisite: PHY 232 University Physics II. Lecture: 3 credit hours (37.5 contact hours). Lab: 0.50 credit hour (30 credit hours).
Components: Laboratory, Lecture
Attributes: University Course (Western Kentucky University)

EE 211(4) Course ID:000454
Circuits I
Fundamental laws, principles and analysis techniques for DC and AC linear circuits whose elements consist of passive and active components used in modern engineering practice including the determination of steady state and transient responses. Pre-requisite: MA 114. Pre-requisite or concurrent: PHY 232, PHY 242.
Components: Lecture
Attributes: Technical

EES 101(2) Course ID:001332
Basic Electronics
Provides the foundation for further study in technologies related to electricity or electronics. Addresses the following areas: basic electrical components and their properties, quantities, and units of measurement; calculation of voltage, current, resistance, energy, and power using Ohms Law; construction and analysis of series, parallel, and series/parallel circuits; principles of magnetism and electromagnetism; alternating current and voltage; reactive components; construction and analysis of RC, RL, and RLC circuits; sinusoidal and other waveforms. Lecture/Lab: 2.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

EE 119(5) Course ID:018582
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, DC and AC Principles, magnetic fields, 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 contact hours Lecture / 60 contact hours Lab)
Components: Lecture
Attributes: Technical

EE 127(1) Course ID:018553
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

EE 150(2) Course ID:001355
Transformers
Focuses on the operation, installation and application of AC single-phase and three-phase transformers. Testing and maintaining transformer equipment are emphasized, with safety integrated as a core component of the study. Pre-requisite: [ELT 110 or EET 119] with a minimum grade of “C” or consent of Electrical Technology program advisor(s). Co-requisite: EET 151. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

EET 151(1) Course ID:0001356
Transformers Lab
Focuses on the operation, installation and application of AC single-phase and three-phase transformers. Testing and maintaining transformer equipment is emphasized, with safety integrated as a core component of the study. Pre-requisite:[ELT 110 or EET 119] with a minimum grade of “C” or consent of Electrical Technology program advisor(s). Co-requisite: EET 150. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Technical

EET 154(2) Course ID:0001358
Electrical Construction I
Involves the study of materials and procedures used in construction wiring. Co-requisite: EET 155. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical

EET 155(2) Course ID:0001359
Electrical Construction I Lab
Designed to give hands-on experiences with electrical materials and equipment in construction wiring. Co-requisite: EET 154. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

EE 198(2) Course ID:001361
Instructor Consent Required
Practicum
The practicum provides supervised on-the-job work experience related to the student's educational objectives. Students participating in the Practicum Education program do not receive compensation for their work. Pre-requisite: Consent of Instructor. Practicum: 2 credits (150 contact hours).
Components: Practicum
Attributes: Technical

EE 199(2) Course ID:001362
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: Consent of Instructor. Co-Op: 2 credits (150 contact hours).
Components: Co-Op
Attributes: Technical

EET 250(4) Course ID:0001410
National Electrical Code
Emphasizes the importance of the National Electrical Code as it applies to electrical installations: electrical safety issues, prevention of fire due to the use of electrical energy, prevention of loss of life and property from the hazards that might arise from the use of electrical energy, and proper selection of electrical equipment for hazardous and non-hazardous environments. A learning resource in the preparation for electrical licensing examinations. Pre-requisite: [EET 154 and EET 155 and EET 252 and EET 253] or (EET 254 and EET 255) with minimum grade of C) or consent of Electrical Technology program advisor(s). Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Technical

EE 252(2) Course ID:001411
Electrical Construction II
Expands the knowledge and skills needed to work in commercial and industrial construction wiring. Pre-requisite: Consent of Instructor or EET 154. Co-requisite: EET 253. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical

EET 253(2) Course ID:001412
Electrical Construction II Lab
Provides hands-on experiences needed to work in commercial and industrial construction wiring. Co-requisite: EET 252. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

EET 254(3) Course ID:0001413
Electrical Construction
This course involves the study of materials and procedures and expands the knowledge and skills needed to work in commercial and industrial construction wiring. Co-requisite: EET 255. Lecture: 3 credits (345 contact hours).
Components: Lecture
Attributes: Technical

EET 255(4) Course ID:0001414
Electrical Construction Lab
Designed to give hands-on experiences with electrical materials and equipment in commercial and industrial construction wiring. Co-requisite: EET 254. Laboratory: 4 credits (120 contact hours).
Components: Laboratory
Attributes: Technical

EE 264(2) Course ID:0001419
Rotating Machinery
Focuses on the underlying principles of rotating electrical equipment including DC and AC motors and generating equipment construction, operating applications, and the maintenance of DC and AC motors and generating equipment. Pre-requisite: [ENGT 110 and ENGT 114] with a minimum grade of C) or consent of Electrical Technology program advisor(s). Co-requisite: EET 265. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical

EET 265(2) Course ID:0001420
Rotating Machinery Lab
Focuses on the principles of operation, application and maintenance of single-phase and three-phase AC motors and AC alternators, DC motors, DC generators. A study of and compliance with the National Electrical Code standards. Pre-requisite: [ELT 110 or EET 119] with a minimum grade of “C” or consent of Electrical Technology program advisor(s). Co-requisite: EET 264. Lab: 2.0 credits (60 contact hours).
Components: Laboratory
Attributes: Technical

EE 266(3) Course ID:0001421
Rotating Machinery and Transformers
Focuses on the principles of operation and application of single-phase and three-phase AC transformers to include: analysis of voltage, current and power parameters and connection configurations. An in-depth study of direct and alternating current rotating machinery that produces and utilizes electrical energy. Pre-requisite: [ELT 110 and ELT 114] with a minimum grade of C) or consent of Electrical Technology program advisor(s). Co-requisite: EET 267. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EE 267(3) Course ID:0001422
Rotating Machinery and Transformers Lab
Applies the principles of operation, application and maintenance of single-phase and three-phase AC transformers, motors and alternators, and DC motors and generators. A study of and compliance with the current National Electrical Code standards will insure safe installation methods. Pre-requisite: [ELT 110 or EET 119] with a minimum grade of “C” or consent of Electrical Technology program advisor(s). Co-requisite: EET 266. Lab: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical
EET 268(3) Course ID:001423
**Instructor Consent Required**

**Rotating Machinery Electrical Motor Controls I**
This course focuses on the construction, operation, and maintenance of DC motors and generators and AC motors and alternators. This course addresses the diversity of control devices and applications used in industry today. Safety and electrical lockouts are also included. Pre-requisite: (ELT 110 or EET 119) with a minimum grade of "C" or consent of Electrical Technology program advisor(s). Co-requisite: EET 268. Lecture: 3.0 credits (45 contact hours).

**Components:** Lecture
**Attributes:** Technical

EET 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 basic operation and maintenance of AC motors and alternators, and DC motors and generators. Safety and electrical lockouts are included. Pre-requisite: (ELT 110 or EET 119) with a minimum grade of "C" or consent of Electrical Technology program advisor(s). Co-requisite: EET 268. Laboratory: 4.0 credits (120 contact hours). Lab: 4.0 credits (120 contact hours).

**Components:** Laboratory
**Attributes:** Technical

EET 270(2) Course ID:001425

**Electrical Motor Controls I**
This course addresses the diversity of control devices and applications used in industry today. Safety and electrical lockouts are also included. Pre-requisite: (ELT 110 or EET 119) with a minimum grade of "C" or consent of Electrical Technology program advisor(s). Co-requisite: EET 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: (ELT 110 or EET 119) with a minimum grade of "C" or consent of Electrical Technology program advisor(s). Co-requisite: EET 270. Lab: 2.0 credit (60 contact hours).

**Components:** Laboratory
**Attributes:** Technical

EET 272(2) Course ID:001427

**Electrical Motor Controls II**
This course provides advanced study of motor controls found in industry. The course addresses solid state relays, hall effect sensors, proximity detectors and photo detectors. Tasks include sketching, installing and troubleshooting the following: three phase controls, variable speed drives using relays as well as solid state devices, and introduction to programmable controls. Pre-requisite: EET 270. Co-requisite: EET 273.

**Components:** Lecture
**Attributes:** Technical

EET 273(2) Course ID:001428

**Electrical Motor Controls II Lab**
This course provides hands-on experience in advanced studies in electrical controls used in industry including three-phase motor control and variable speed control using solid state devices and programmable controls. Pre-requisite: EET 270. Co-requisite: EET 272. Laboratory: 2 credits (60 contact hours).

**Components:** Laboratory
**Attributes:** Technical

EET 274(3) Course ID:001429

**Electrical Motor Controls**
This course addresses the diversity of control devices and applications used in industry today. Safety and electrical lockouts are also included. This course provides advanced study of motor controls in industry. The course addresses solid state relays, hall effect sensors, proximity detectors and photo detectors. Tasks include sketching, installing and troubleshooting the following: three phase controls, variable speed drives using relays as well as solid state devices, and introduction to programmable controls. Pre-requisite: (ELT 110 or EET 119) with a minimum grade of "C" or consent of Electrical Technology program advisor(s). Co-requisite: EET 275. Lecture: 3.0 credits (45 contact hours).

**Components:** Lecture
**Attributes:** Technical

EET 275(4) Course ID:001430

**Electrical Motor Controls Lab**
Provides practical experience in the use of control devices and their applications in industry today. Safety and electrical lockouts are included. Provides hands-on experience in advanced studies in electrical controls used in industry including three-phase motor control and variable speed control using solid state devices and programmable controls. Pre-requisite: (ELT 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 Lab**
Provides practical applications of programmable logic controllers including installation, logic fundamentals, and numbering systems; basic programming of inputs, outputs, timers, and counters, comparators, basic data manipulation, and safety circuits of industrial PLCs. Pre-requisite: (ELT 110 or EET 119) with a minimum grade of "C" and (EET 270 and EET 272) or EET 269 or EET 274 with a minimum grade of "C" or consent of Electrical Technology program advisor(s). Co-requisite: EET 277. Lecture: 2.0 credits (30 contact hours).

**Components:** Lecture
**Attributes:** Technical

EET 277(2) Course ID:001432

**Programmable Logic Controllers**
Provides practical applications of programmable logic controllers including installation, logic fundamentals, and numbering systems; basic programming of inputs, outputs, timers, and counters, comparators, basic data manipulation, and safety circuits of industrial PLCs. Pre-requisite: (ELT 110 or EET 119) with a minimum grade of "C" and (EET 269 or EET 271 and EET 273) or EET 275 with a minimum grade of "C" or consent of Electrical Technology program advisor(s). Co-requisite: EET 276. Lab: 2.0 credits (60 contact hours).

**Components:** Laboratory
**Attributes:** Technical

EET 280(4) Course ID:001412

**Multi-Platform Programmable Logic Controllers**
Introduces students to multiple platforms of programmable logic controllers. Prepares students to wire, communicate with, and troubleshoot multiple brands of PLCs. Introduces students to basic programming of inputs, outputs, internal relay, timers, counters, comparator, math and data manipulation instructions. Provides hands on lab application of multiple platforms of programmable logic controllers found in industry. Pre-requisite: EET 276/277 Programmable Logic Controllers. Integrated Lecture/Lab: 4 credits (90 contact hours).

**Components:** Laboratory
**Attributes:** Technical

EET 281(1) Course ID:001435

**Instructor Consent Required**

**Special Problems I**
A course designed for the student who has demonstrated specific special needs. Pre-requisite: Permission of Instructor. Laboratory: 1 credit (45 contact hours).

**Components:** Laboratory
**Attributes:** Technical

EET 283(2) Course ID:001436

**Instructor Consent Required**

**Special Problems II**
A course designed for the student who has demonstrated specific special needs. Pre-requisite: Permission of Instructor. Laboratory: 2 credits (90 contact hours).

**Components:** Laboratory
**Attributes:** Technical

EET 285(3) Course ID:001437

**Special Problems III**
A course designed for the student who has demonstrated specific special needs. Pre-requisite: Permission of Instructor. Laboratory: 3 credits (135 contact hours).

**Components:** Laboratory
**Attributes:** Technical

EET 286(2) Course ID:004627

**Programmable Logic Controllers II**
Focuses on sequencer instructions, shift registers, process control instructions, networking, communications, human to machine interfaces, and troubleshooting techniques used with programmable logic controllers. Pre-requisite: (EET 276 and EET 277) with a minimum grade of C or consent of Electrical Technology program advisor(s). Co-requisite: EET 287. Lecture: 2 credits (30 contact hours).

**Components:** Lecture
**Attributes:** Technical

EET 287(2) Course ID:004628

**Programmable Logic Controllers II Lab**
Provides hands on lab applications dealing with sequencers, shift registers, networks, communication software, human to machine interfaces, analog devices, and troubleshooting. Pre-requisite: (EET 276 and EET 277) with a minimum grade of C or consent of Electrical Technology program advisor(s). Co-requisite: EET 286. Laboratory: 2 credits (60 contact hours).

**Components:** Laboratory
**Attributes:** Technical

EET 290(4) Course ID:0017413

**Troubleshooting Industrial Controls and Motors**
Introduces students to basic electrical troubleshooting concepts pertinent to the electrical technology industry. Provides an in-depth study of electrical troubleshooting using schematics, wiring diagrams, digital multi-meters, programmable logic controllers, and Megohmmeters. Students will learn how to troubleshoot common electrical faults using a multi-meter. This course focuses primarily on providing students with an overview of common electrical faults and how to pinpoint them using a programmable logic controllers Pre-requisite: EET 276 Programmable Logic Controllers AND EET 277 Programmable Logic Controllers Lab. Integrated Lecture/Lab: 4.0 credits (90 contact hours).

**Components:** Integrated Laboratory, Integrated Lecture
**Attributes:** Technical

EET 295(4) Course ID:0017416

**Alternative Energy Photovoltaic and Wind Electrical Generations Systems**
An introduction to the methods and equipment necessary for the installation and maintenances of photovoltaic and wind electrical generation system. This course also covers the standards and requirements set forth by the National Electric Code and the National Association of Certified Energy Practitioners for alternative energy electrical generation systems. Pre-requisite: ELT110 or EET119 and EET154 and EET155 and EET252 and EET253 or EET 254 and EET 255 and EET250 or electrical experience and consent of instructor. Lecture: 3 credits (45 contact hours). Lab: 1 credit (30 contact hours).

**Components:** Laboratory, Lecture
**Attributes:** Technical

EET 298(1 - 8) Course ID:0001438

**Practicum**
The Practicum provides supervised on-the-job work experience related to the student’s educational objectives. Students participating in the Practicum do not receive credit. (This course may be taken for 1 - 8 credits)

**Components:** Practicum
**Attributes:** Technical

EET 299(1 - 8) Course ID:001439

**Instructor Consent Required**

**Cooperative Education Program**
Co-op provides supervised on-the-job work experience related to the student’s educational objectives. Students participating in the Co-operative Education program receive compensation for their work. (This course may be taken for 1 - 8 credits.) Pre-requisite: Consent of Instructor

**Components:** Co-Op
**Attributes:** Technical
The design of efficient electrical energy systems under controls and equipment. Prepares students to assist in technician will install and maintain efficient electrical buildings with the understanding that the electrical energy Electricians as a foundation into the studies of green Apprentice, Journeyman, Master, and Contractor Attributes: Technical circuits, number systems and codes, and design and troubleshooting of digital logic circuits. Pre-requisite: (MAT 065 or equivalent placement level) or Consent of Instructor. Lecture: 2.0 credits (30 contact hours). Components: Laboratory, Lecture Attributes: Technical ELT 122(3) Course ID:000573 Mechanical Power Transmission Systems Introduces industrial mechanical systems and devices common to the Millwright and Industrial Maintenance trades. Includes topics of belt drives, gear drives, chain drives, couplings, packings and seals, bearings, mechanical fasteners, pipe fittings, pumps, and valves. Components: Lecture Attributes: Technical ELT 201(4) Course ID:000663 Statics and Strength of Materials Introduces static equilibrium involving forces, moments, couples, and equivalent systems. Explores stresses, strains and deflections associated with trusses, frames, beams, columns, and joints. These devices are subjected to various loadings and environments, and are made of standard construction materials. Pre-requisite: (MAT 150 and MAT 155 or MAT 110) or consent of instructor. Lecture: 2.0 credits (30 contact hours). Components: Laboratory, Lecture Attributes: Technical ELT 118(3) Course ID:000566 Computer Numerical Control Introduces computer numerical control technology, covering programming and metal removal techniques. Includes topics of controllable machine components, tools, programmable functions, control system components, physics of metal cutting, metal cutting data, coordinate systems, NC related dimensioning, and CNC programming. Pre-requisite: Consent of Instructor. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours). Components: Laboratory, Lecture Attributes: Technical ELT 120(3) Course ID:004637 Digital I Introduces theory and application of digital logic methods. Includes Boolean algebra, combinatorial logic theory, sequential circuits, number systems and codes, and design and troubleshooting of digital logic circuits. Pre-requisite: (MAT 065 or equivalent placement level) or Consent of Instructor. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours). Components: Laboratory, Lecture Attributes: Technical ELT 111(4) 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 110(1) Course ID:009198 Engineering Exploration I Engineering Exploration I introduces students to the engineering and computer science professions, College of Engineering degree programs, and opportunities for career path exploration. Topics and assignments include study skills, team development, ethics, problem solving and basic engineering tools for modeling, analysis and visualization. Open to students enrolled in the College of Engineering. Students who received credit for EGR 112 are not eligible for EGR 101. Pre-requisites: Enrolled in the College of Engineering or MA/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) ELT 120(3) Course ID:000578 Mechanical Power Transmission Systems Lab Introduces mechanical systems and devices common to the Millwright and Industrial Maintenance trades. Includes topics of belt drives, gear drives, chain drives, couplings, packings and seals, bearings, mechanical fasteners, pipe fittings, pumps, and valves. Components: Lecture Attributes: Technical ELT 124(1) Course ID:000544 Introduction to Engineering Provides an introduction to the engineering profession, engineering disciplines, and technology. Emphasizes a problem-solving approach, engineering design process, and team projects. Includes an introduction to engineering graphics. Intended for students of all majors. Pre-requisite or Co-requisite: Current Placement Scores for College Level Quantitative Reasoning or Consent of Instructor. Lecture/Lab: 2.0 credits (30 contact hours). Components: Lecture, Laboratory Attributes: Technical ELT 103(3) Course ID:005443 Introduction to Engineering Provides an introduction to the engineering profession, engineering disciplines, and technology. Emphasizes a problem-solving approach, engineering design process, and team projects. Includes an introduction to engineering graphics. Intended for students of all majors. Pre-requisite or Co-requisite: Current Placement Scores for College Level Quantitative Reasoning or Consent of Instructor. Lecture/Lab: 2.0 credits (30 contact hours). Components: Lecture Attributes: Technical ELT 102(2) Course ID:000526 Blueprint Reading A comprehensive study of current drafting standards and blueprint reading techniques are included. Topics include standard lines and symbols, sketching techniques, orthographic projection, auxiliary views, detail and assembly drawings, dimensions, tolerances, sectional views, title block information, machining, specifications, and specialized forms of engineering drawings. Lecture: 2.0 (30 contact hours). Components: Lecture Course Equivalents: BRX 120 Attributes: Technical ELT 101( mark 110) or (electrical experience and consent of instructor). Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours). Components: Laboratory, Lecture Attributes: Technical ELT 120(4) Course ID:006821 Outside Plant Communications Introduces students to fiber optic communication systems and up-to-date fiber techniques including how to design, install, test and maintain fiber optic single mode networks. Emphasizes Single Mode fiber optic installation with the associated international standards, theory, and practices. Prepares the student to work with fiber optic splicing, testing and troubleshooting equipment that is found in the workplace. Pre-requisite: (ELT 110 and ETT 110) or (electrical experience and consent of instructor). Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours). Components: Laboratory, Lecture Attributes: Technical Attributes: Other, Enrichment Course Other
ELT 210(4) Course ID:004639

Devices I
Provides basic theory and application of semi-conductor devices. Emphasizes design, construction and troubleshooting of diode and transistor circuits, amplifiers and power supplies. Pre-requisite: ELT 110 with a grade of C or greater) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours), Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

ELT 214(4) Course ID:004642

Devices II
Covers theory and application of advanced semiconductor devices. Emphasizes thyristors, FETs, integrated circuits, and other devices as applied to audio frequency amplifiers, feedback circuits, modulators, detectors, and other basic electronic circuits. Pre-requisite: (ELT 210 with a grade of C or greater) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours), Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

ELT 220(3) Course ID:004645

Digital II
Provides theory and application of advanced digital logic methods. Includes small and medium scale integrated circuits logic families, interfacing techniques, arithmetic circuitry, programmable devices, and an introduction to microprocessors. Pre-requisite: (ELT 120 with a grade of C or greater) or Consent of Instructor. Lecture: 2.0 credits (30 contact hours), Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

ELT 222(3) Course ID:004647

Instructor Consent Required
Mechanics of Telephony
Covers history of the telephone and regulations that impact the telecommunications industry, analog and digital transmission, FDM, TDMA, CDMA, and the evolution of wireless and digital services. Utilizes the graduated height method for developing climbing skills and confidence. Pre-requisite: Consent of Instructor. Lecture: 2.0 credits (30 contact hours), Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

ELT 224(3) Course ID:004648

Instructor Consent Required
Basic Telecommunications Installation and Maintenance
Provides an overview of concepts needed to complete the duties of a telecommunications service technician and provide the foundational basic skills and knowledge required to effectively perform the installation and maintenance job duties and functions. Introduces fiber optic transmissions and cable repair. Pre-requisite: Consent of Instructor. Lecture: 1.0 credit (15 contact hours), Lab: 2.0 credits (60 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

ELT 234(3) Course ID:000521

Computer Hardware Maintenance
Covers maintenance of the personal computer with an emphasis on installation, upgradation, and configuration of computer hardware. Covers network and Internet access, internal addressing, architecture, interrupts complete PC construction and basic troubleshooting. When combined with ELT 232, this course will help prepare students to take CompTIA A+ certification tests. Pre-requisite: (Computer literacy course or demonstrate competency) or consent of instructor. Lecture: 2.0 credits (30 contact hours), Laboratory: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

ELT 240(6) Course ID:004650

Communications Electronics
Provides the theory of AM and FM, RF communications, transmission, reception, multiplexing, and modern data communications. Pre-requisite: (ELT 220 and ELT 214) or Consent of Instructor. Lecture: 4.0 credits (60 contact hours), Lab: 2.0 credits (60 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

ELT 244(4) Course ID:000644

Instructor Consent Required
Electrical Machinery and Controls
Covers the study of theory and utilization of electrical motors and generators, including AC and DC motors and drives. Includes theory and utilization of limit switches, solenoids, relays, contactors, and solid state devices in control circuits. Provides application of digital and analog control techniques, ladder logic, and programming techniques to industrial and manufacturing processes. Pre-requisite: Consent of instructor. Lecture: 3.0 credits (45 contact hours), Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

ELT 250(4) Course ID:000657

Programmable Logic Controllers
Covers the study of Programmable Logic Controllers with an emphasis on the function and use of PLCs in an industrial environment. Pre-requisite: ELT 244 or Consent of instructor. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

ELT 260(5) Course ID:004652

Instructor Consent Required
Robotics and Industrial Automation
Introduces theory of robots including terminology, components, and basic programming. Provides theory and application of servo and non-servo robots. Includes robot types, controllers, manipulators, and basic robotic programming. Provides the theory and operation of flexible and computer-integrated manufacturing and control systems. Provides the opportunity to develop, set up work cells, and integrate the work cells into a total computer-integrated manufacturing system at a beginning level. Pre-requisite: Consent of Instructor. Lecture: 3.0 credits (45 contact hours), Lab: 2.0 credits (60 contact hours).

Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

ELT 264(4) Course ID:000691

Mechanical Design
Covers studies techniques associated with the design of machine elements, including structural elements subjected to combined stresses resulting from shear or torsion coupled with axial and bending loadings. Includes material treatments, failure theories, failure prevention, and steady and variable (fatigue) elements, including rotating shafts, pressure vessels, power screws, and attachment schemes. Pre-requisite: (ELT 201 and PHY 211) or Consent of Instructor. Lecture: 4.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical

ELT 265(3) Course ID:000697

Applied Fluid Power
Covers the fundamental types of hydraulic and pneumatic devices and circuits used in industry. Includes basic fluid mechanics, industrial hydraulic components, pneumatic components, circuit design and analysis, electrical control of fluid power circuits, and fluid power maintenance and safety. Lecture: 2.0 credits (30 contact hours), Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

ELT 280(1) Course ID:006806

Engineering and Electronics Technology Capstone
Serves as the capstone course for the Engineering and Electronics Technology degree program and all of its concentrations. Integrates prior learning outcomes into a single integrated learning experience. Includes an exit exam that all program graduates must take. Pre-requisite: (ELT 120 and ELT 210) or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
Attributes: Technical

ELT 290(1 - 4) Course ID:000742

Selected Topics in Engineering Technology: (Topic)
Offers selected topics in engineering technology, due to rapidly changing technology or in response to local needs. Includes various topics semester to semester at the discretion of the instructor. Course may be repeated twice or to a maximum of four credit hours. Pre-requisite: Consent of instructor. Lecture: 1.0-4.0 credit hours (15- 60 contact hours), Laboratory: 0-3.0 credit hours (0-45 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

ELT 295(1 - 2) Course ID:000746

Instructor Consent Required
Independent Problems
Provides an objective for independent study for engineering and electronics technology students using a problem or special project approved by the instructor. This course may be repeated twice or to a maximum of four credit hours. Pre-requisite: Consent of instructor. Lecture: 1.0 - 2.0 credits (15- 30 contact hours), Laboratory: 1.0 - 2.0 (30-60 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

ELT 1100(1) Course ID:005638

Basic Electricity
Introduces basic DC circuits, specifically safety, basic test equipment, electrical resistance and Ohm's law. Pre-requisite: (MAT 065 or equivalent placement level) or Consent of Instructor. Lecture: 0.6 credits (9 contact hours), Lab: 0.4 credits (12 contact hours).

Components: Laboratory, Lecture

ELT 1101(2) Course ID:005639

Series and Parallel Circuits
Introduces basic DC circuits, specifically series and parallel circuits. Emphasizes design, construction, and troubleshooting of simple DC circuits in laboratory exercises. Pre-requisite: (ELT 1101 with a grade of C or better) or Consent of Instructor. Lecture: 0.6 credits (9 contact hours), Lab: 0.4 credits (12 contact hours).

Components: Laboratory, Lecture

ELT 1103(1) Course ID:005640

Introductory Circuit Analysis
Introduces basic DC circuits, specifically series-parallel circuit analysis techniques. Emphasizes design, construction, and troubleshooting of simple DC circuits in laboratory exercises. Pre-requisite: (ELT 1102 with a grade of C or better) or Consent of Instructor. Lecture: 0.6 credits (9 contact hours), Lab: 0.4 credits (12 contact hours).

Components: Laboratory, Lecture
ELT 1104(1) Course ID:005641
Magnetism and Alternating Current
Introduces basic AC circuits, specifically introductory magnetism and basic AC theory. Emphasizes design, construction, and troubleshooting of simple AC circuits in laboratory exercises. Pre-requisite: (ELT 1103 with a grade of C or better) or Consent of Instructor. Lecture: 0.6 credits (9 contact hours). Lab: 0.4 credits (12 contact hours).
Components: Laboratory, Lecture

ELT 1105(1) Course ID:005642
Capacitance and Inductance
Introduces basic AC circuits, specifically capacitance, inductance and transformer principles. Emphasizes design, construction, and troubleshooting of simple AC circuits in laboratory exercises. Pre-requisite: (ELT 1104 with a grade of C or better) or Consent of Instructor. Lecture: 0.6 credits (9 contact hours). Lab: 0.4 credits (12 contact hours).
Components: Laboratory, Lecture

ELT 1201(1) Course ID:005648
Instructor Consent Required
Digital Basics
Introduces basic digital circuits, specifically number systems and input output functions of gates and circuits. Pre-requisite: Consent of Instructor. Lecture: 0.66 credits (10 contact hours). Lab: 0.34 credits (10 contact hours).
Components: Laboratory, Lecture

ELT 1202(1) Course ID:005649
Logic Circuit Design
Introduces design methods for basic digital circuits. Pre-requisite: (ELT 1201 with a grade of C or better) or Consent of Instructor. Lecture: 0.67 credits (10 contact hours). Lab: 0.33 credits (10 contact hours).
Components: Laboratory, Lecture

ELT 1203(1) Course ID:005650
Logic Circuit Components and Troubleshooting
Covers construction, troubleshooting and testing of logic circuits. Pre-requisite: (ELT 1201 with a grade of C or better) or Consent of Instructor. Lecture: 0.67 credits (10 contact hours). Lab: 0.33 credits (10 contact hours).
Components: Laboratory, Lecture

EMS
EMS 105(6) Course ID:007303
Emergency Medical Technician - EMT
Provides the first level of training in the career structure of Emergency Medical Services. Integrates didactic course material and the lab component necessary for the delivery of entry-level emergency medical care to individuals who are experiencing a disruption in normal body functions due to illness and/or injury and require intervention to prevent morbidity and mortality. Prepares the student to sit for the National Registry EMT examination that is required for Kentucky certification as an EMT. Focuses on basic anatomy and physiology, scene and patient assessment, airway and ventilation, cardiovascular and body systems support, motion limiting devices, wound and fracture management, administration of basic patient medications, extirpation, transportation, and patient monitoring as well as medical/legal aspects and ambulance operations. Includes a minimum twenty-four (24) hour clinical observation in the emergency department and/or on a state licensed ambulance service. Pre-requisite 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 electrocardiograms need to be performed. Integrates comprehensive knowledge of the anatomy of the heart including conduction pathways, circulatory system, and mechanical function. Presents the medical terminology, pathophysiology related to cardiac crisis, arrhythmia recognition and 12-lead interpretation. Pre-requisite: Reading, English, and Mathematics assessment exam scores above KCTCS developmental level or successful completion of the prescribed developmental courses. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (45 contact hours). Clinical: 1.0 credit (45 contact hours).
Components: Clinical, Laboratory, Lecture Attributes: Technical

EMS 200(4) Course ID:007304
Introduction to Paramedicine
Integrates comprehensive knowledge of EMS Systems including: safety and wellness, communications, medical/legal issues, life span parameters, public health, medical terminology, pathophysiology, anatomy and physiology, critical thinking, and physical assessment and research to improve the health and well-being of individuals. Pre-requisite: EMS 105 or FRS 2061 or current unrestricted state certification or validated National Registry status. EMT eligible and Paramedic Program Admission. AHS 115 or CLA 131 Or Consent of Instructor. BIO 135 Or Consent of Instructor. Co-requisite: EMS 211. Lecture: 4.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

EMS 210(3) Course ID:007305
Emergency Pharmacology
Introduces students to the paramedic’s role and responsibilities of medication administration and the basic principles of pharmacology. Presents introductory core concepts of pharmacology including drug regulations, classifications, schedules, categories, delivery systems, calculations, and drug administration. Covers core concepts of emergency clinical pharmacology including major body systems, illness and injury, and methods drugs are used therapeutically to manage affected individuals. Integrates appropriate anatomy and physiology, medical terminology, and ethical and legal behaviors. Pre-requisite: EMS 200. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

EMS 211(2) Course ID:007306
Fundamentals Lab
Encourages both an individual and group approach to simulated patient care in the laboratory setting. Includes fundamental skill sets such as patient assessment, airway and ventilation, and IV and fluid therapy. Co-requisite: EMS 200. Lab: 2.0 credits (90 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 (60 contact hours).
Components: Clinical Attributes: Technical

EMS 220(3) Course ID:007308
Cardiovascular Emergencies
Provides a detailed study of cardiovascular emergencies and the assessment and management of patients requiring critical intervention. Includes anatomy and physiology, medical terminology, pathophysiology related to cardiac crisis, arrhythmia recognition and 12-lead ECG for field diagnosis, as well as pharmacological and electrical interventions. Pre-requisite: EMS 210 and EMS 211. Co-requisite: EMS 221. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

EMS 221(1) Course ID:007309
Cardiac and Trauma Lab
Designed to encourage both an individual and group approach to simulated patient care in the laboratory setting. Includes fundamental skill sets and the addition of cardiovascular and trauma emergency patient care and management. Co-requisite: EMS 220 and EMS 230. Lab: 1.0 credit (45 contact hours).
Components: Laboratory Attributes: Technical

EMS 225(1) Course ID:007310
Clinical Experience II
Provides the opportunity for application of didactic knowledge, psychomotor skills, and laboratory instruction with the realities of patient care in the hospital setting. Supervised by a registered nurse, nurse practitioner, physician, or paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program with a focus on the emergency department, operating room, and respiratory care. Pre-requisite: EMS 215. Clinical: 1.0 credit (60 contact hours).
Components: Clinical Attributes: Technical

EMS 230(4) Course ID:007311
Traumatic Emergencies
Presents the advanced concepts of out-of-hospital trauma care and critical thinking activities leading to formulation of a field impression and implementation of an appropriate treatment plan and scene management. Includes the 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, gynecology, musculoskeletal system, and the eyes, ears, nose, and throat. Co-requisite: EMS 231. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
EMS 250(3) Course ID:007315
Medical Emergencies II
Provides an understanding of the anatomic structures, physiology, and pathophysiology encountered during assessment and the provision of care for medical emergencies encompassing infectious disease including HIV/AIDS, the endocrine system, psychiatric conditions, toxicology, and hematology. Pre-requisite: EMS 240. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
EMS 260(3) Course ID:007316
Special Populations
Provides the opportunity to develop special knowledge and skills necessary to assess and manage ill and or injured patients across the human life span. Focuses on the acquisition of clinical knowledge and skills in diverse populations that include obstetrics, neonatology, pediatrics, geriatrics, and special challenge topics. Pre-requisite: EMS 250. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
EMS 270(1) Course ID:007317
EMS Operations
Provides knowledge necessary to safely manage multi-casualty incidents and rescue situations, utilize air medical resources, identify hazardous materials, perform vehicle extrication, and minimize the associated risks related to terrorism and disaster. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Technical
EMS 275(1) Course ID:007318
Seminar in Advanced Life Support (ALS)
Prepares 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- based format where principles of assessment and intervention are applied in a team setting. Pre-requisite: EMS 225. Lab: 1.0 credit (45 contact hours).
Components: Laboratory
Attributes: Technical
EMS 285(5 - 6) Course ID:007319
Field Internship & Summation
Provides the opportunity for application of didactic knowledge, psychomotor skills, and clinical instruction with the realities of being the team leader delivering advanced patient care in the field setting. Supervised by a paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program. Includes 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 090(3) Course ID:000464
Foundations of College Writing I
Introduces students to writing as a process with an emphasis on paragraph-length assignments and writing in response to reading. Stresses basic conventions of standard English as these apply to students' own work as well as the use of technology to produce and share writing. Pre-requisite: Placement by KCTCS assessment and placement policy. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing, Course Also Offered in Modules
ENC 091(3) Course ID:000465
Foundations of College Writing II
Applies writing as a process with instruction in intermediate writing skills and technology. Stresses organization, idea development through critical thinking, and editorial improvement through multi-paragraph 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 and Writing, Course Also Offered in Modules
ENC 092(3) Course ID:000466
Introduction to Research
Provides practice in the writing process, stressing the conventions of standard written English. Pre-requisite: As determined by KCTCS Placement Policy or successful completion of ENC 090. Lecture: .25 credits (3.75 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing
ENG 100(2) Course ID:004574
English Workshop
Provides parallel and supplemental review of English skills needed for students with an English ACT of 18 or 19 or a Compass placement test score between 70-80 who are also enrolled in ENG 101. If these students withdraw from ENG 100, they must also withdraw from ENG 101. Credit cannot be received by special exam. Pre-requisite: Placement by KCTCS Assessment and Placement Policy. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Other, Supplemental English/Writing
English Composition
ENC 0911(0.75) Course ID:006750
Intermediate Grammar
Introduces intermediate writing skills and editorial improvement, stressing the conventions of standard written English. Pre-requisite: As determined by KCTCS Placement Policy or successful completion of ENC 090. Lecture 0.75 credits (11.25 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing
ENC 0912(1) Course ID:006751
Composition Strategies
Provides practice in the writing process, stressing organization, idea development, and editorial improvement. Pre-requisite: As determined by KCTCS Placement Policy or successful completion of ENC 0911. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing
ENC 0913(0.25) Course ID:006752
Introduction to Research
Introduces basic research and documentation through writing in response to reading. Pre-requisite: As determined by KCTCS Placement Policy or successful completion of ENC 0912. Lecture: .25 credits (3.75 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing
ENC 0914(1) Course ID:006753
Writing as Process
Provides practice in the writing process, stressing organization, idea development, and editorial improvement. Pre-requisite: As determined by KCTCS Placement Policy or successful completion of ENC 0913. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing
<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Attributes</th>
<th>Components</th>
<th>Lecture Hours</th>
<th>Contact Hours</th>
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<tr>
<td>00467</td>
<td>ENG 101(3) Writing I</td>
<td>Attributes: AH - Arts and Humanities</td>
<td>Components: Lecture Attributes: WC - Written Communication, Course Also Offered in Modules</td>
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<td>00468</td>
<td>ENG 102(3) Writing II</td>
<td>Attributes: Cultural Studies, AH - Arts and Humanities</td>
<td>Components: Lecture Attributes: WC - Written Communication, Course Also Offered in Modules</td>
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<td>00469</td>
<td>ENG 105(3) Instructor Consent Required Writing: An Accelerated Course</td>
<td>Attributes: Other</td>
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<td>016136</td>
<td>ENG 107(3) Writing Craft: Introduction to Imaginative Writing</td>
<td>Attributes: AH - Arts and Humanities, University Course (University of Kentucky)</td>
<td>Components: Lecture Attributes: AH - Arts and Humanities</td>
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<td>00275</td>
<td>ENG 135(3) Greek and Roman Mythology in Translation</td>
<td>Attributes: Other</td>
<td>Components: Lecture Attributes: Cultural Studies, AH - Arts and Humanities</td>
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<tr>
<td>00470</td>
<td>ENG 161(3) Introduction to Literature</td>
<td>Attributes: AH - Arts and Humanities</td>
<td>Components: Lecture Attributes: AH - Arts and Humanities</td>
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<td>016988</td>
<td>ENG 190(3) Introduction to Dystopian Literature and Film</td>
<td>Attributes: AH - Arts and Humanities</td>
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<td>00472</td>
<td>ENG 203(3) Business Writing</td>
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<td>00474</td>
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<td>00477</td>
<td>ENG 207(3) Creative Writing: (Subtitle Required)</td>
<td>Attributes: Other</td>
<td>Components: Lecture Attributes: Other</td>
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<tr>
<td>00479</td>
<td>ENG 221(3) Survey of Western Literature from the Greeks</td>
<td>Attributes: AH - Arts and Humanities</td>
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<td>00481</td>
<td>ENG 222(3) Survey of English Literature II</td>
<td>Attributes: AH - Arts and Humanities</td>
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<td>00483</td>
<td>ENG 223(3) Literature and Theme (subtitle required)</td>
<td>Attributes: AH - Arts and Humanities</td>
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<td>004902</td>
<td>ENG 231(3) Literature and Genre (Subtitle required)</td>
<td>Attributes: AH - Arts and Humanities</td>
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<td>004903</td>
<td>ENG 232(3) Literature and Place (Subtitle required)</td>
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<td>004904</td>
<td>ENG 233(3) Literature and Identities (Subtitle required)</td>
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<td>004905</td>
<td>ENG 234(3) Introduction to Women's Literature</td>
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<td>00483</td>
<td>ENG 251(3) Survey of American Literature I</td>
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<td>00485</td>
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<td>00487</td>
<td>ENG 261(3) Survey of Western Literature from the Greeks Through the Renaissance</td>
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<td>00489</td>
<td>ENG 262(3) Survey of Western Literature from 1660 to the Present</td>
<td>Attributes: AH - Arts and Humanities</td>
<td>Components: Lecture Attributes: AH - Arts and Humanities</td>
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</tbody>
</table>
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
Course Equivalents: HUM 281
Attributes: AH - Arts and Humanities

ENG 282(3)  Course ID:005429
International Film Studies
Enhances student awareness of how cinema has been used as a multifaceted tool for observing and analyzing various aspects of a broad range of societies. Includes critical analysis and interpretation of films from various cultures. Explores the films' countries of origin and the cinematic impacts upon the society and the world. Lecture: 3 credits (45 contact hours).
Components: Lecture
Course Equivalents: HUM 282
Attributes: Cultural Studies, AH - Arts and Humanities

ENG 299(1 - 3)  Course ID:005345
Special Topics in English
Examines selected topics in English. Includes, but not limited to, individual authors, specified genres, and defined eras. Pre-requisite: ENG 101 or consent of instructor. Lecture: 1 - 3 credits (15-45 contact hours).
Components: Lecture
Attributes: Other

ENM 1013(0.75)  Course ID:005789
Writing to Persuade
Focuses on academic writing. Provides review and instruction in formal academic writing conventions, at the work, sentence, paragraph and essay levels. Pre-requisite: ENG 1012. Lecture: 0.75 credits (11.25 contact hours)
Components: Lecture

ENM 1014(0.75)  Course ID:005790
Writing with Sources
Focuses on academic writing. Provides instruction in reading critically, thinking logically, responding to texts, addressing specific audiences, researching and documenting sources. Pre-requisite: ENG 1013. Lecture: 0.75 credits (11.25 contact hours)
Components: Lecture

ENM 1021(1)  Course ID:005791
The Language of Argument
Emphasizes argumentative writing. Provides further instruction in argumentation strategies and concepts, leading to the planning and drafting of a preliminary argumentative essay. Pre-requisite: ENG 101 or ENG 1014. Lecture: 1.0 credits (15 contact hours)
Components: Lecture

ENM 1022(1)  Course ID:005792
Argument Style and Design
Emphasizes argumentative writing. Provides instruction and practice in the primary elements of academic writing style, including word choice, evidence selection and organization. Pre-requisite: ENG 1021. Lecture: 1 credit (15 contact hours)
Components: Lecture

ENM 1023(1)  Course ID:005793
Research and Argument
Emphasizes argumentative writing. Provides instruction in researching, proposing and revising an argumentative position, gathering and synthesizing research findings in support and documenting sources appropriately. Pre-requisite: ENG 1022. Lecture: 1 credit (15 contact hours)
Components: Lecture

ENM 1024(0.75)  Course ID:005794
Writing with Sources
Focuses on academic writing. Provides instruction in reading critically, thinking logically, responding to texts, addressing specific audiences, researching and documenting sources. Pre-requisite: ENG 1013. Lecture: 0.75 credits (11.25 contact hours)
Components: Lecture
Attributes: Technical

ENM Energy Management

ENM 1018(3)  Course ID:007242
Energy Industry Fundamentals
Investigates competencies required for employment by various industries that manufacture energy sources. Introduces students to methods of power production, power distribution, and physics principles that are associated with both, and addresses competencies identified by the Center for Energy Workforce Development (CEWD) organization needed for power industries. Qualifies the student to take the CEWD Energy Industry Fundamentals Certification exam. Lecture/Lab: 9.0 credits (150 contact hours)
Components: Lecture
Attributes: Technical

ENM 200(3)  Course ID:007219
Commercial Energy Analysis
Examines ways to improve the energy efficiency of commercial buildings. Emphasizes the building envelope, lighting, HVAC, motors, appliances, water, electrical, and compressed air systems and their controls with a focus on an energy management system. Examines energy savings and reductions in operational expenses, commercial energy compliance software will be used. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

ENM 210(3)  Course ID:007220
Smart Grid Applications
Introduces students to the components needed to renovate the current vertical structured power grid to a smart highway structure power grid that will allow energy to flow in different directions. Focuses on the application of different components within a smart grid system and how they integrate and communicate with each other for smooth transmission of electricity. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

ENM 230(3)  Course ID:007221
Building Automation
Introduces students to the components involved in a building automated system (BAS). Investigates the communication and components contained in an integrated building system that controls various components of a building system. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

ENM 250(3)  Course ID:007222
Regulatory and Environmental Issues in Energy Management
Examines the management of corporations as it relates to sustainability. Includes an overview of energy technology, energy resources, and emerging future energy technologies coupled with social and environmentally related legislation and its effect on corporations triple bottom line (people, profit, and planet. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

ENM 260(3)  Course ID:007223
Air Conditioning and Refrigeration Regulations
Analyzes the regulations associated with the 2008 EPA certification. Outlines techniques and regulations associated with EPA policies Complements other proposed energy management courses providing additional skills needed for energy efficient buildings. Qualifies students to take the LEED Green Associate exam upon completion of the course. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
ENM 1011(3)  Course ID:016357  Energy Industry Basics
Investigates competencies required for employment by various industries that manufacture energy sources. Addresses the competencies identified by the Center for Energy Workforce Development (CEWD) organization that are needed for energy industries. Combines with the other two modules to qualify students to take the CEWD Energy Industry Fundamentals (EIF) certification exam. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture

ENM 1012(3)  Course ID:016359  Power Creation and Distribution
Introduces students to methods of power production, power distribution, and physics principles that are associated with both. Addresses the competencies identified by the Center for Energy Workforce Development (CEWD) organization that are needed for energy industries. Combines with the other two modules to qualify students to take the CEWD Energy Industry Fundamentals (EIF) certification. Pre-requisite: ENM 1011. Lecture: 3 credits (45 contact hours).

Components: Lecture

ENM 1013(3)  Course ID:016422  Energy Emerging Technologies
Introduces students to emerging technologies and careers in the energy industry. Addresses the competencies identified by the Center for Energy Workforce Development (CEWD) organization that are needed for energy industries. Combines with the other two modules to qualify students to take the CEWD Energy Industry Fundamentals (EIF) certification. Pre-requisite: ENM 1011. Lecture: 3 credits (45 contact hours).

Components: Lecture

ENV Environmental Technology

ENV 110(4)  Course ID:001442  Introduction to Environmental Technology
Introduction to Environmental Technology provides a background in the historical and current developments in environmental problems, solutions, strategies, and regulations. Students explore the various aspects of water, land, and air pollution, pollution prevention and control, and the role of regulation at the local, state, and federal level. Lecture: 4 credits (60 contact hours).

Components: Lecture  Attributes: Technical

EQM Equine Management

EQM 100(3)  Course ID:004755  Introduction to Equine Studies
The intent of this course is to give students a general overview and basic understanding of the horse, its care and management. Course topics include identification, anatomy, health, nutrition, facility and equipment management. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (30 contact hours).

Components: Laboratory, Lecture  Attributes: Technical

EQM 120(3)  Course ID:004756  Introduction to Commercial Breeding Practices
Introduces prospective horse farm personnel to the breeding farm environment. Includes topics that relate to commercial breeding farm management and the necessary record keeping requirements. Pre-requisite: EQM 100 or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture  Attributes: Technical

EQM 140(2)  Course ID:004757  Equine Business Management I
Course in equine management that serves to introduce the student to private and commercial horse farm operations, economic trends in the horse industry, international marketplace, capital, credit and risk associated with the equine industry. Pre-requisite: EQM 100 and BA 160, or consent of instructor. Lecture: 2 credits (30 contact hours).

Components: Lecture  Attributes: Technical

EQM 240(2)  Course ID:004852  Equine Business Management II
This course is a continuation of Equine Business Management I. Topics of discussion include types of farm ownership, structure of the horse farm as a business, and evaluation of farm financial performance through production levels, employee management, management strategies, bloodstock value, cash flow and budgeting. Pre-requisite: EQM 140 and concurrent enrollment in or successful completion of ACC 201 and ECO 201, or consent of instructor. Lecture: 2 credits (30 contact hours).

Components: Lecture  Attributes: Technical

EQM 242(3)  Course ID:004758  Equine Law
This course explores the role of legal documents as they relate to commercial and recreational horse/horse farm owners. Topics discussed include review of current legislation governing horse activities, types of legal contracts, liability issues, and security interests. Pre-requisite: EQM 100 and BA 267, or consent of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture  Attributes: Technical

EQM 246(1)  Course ID:004759  Current Trends in the Equine Industry
Seminar course in the horse industry designed to provide students with the opportunity to investigate, evaluate and debate key issues confronting horse owners and horse industry participants. Students are encouraged to analyze controversial circumstances in the equine industry and provide insight and logical conclusion. Seminar topics may include such issues as equine adoption, slaughter, transportation, 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)  Course ID:004760  Equine Practicum
A supervised, field-based learning experience in the equine industry, including observation and proactive participation in affiliated environments. Students are required to analyze their experiences throughout the semester to develop career objectives and strong interpersonal, communication and leadership skills. Pre-requisite: EQM 240, EQM 242, and concurrent enrollment in or successful completion of EQM 246. Practicum: 3 credits (180 contact hours).

Components: Practicum  Attributes: Technical

EQS Equine Studies

EQS 101(3)  Course ID:007320  Introduction to the Thoroughbred
Provides a general overview and basic understanding of care and management of the thoroughbred, including identification registration information, conformation, equine behavior and equine facility design and management. Lecture: 3.0 credits (45 contact hours).

Components: Lecture  Attributes: Technical

EQS 103(1)  Course ID:005349  Racehorse Care
Introduces principles of care for racehorses in a race barn training environment with students learning industry accepted standards and techniques utilized in providing care for racehorses. Lecture: 1.0 credits (15 contact hours).

Components: Lecture  Attributes: Technical

EQS 104(3)  Course ID:007321  Racehorse Care Lab
Introduces principles of care for racehorses in a race barn training environment with students learning industry accepted standards and techniques while providing daily care for 1 or 2 racehorses. Pre-requisite or Co-requisite: EQS 103. Lab: 3.0 credits (135 contact hours).

Components: Laboratory  Attributes: Technical

EQS 110(3)  Course ID:005350  Basic Equine Physiology
Continues the study of equine care by examining the anatomy and physiology of equine body systems and applications of this knowledge to the raising, training and management of horses in general and racehorses in particular. Includes identification of three muscle fiber types; types, causes and symptoms of colic; thermoregulation; blood components and flow; upper and lower respiratory airway diseases and infectious neurological diseases. Pre-requisite Or Co-requisite: EQS 101 or consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture  Attributes: Technical

EQS 111(1)  Course ID:005351  Introduction to Riding Racehorses
Covers requirements for becoming a licensed professional jockey including physical, mental and emotional components, regulatory agency requirements and necessary life management skills. Includes the history of race riding, identification of important riders in history and noteworthy current riders. Lecture: 1 credit (15 contact hours).

Components: Lecture  Attributes: Technical

EQS 112(4)  Course ID:005352  Instructor Consent Required
Racehorse Riding Skills I
Introduces basic horse riding skills and their application to racehorse riding. Presents and requires daily practice of proper rider position at walk, trot, canter, on turn and in straights. Includes discussion and round pen applications of center of gravity of horse, center of gravity of rider and center of gravity of the combination of horse and rider. Teaches proper techniques for cooling out after exercise and or racing. Equine Studies is a selective admission program and enrollment in this course is dependent upon acceptance into the Equine Studies program. Pre-requisite: EQS 111 and Consent of Instructor. Pre-requisite Or Co-requisite: EQS 103 and EQS 104. Lecture/Lab: 4.0 credits (150 contact hours).

Components: Lecture  Attributes: Technical

EQS 113(4)  Course ID:005353  Instructor Consent Required
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: 3.0 credits (45 contact hours).

Components: Lecture  Attributes: Technical

EQS 118(3)  Course ID:005803  Equine Bloodstock
Emphasizes skills in comprehending a sales page, marketing and preparing horses for sales, breeding and bloodline interpretation, and prospect analysis. Lecture: 3 credits.

Components: Lecture  Attributes: Technical
EQS 121(1) Course ID:005497
Introduction to Breaking and Training Racehorses
Introduces the basic requirements for becoming a licensed racehorse trainer or other equine care worker. Includes historical contributions of prominent owners, breeders, trainers and racehorses that significantly impacted the history of their respective breed. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical

EQS 122(3) Course ID:005498
Instructor Consent Required
Yearling Breaking and Management
Introduces the basics of managing and training weanling and yearling racehorses including conformation, movement, pedigree analysis; pre-purchase examinations and practical application of pressure-release techniques of breaking and training young racehorses. Pre-requisite: EQS 121 and permission of instructor. Lecture: 1 credit (15 contact hours). Laboratory: 2 credits (90 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

EQS 123(3) Course ID:005499
Breaking and Prepping Two-Year-Olds
Covers basics of managing racehorses through their yearling to 2-year old transition. Includes acquiring yearlings and/or two-year olds, breaking, prepping for in-training sales and/or racing, concepts of nutrition for growing equine athletes, cardiovascular conditioning, muscle fitness, sale presentation and injuries of two-year olds in race training. Pre-requisite Or Co-requisite: EQS 103: Racehorse Care EQS 104: Racehorse Care Lab. Lecture/Lab: 3.0 credits (105 contact hours).
Components: Lecture
Attributes: Technical

EQS 125(4) Course ID:005804
Equine Nutrition
Presents principles of nutritional management as it relates to the overall health and performance of the horse. Pre-requisite: EQS 110 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EQS 130(3) Course ID:005354
Introduction to the Racing Industry
Introduces students to racing industry organizations, personnel, facilities and the rules of racing. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EQS 200(3) Course ID:005500
Lameness in Racehorses
Expands on basic equine anatomy with emphasis on normal function of front and rear legs and methods of evaluating deviations from normal function presented as lameness in racehorses. Also discusses response to injury, forms of therapy and training methods for horses returning from injury. Pre-requisite: EQS 110 or permission of instructor. Co-requisite: Concurrent enrollment in EQS 110. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EQS 212(3) Course ID:005503
Racehorse Riding Principles
Builds on basic skills learned in EQS 113 and adds principles of riding racehorses on a training track in company of other horses and riders, teaching horses to pass others, working in company, proper use of riding crop and breaking from a starting gate. Pre-requisite: EQS 113 and permission of instructor. Lecture: 1 credit (15 contact hours). Laboratory: 2 credits (90 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

EQS 213(2) Course ID:005504
Instructor Consent Required
Racehorse Riding Techniques
Teaches advanced fundamentals of race riding such as breezing racehorses alone and in company, using proper riding techniques at each point in a race, breaking horses from the starting gate, and practicing race riding skills in training races. Pre-requisite: EQS 212 and consent of instructor. Lecture/Lab: 2.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical

EQS 215(3) Course ID:005505
Instructor Consent Required
Life Skills for Jockeys
Prepares student for life as a professional jockey. Includes integration of principles of nutrition into an eating plan that will maintain weight and health. Introduces concepts of practical financial management, insurance and retirement planning on a jockey's salary. Ties together basic riding skills with interpersonal skills necessary for a successful life as a professional jockey. Pre-requisite: EQS 212 and permission of instructor. Co-requisite: EQS 212. Lecture: 3 credits (45 contact hours).
Components: Lecture

EQS 223(4) Course ID:005507
Training Principles and Practices
Examines techniques of training racehorses and compares effectiveness of different racehorse training methods including interval training, Quarter Horse training, steeplechase training and standard Thoroughbred training. Includes shoeing, veterinary examinations of racehorses and alternatives to training methods. Requires students to develop a training plan for assigned North American Racing Academy (NARA) racehorses, supervise first year NARA student “employees,” participate in NARA training races and develop a plan to communicate with owners regarding the status of horses in training. Pre-requisite: EQS 123. Lecture/Lab: 4.0 credit (150 contact hours).
Components: Lecture
Attributes: Technical

EQS 225(3) Course ID:005508
Instructor Consent Required
Life Skills for Horsemanship
Explores concepts of goal setting, time management, marketing racehorses, marketing racing services, managing personal relationships as an equine professional, communication skills unique to equine professionals plus personal and family health and wellness plans. Prerequisite: EQS 222 and permission of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture

EQS 240(3) Course ID:007322
Equine Legal and Business Principles
Provides legal insights and practical tips for a successful horse business. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EQS 299(1 - 9) Course ID:005626
Equine Studies Cooperative Education
Provides a planned and evaluated work experience related to the student’s educational objective for which the student receives both financial remuneration and academic credit. While the maximum amount of credit granted for Equine Cooperative Education experience varies by curriculum, the amount may never exceed nine hours in Associate in Applied Science Degree, diploma, or certificate program. Is available only to students enrolled in Associate of Applied Science in Equine Studies, Equine Studies Diploma and certificate program that list Equine Cooperative Education as an approved course. Pre-requisite: Consent of Instructor. Co-op: 1.0 - 9.0 credits (60 - 540 contact hours).
Components: Co-Op
Attributes: Technical

ESL 101(4) 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. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Remedial - Reading

ESL 011(4) Course ID:005308
Beginning Listening and Speaking
High-beginning level students will improve the ability to speak and understand English in simple everyday and academic situations. The course will provide practice in pronunciation and basic oral communication functions. Beginning academic listening and speaking skills will also be covered. Students will be recommended to this course based on the ESL placement examination. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Developmental/Remedial Learning Skills

ESL 012(4) Course ID:005230
Intermediate Listening and Speaking
Low-intermediate level ESL students will improve comprehension and communication in English on a variety of everyday topics and in the academic setting. Students will develop and practice techniques for greater comprehension and confidence in oral expression. Practice will also be provided in pronunciation and intonation. Students will be recommended to this course based on the ESL placement examination or through completion of ESL 11. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Developmental/Remedial Learning Skills

ESL 013(4) Course ID:005307
Advanced Listening and Speaking
High-intermediate level ESL students will improve comprehension and communication in both social and academic settings. Instruction will include improving listening skills for academic note taking and small group discussion. Students will be expected to lead and share in class discussions based on reading and authentic listening materials. Students will also present orally in front of the class. Students will be recommended to this course based on the ESL placement examination or through completion of ESL 12. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Developmental/Remedial Learning Skills

ESL 020(4) Course ID:005216
Reading Improvement and Vocabulary Development
Low-intermediate level students will review fundamental reading skills, learn and practice higher order reading skills, expand vocabulary and increase reading efficiency as they interact with level-appropriate texts. Pre-requisite: placement test. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Remedial - Reading

ESL 030(4) Course ID:005078
College Reading and Vocabulary Development for High-Intermediate Non-Native English Speakers
High-intermediate level ESL students will master fundamental reading skills, improve critical reading, and further vocabulary development. Students will be introduced to a variety of genres, such as newspaper articles and essays, poems, short stories, charts, graphs and college-level content textbooks. Through the selected readings, this course will foster cultural awareness, comprehension, and interaction. The readings and activities introduced in the course will allow students to engage in meaningful dialogue, and in the process, refine their English skills. Pre-requisite: ESL 020 or placement test. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Developmental/Remedial Learning Skills
ESL 031(3) Course ID:004037
Beginning Conversation for Non-Native English Speakers
Beginning level ESL students will learn basic conversation and practice basic sounds and intonation patterns. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Developmental/Remedial Learning Skills, Course Also Offered in Modules

ESL 051(3) Course ID:004043
Introduction to College Reading for Non-Native English Speakers
Beginning-level students will acquire or strengthen fundamental reading skills and expand vocabulary as they interact with level-appropriate texts. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - Reading

ESL 052(3) Course ID:004044
Improved College Reading for Low-Intermediate Non-native English Speakers
Intermediate-level students will review fundamental reading skills, learn and practice higher order reading skills, expand vocabulary and increase reading efficiency as they interact with level-appropriate texts. Pre-requisite: ESL 51. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - Reading

ESL 053(3) Course ID:004045
High-Intermediate Reading for Non-native English Speakers
High-intermediate level ESL students will master fundamental reading skills. They will be introduced to a variety of genres, such as newspaper articles and essays, poems, short stories, charts, graphs and many other. In addition, this course will foster cultural awareness, understanding and interaction. Through the readings and activities introduced in the course students will engage in meaningful dialogue, and in the process, refine their English skills. Pre-requisite: ESL 052 or placement test. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - Reading

ESL 061(4) Course ID:004046
Foundations of College Writing I for Non-Native English Speakers
Beginning level ESL students are introduced to composition with an emphasis on clarity, organization, development and correctness. Comprehensive review of mechanics, grammar and spelling as these apply to their own writing is also addressed in this course. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing

ESL 062(4) Course ID:004047
Foundations of College Writing II for Non-Native English Speakers
Low-intermediate level ESL students continue to enhance their composition skills by receiving instruction in the following: the writing process, organization, multi-paragraph writings, editing, and critical reading. Grammar instruction focuses on key structures and provides a springboard for expanding students’ abilities in all language skills. Pre-requisite: ESL 61. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing

ESL 063(4) Course ID:004048
Foundations of College Writing III for Non-Native English Speakers
ESL 63 is designed to help students prepare for ENG 101. High-intermediate level ESL students continue to work on the writing process, editorial improvement and critical reading. Grammar instruction includes advanced grammatical points, subjunctive, modal auxiliaries, gerunds, infinitives, adjective and noun clauses. Pre-requisite: ESL 62 or placement test. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing

ESL 071(3) Course ID:007210
College Writing I for Non-Native Speakers
Introduces writing modes, including description, narration, process, and persuasion; presents methods of pre-writing; emphasizes development of thesis statements, topic support, and organization; describes basic concepts of verb tense and syntax. Credit is not given to students who have received credit for ESL 61. Pre-requisite: Placement According to KCTCS Assessment and Placement Policy. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing

ESL 072(3) Course ID:007046
College Writing II for Non-Native Speakers
Introduces writing modes, including description, narration, comparison and contrast, cause and effect, process, and persuasion; presents methods of pre-writing; emphasizes development of thesis statements, topic support, and organization; short essay organization is emphasized. A student cannot receive credit for both ESL 62 and ESL 72. Pre-requisite: Currently appropriate assessment scores and a writing sample or completion of ESL 71. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing

ESL 081(3) Course ID:007211
College Grammar I for Non-native Speakers
Introduces basic verb tenses, formation of questions, modals, clauses, and parts of speech to non-native speakers of English. Incorporates instructional methods that are designed for non-native speakers of English. Credit is not given to students who have received credit for ESL 61. Pre-requisite: Placement According to KCTCS Assessment and Placement Policy. Lecture: 3.0 credit hours (45 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing

ESL 082(3) Course ID:007047
College Grammar II for Non-Native Speakers
Introduces intermediate-level verb tenses, formation of questions, modal verbs, clauses, count and non-count nouns, and parts of speech to non-native speakers of English. Incorporates instructional methods that are designed for non-native speakers of English. A student cannot receive credit for both ESL 82 and ESL 62. Pre-requisite: Currently appropriate assessment scores or completion of ESL 81. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing

ESL 090(4) Course ID:005079
Beginning Writing
High-beginning level ESL students will learn composition skills by receiving instruction in the following: the writing process, organization, sentence development, paragraph writing, and editing. Basic instruction in grammar provided. Students will be recommended to this course based on the ESL placement examination. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing

ESL 091(4) Course ID:005080
Intermediate Writing for Non-Native English Speakers
Low-intermediate level ESL students will enhance their composition skills by receiving instruction in the following: the writing process, organization, multi-paragraph writings, editing, and critical reading. Basic instruction in grammar provided. Pre-requisite: placement test. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing

ESL 092(4) Course ID:005082
Advanced Writing for Non-Native English Speakers
ESL 92 is designed to help students prepare for ENG 101. High-intermediate level ESL students continue to work on the writing process, editorial improvement, and critical reading. Students will be introduced to documenting sources. Grammar instruction includes advanced grammatical points. Pre-requisite: ESL 91 or placement test. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Remedial - English and Writing

ESL 100(3) Course ID:016566
Listening for Academic Purposes
This course cultivates skills to improve academic listening performance for non-native speakers of English enrolled in American university classes. Special attention is given to lecture styles, note-taking, interpersonal communication skills, research projects and presentations. This course is designed to raise students listening skills so they can participate in academic settings with competencies similar to their native peers. Lecture: 3 credits.
Components: Lecture
Attributes: Enrichment ESL University Course (University of Kentucky)

ESL 110(3) Course ID:016517
Speaking for Academic Purposes
This course cultivates skills to improve academic speaking performance for non-native speakers of English enrolled in American university classes. Special attention is given to effective academic presentations, interpersonal communication skills, pronunciation and accent. This course is designed to raise students speaking skills so they can participate in academic settings with competencies similar to their native-speaker peers. Pre-requisite: KCTCS assessment instrument scores as shown in Mandatory Placement policy. Lecture: 3.0 credits (45 contact hours)
Components: Lecture
Attributes: Enrichment ESL University Course (University of Kentucky)

ESL 120 (3) Course ID:016568
Reading for Academic Purposes
This course cultivates skills to improve academic reading performance for non-native speakers of English enrolled in American university classes. Special attention is given to cross-disciplinary academic reading, reading rates and 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: Enrichment ESL University Course (University of Kentucky)

ESL 311(1) Course ID:007396
ESL Greetings & Farewells
Highlights greetings and introductions, giving and receiving personal information, and making plans and discussing the future. Introduces expressing the future using the verb “to go.” Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Developmental/Remedial Learning Skills
EST 101(3) Course ID:005324
Introduction to Energy Systems
Introduces energy generating systems including solar, wind, bioenergy, geothermal, hydroelectric, hydrogen-based, petroleum-based, coal, and nuclear. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EST 161(1) Course ID:017027
Hydrologic Geology Lab
Reinforces concepts covered in EST 160 Hydrologic Geology and provides activities to apply those concepts to real life situations. Includes mineral and rock identification, map interpretation, groundwater protection, erosion, and sediment control, stream dynamics and restoration. Pre-requisite or Co-requisite: If yes, list: EST 160 Hydrologic Geology or approval of the Environmental Science Technology Program Coordinator. Lab 1 credit (30 contact hours).
Components: Laboratory
Attributes: SL - Science, Technical

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:005495
Power Plant Thermodynamics
Introduces basic thermodynamic concepts and the applications of thermodynamics in a fossil-fired power plant. Pre-requisite: PHY 151 or higher. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EST 280(3) Course ID:005496
Capstone in Energy Systems
Serves as the capstone course for the Energy Systems Program by integrating prior learning into a single integrated learning experience. Requires planning, research, and completion of both individual and team-based reports based on real-world problems or projects in the Energy Systems field. Pre-requisite: ESP 213. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EST 220(3) Course ID:004749
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, acids, and pesticides. Methods to minimize or eliminate the sources and effects of pollutants are also explored. Pre-requisite or concurrent: EST 150, EST 160, CHE 105, and CHM 105 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EST 240(4) Course ID:004749
Sources and Effects of Air Pollution
This course provides an introduction to the study of ambient and indoor air pollution with an emphasis on sources, dispersion, and health and welfare effects of the major pollutants. Both regulatory and engineering controls of stationary and mobile sources are explored. A laboratory provides experience with sampling and analysis of air pollutants. Lecture: 3 credits (45 contact hours); Laboratory: 1 credit (30 contact hours). Pre-requisite: EST 150 and CIT 130, or equivalent, or consent of instructor.
Components: Laboratory, Lecture
Attributes: Technical

EST 250(3) Course ID:004750
Solid and Hazardous Waste Management
This course examines methods of managing solid and hazardous waste, with an emphasis on pollution prevention. Topics covered include relevant legislation, recycling, incineration, landfill operations, management of radioactive waste, remediation of waste sites and site worker health and safety. Pre-requisite: EST 150 and EST 160, or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

EST 250(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 solid, 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 280(2) Course ID:004752
Environmental Analysis Laboratory
A laboratory course which provides the fundamentals in analyzing environmental media. The course will provide students with laboratory experience in analyzing solid, 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 220.
Components: Laboratory
Attributes: Technical

EST 290(2) Course ID:017026
Selected Topics in Environmental Science Technology
A special project or experience in Environmental Science will be selected to enhance core material in the Environmental Science Technology program. It provides the student an opportunity for independent study or specialized instruction as approved by an instructor.
This course may be repeated to a maximum of 6 hours. Pre-requisite: Consent of EST Program Coordinator. Lecture: 1-3 credits (15-45 contact hours).
Components: Lecture
Attributes: Technical

EST 299(1 - 3) Course ID:004754
Instructor Consent Required

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 telecommunication installation experience. Pre-requisite: Basic physics/electricity courses are recommended but not required. Lecture: 4 credits (75 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

ETT 116(3) Course ID:004235
Fiber Optics Systems
Provides a technical level of understanding in the areas of networking connectivity, data communications concepts and communication protocols. Communications and networking concepts including hardware, software, and transmission media; access methods and protocols; and network configurations are addressed. Emphasis is on local area networks, and students will install a basic network. Pre-requisite: ETT 110 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical
<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Name</th>
<th>Description</th>
<th>Attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td>000747</td>
<td>FLK 280(3) Cultural Diversity in the United States</td>
<td>Focuses on understanding, interpretation, and appreciation of the multicultural nature of American society. Emphasizes on the varieties of cultural expression, customs and world view practiced by regional, ethnic, racial and sectarian cultures. Lecture: 3 credits (45 contact hours).</td>
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<tr>
<td>004780</td>
<td>FLM 112(4) Filmmaking: Treatment to Short Screen Play</td>
<td>Provides project-based instruction on the basics of filmmaking. Familiarizes students with the process of creating a film treatment and proposal, and writing and revising a screenplay. Co-requisite: (FLM 122 AND FLM 132 AND FLM 140) OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours).</td>
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<tr>
<td>016196</td>
<td>FLM 122(4) Filmmaking: Storyboard through Production</td>
<td>Provides project-based instruction on the basics of filmmaking. Familiarizes students with directing, lighting, set designing, and audio. Co-requisite: (FLM 112 AND FLM 132 AND FLM 140) OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours).</td>
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<tr>
<td>016197</td>
<td>FLM 122(4) Filmmaking: Editing through Distribution</td>
<td>Provides project-based instruction on the basics of filmmaking. Familiarizes students with directing, lighting, set designing, and audio. Co-requisite: (FLM 112 AND FLM 132 AND FLM 140) OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours).</td>
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<tr>
<td>016198</td>
<td>FLM 132(4) Filmmaking: Lab</td>
<td>Covers lab portion of all topics included in FLM 112, FLM 122, and FLM 132. Consists of guest lecturers, group projects and hands-on experience in film, ranging from pre-production and storyboards to post production. Co-requisite: (FLM 112 AND FLM 122 AND FLM 140) OR Consent of Instructor. Lecture: 4.0 credits (60 contact hours).</td>
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<tr>
<td>016199</td>
<td>FLM 140(2) Filmmaking: Lab</td>
<td>Covers lab portion of all topics included in FLM 112, FLM 122, and FLM 132. Consists of guest lecturers, group projects and hands-on experience in film, ranging from pre-production and storyboards to post production. Co-requisite: (FLM 112 AND FLM 122 AND FLM 132) OR Consent of Instructor. Lecture: 2.0 credits (60 contact hours).</td>
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<tr>
<td>000666</td>
<td>FAM 255(3) Human Sexuality: Development, Behavior, and Attitudes</td>
<td>Studies human sexuality, including the process of gender and attitudes, sexual response patterns, sexual behavior, and attitudes. Pre-requisite: 3.0 credit hours in social or behavioral science or consent of instructor. Lecture: 3 credits (45 contact hours).</td>
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<tr>
<td>00059</td>
<td>FAM 255(3) Child Development</td>
<td>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 in social or behavioral science or consent of instructor. Lecture: 3 credits (45 contact hours).</td>
<td>Attributes: Technical</td>
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<tr>
<td>000748</td>
<td>FAM 252(3) Introduction to Family Science</td>
<td>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 in social or behavioral science or consent of instructor. Lecture: 3 credit hours (45 contact hours).</td>
<td>Attributes: Technical</td>
</tr>
<tr>
<td>004780</td>
<td>FLK 280(3) Cultural Diversity in the United States</td>
<td>Focuses on understanding, interpretation, and appreciation of the multicultural nature of American society. Emphasizes on the varieties of cultural expression, customs and world view practiced by regional, ethnic, racial and sectarian cultures. Lecture: 3 credits (45 contact hours).</td>
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<tr>
<td>004780</td>
<td>FLM 280(3) Cinematography</td>
<td>Prepares students for careers in camera, directing and art design in the motion picture industry through introduction to composition, camera movement and prime lenses. Integrates classroom study of lens history and optics, as well as project-based, hands-on application of knowledge and practice. Demonstrates how lens selection and composition affects story development and viewer response. Pre-requisite: (FLM 112 AND FLM 122 AND FLM 132 AND FLM 140) OR Consent of Instructor. Lecture/Lab: 3.0 credits (76 contact hours).</td>
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<tr>
<td>001694</td>
<td>FVM 291(3) Film Boot Camp</td>
<td>Covers the organization and setup of a film production in the form of a film ‘boot camp.' Includes lecture from experts in the field. Provides real world experience for second year students in the roles of Cinematographer, Director of Photography, Producer, and Director. Focused on completion of a short film production. This course may be repeated two times for a maximum of 6 credits. Lecture: 1.0 credits (15 contact hours). Lab: 2.0 credits (60 contact hours).</td>
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<tr>
<td>001646</td>
<td>FPX 100(3) Fluid Power</td>
<td>Includes fluid power theory, component identification and application, schematic reading, and basic calculations related to pneumatic and hydraulic systems and their operations. Co-requisite: MX 101. Lecture: 3 credits (45 contact hours).</td>
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<tr>
<td>001645</td>
<td>FPX 101(2) Fluid Power Lab</td>
<td>Provides practical experiences in the study of fluid power theory, hydraulics and pneumatics component identification, schematic reading, and basic calculations related to pneumatic and hydraulic systems and their operations. Co-requisite: FXP 100 or Consent of Instructor. Laboratory: 2.0 credits (60 contact hours).</td>
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FPX 1002(0.3) Course ID:005674
Introduction to Hydraulic System Maintenance
Familiarizes the student with hydraulic fluids, reservoirs, and filters. Covers the methodologies required when servicing a typical hydraulic system. Includes a general discussion on the safe working practices required with fluid power systems. Pre-requisite: [FPX 1001 and FPX 1011] with a grade of C or better or Consent. Co-requisite: FPX 1012 or consent. Lecture: 0.3 credit (4.5 contact hours).
Components: Lecture

FPX 1003(0.4) Course ID:005675
Introduction to Pneumatic System Maintenance
Introduces pneumatic system maintenance. Covers the skills required to service modern pneumatic and air preparation systems. Includes a general discussion on the safe working practices required with fluid power systems. Co-requisite: FPX 1013 or Consent. Lecture: 0.4 credit (6.0 contact hours).
Components: Lecture

FPX 1004(1) Course ID:006542
Hydraulic System Components and Applications
Introduces the basic fundamentals of hydraulic component, system design, and operation. Covers higher level schematic layout and design as well as the specifics involved with the actual component selection. Provides an opportunity to design and build actual hydraulic circuits and then troubleshoot any faults that may be present in their design or construction. Includes a general discussion on the safe working practices required with fluid power systems. Co-requisite: FPX 1014 or Consent. Lecture: 1 credit (15 contact hours).
Components: Lecture

FPX 1005(1) Course ID:006543
Pneumatic Systems and Components
Introduces the basic fundamentals of pneumatic component and operation. Covers higher level schematic layout and design as well as the specifics involved with the actual component selection. Provides the opportunity to design and build actual pneumatic circuits and then troubleshoot any faults that may be present in their design or construction. Includes a general discussion on the safe working practices required with fluid power systems. Co-requisite: FPX 1015 or Consent. Lecture: 1 credit (15 contact hours).
Components: Lecture

FPX 1011(0.3) Course ID:005676
Introduction to Fluid Power Lab
Introduces the basic concepts of fluid power and discusses the application of those concepts in the development of hydraulic and pneumatic systems. Includes a general discussion on the safe working practices required with fluid power systems. Co-requisite: FPX 1001 or Consent. Lab: 0.3 credits (9 contact hours).
Components: Laboratory

FPX 1012(0.3) Course ID:005677
Introduction to Hydraulic System Maintenance Lab
Introduces pneumatic system maintenance. Familiarizes students with hydraulic fluids, reservoirs, and filters. Covers the methodologies required when servicing a typical hydraulic system. Includes a general discussion on the safe working practices required with fluid power systems. Co-requisite: FPX 1002 or Consent. Lab: 0.3 credit (9 contact hours).
Components: Laboratory

FPX 1013(0.3) Course ID:005678
Introduction to Pneumatic System Maintenance Lab
Introduces pneumatic system maintenance. Covers the skills required to service modern pneumatic and air preparation systems. Includes a general discussion of the safe working practices required with fluid power systems. Co-requisite: FPX 1003 or Consent. Lab: 0.3 credit (9 contact hours).
Components: Laboratory

FPX 1014(0.55) Course ID:006544
Hydraulic System Components and Applications Lab
Introduces basic fundamentals of hydraulic component, system design, and operation. Covers higher level schematic layout and design as well as the specifics involved with the actual component selection. Provides an opportunity to design and build actual hydraulic circuits and then troubleshoot any faults that may be present in their design or construction. Includes a general discussion of the safe working practices required with fluid power systems. Co-requisite: FPX 1004 or Consent. Lab: 0.56 credits (16.5 contact hours).
Components: Laboratory

FPX 1015(0.55) Course ID:006545
Pneumatic Systems and Components Lab
Introduces the application of basic fundamentals of pneumatic components and operation. Covers schematic layout and design as well as the specifics involved with the actual component selection. Provides the opportunity to design and build actual pneumatic circuits and then troubleshoot any faults that may be present in their design or construction. Includes a general discussion of the safe working practices required with fluid power systems. Lab component for FPX 1005. Co-requisite: FPX 1005 or Consent. Lab: 0.55 Contact Hours (16.5).
Components: Laboratory

FRE French Language and Literature
FRE 101(4) Course ID:000866
Elementary French I
Introduces basic modes of communication in French. Stresses speaking, listening, reading and writing as target skills. Emphasizes everyday language and presents an overview of the cultures of various Francophone countries. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Foreign Language, Cultural Studies

FRE 102(4) Course ID:000754
Elementary French II
Continues the study of basic French through grammar, reading, and oral practice. Stresses speaking, listening, reading and writing as target skills. Emphasizes everyday language and exploring the cultures of various Francophone countries. Pre-requisite: FRE 101. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Foreign Language, Cultural Studies

FRE 201(3) Course ID:000874
Intermediate French I
Focuses on developing listening, speaking, reading, and writing skills in French at the intermediate level with an emphasis on developing cultural competency. Pre-requisite: FRE 102 or two years of high school French and placement test. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Foreign Language, Cultural Studies

FRE 202(3) Course ID:000811
Intermediate French II
Continues FRE 201 with a focus on developing listening, speaking, reading, and writing skills in French at the intermediate level with an emphasis on developing cultural competency. Pre-requisite: FRE 201 or three years of high school French and placement test. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Foreign Language, Cultural Studies

FRS Fire/Rescue Science
FRS 101(3) Course ID:001466
Introduction to Fire Service
This course includes fire department organization, fire behavior, firefighter safety, personal protective equipment, portable fire extinguishers, fire hose, appliance and streams. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

FRS 102(3) Course ID:001467
Firefighters Basic Skills I
Includes ropes, ladders, aircraft rescue, forcible entry, first aid, bloodborne pathogens, emergency disaster planning, and CPR. Pre-requisite: FRS 101 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

FRS 103(3) Course ID:001468
Firefighters Basic Skills II
Includes building construction, wildland fire behavior, fire control, and ventilation. Pre-requisite: FRS 102 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

FRS 104(3) Course ID:001469
Firefighters Intermediate Skills I
Includes water supply, foam fire streams, fire alarms and communications, hazardous materials awareness, hazardous materials operations, sprinklers, and salvage and overhaul. Pre-requisite: FRS 103 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

FRS 105(3) Course ID:001470
Firefighters Intermediate Skills II
Includes fire department organization, fire behavior, personal protective equipment, fire hose, appliances and streams, ropes, forcible entry. Pre-requisite: FRS 103 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

FRS 201(3) Course ID:001471
Firefighters Advanced Skills I
Includes firefighter safety, rescue, ventilation ladders, fire control, and emergency disaster planning. Pre-requisite: FRS 103 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

FRS 202(3) Course ID:001472
Firefighters Advanced Skills II
Includes portable fire extinguishers, water supply, pump operations, foam fire streams, salvage, fire prevention, public education, and fire cause determination. Pre-requisite: FRS 104 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

FRS 203(3) Course ID:001473
Firefighters Advanced Skills II
Includes pump operations II, drivers training, overhaul, fire alarms and communications, sprinklers, and practicum. Pre-requisite: FRS 202 or Consent of Instructor. Lecture: 3 credits (90 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

FRS 204(3) Course ID:001474
EMT First Responder
EMT First Responder includes first responder (EMS). Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

FRS 205(5) Course ID:001475
Firefighter I
Includes incident safety officer, haz-mat tech., fire prevention, public education and fire cause determination II. Pre-requisite: FRS 202 or Consent of Instructor. Lecture: 5 credits (75 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
FYE 1001(0.3) Course ID: 007401
Self-Management Skills
Introduces students to strategies and resources to promote personal responsibility for self-management skills. NOTE: Students may not receive credit for both FYE 100 and FYE 105. Lecture: 0.3 credits (4.5 contact hours).
Components: Lecture
Attributes: Enrichment 1st Year Experience

FYE 1002(0.3) Course ID: 007402
Academic and Career Choices
Introduces students to strategies and resources to promote development of academic and career choices. NOTE: Students may not receive credit for both FYE 100 and FYE 105. Lecture: 0.3 credits (4.5 contact hours).
Components: Lecture
Attributes: Enrichment 1st Year Experience

FYE 1003(0.3) Course ID: 007403
Orientation to College
Introduces students to college policies, departments, student organizations and technology to promote academic and personal success. NOTE: Students may not receive credit for both FYE 100 and FYE 105. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Enrichment 1st Year Experience

GEN General College Studies

GEN 91(3) Course ID: 007368
Foundations of Information Literacy
Introduces information literacy skills. Focuses on skills related to defining information needs, finding sources, using information to solve problems, organizing and presenting information, and evaluation. Pre-requisite: COMPASS Reading Score of 60+ OR English Score of 34+. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Developmental/Remedial Learning Skills

GEN 100(1) Course ID: 000871
Introduction to College
Introduces new students to college and college life, support services provided by the college, techniques for academic success, and career exploration. Lecture: 1.0 credit hour (15 contact hours).
Components: Lecture
Attributes: Other, Course Also Offered in Modules, Enrichment 1st Year Experience

GEN 102(3) Course ID: 000872
Foundations of Learning
Prepares students which promote academic and personal success in college, including utilizing campus resources, learning and memory, self-management, critical reading, critical thinking, classroom skills, and career exploration. Lecture: 3 credit hours (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Enrichment Study Skills

GEN 103(1) Course ID: 005328
Instructor Consent Required
Principles of Peer Mentoring
Focuses on the study of issues, topics, and strategies related to mentoring first-year students. Relevant student development theory is highlighted. Prepares peer mentors to assist in teaching a section of GEN 100. Pre-requisite: Sophomore status and consent of instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Other

GEN 104(2) Course ID: 005329
Instructor Consent Required
Applied Principles of Peer Mentoring
Offers academic credit to peer mentors who assist teaching a section of GEN 100 with a faculty member. Prepares peer mentors for helping plan course content, meeting with first-year students, and assisting with other course-related responsibilities as determined by the GEN 100 faculty member. Pre-requisite: GEN 103 and consent of GEN 100 instructor and Sophomore status. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Other

GEN 120(3) Course ID: 003864
Service Learning
Engages students directly in structured, community-based activities to acquaint them with community opportunities, services, and needs. Integrates concepts from the classroom with community service allowing student to practice concepts while developing an appreciation of service. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other

GEN 122(1) Course ID: 003871
The Exemplary Tutor
Trains college students to be effective tutors by introducing ethics and philosophy of tutor-tutee relationships and concepts of questioning, learning styles, problem solving, active listening, goal setting, and critical thinking. Can be taken 1 time for a total of 1 credit. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Other

GEN 123(1-3) Course ID: 003872
The Exemplary Reading Tutor
Provides credit for students wishing to tutor in reading or reading based courses as related to the reading expectations in the KDE Core Curriculum. Grants credit of 1 hour for 45 hours of tutoring, 2 credits for 90 hours of tutoring, and 3 hours for 120 hours of tutoring. May be repeated for a total of 6 credits. Pass/Fail. Pre-requisite: GEN 122. Lecture/Laboratory: 1 - 3 credits (15 to 45 contact hours).
Components: Laboratory, Lecture
Attributes: Other

GEN 125(3) Course ID: 006590
Applied Meta-Thinking
Develops critical thinking skills and literacy processes across disciplines utilizing communication and appropriate applications in making self-paced, self-directed decisions and judgments. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, Course Also Offered in Modules

GEN 130(3) Course ID: 005055
Introduction to Information Resources
Provides basic concepts of the information society including different types of libraries and electronic resources, such as the internet, online databases, and information management software. Focuses on the nature of information, computer technology, and ethical computing issues. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other
GEN 131(1)  Course ID:005524  
Basic Library Research and Resources  
Introduces student to effective and efficient use of information resources through development of search statements/strategies, location and evaluation of information and information resources, and review and revision of search strategies as needed. Introduces students to the library catalog, print resources, databases, web resources and to the evaluation of information. Lecture: 1 credit (15 contact hours).  
Components: Lecture  
Attributes: Other  

GEN 140(3)  Course ID:000179  
Instructor Consent Required  
Development of Leadership  
Introduces concepts of leadership and group dynamics, especially focusing on each student's individual leadership philosophy, and providing opportunities for all students to develop leadership skills and potential. Pre-requisite: Consent of instructor. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: SB - Social Behavior Science, Course Also Offered in Modules  

GEN 150(1)  Course ID:00589  
Basic Computer Skills  
Provides an introduction to commonly-used computing functions, emphasizing information processing, hands-on experience, and software packages. (This course does not meet the KCTCS computer literacy requirement.). Lecture/ Lab: 1 credit (15 contact hours).  
Components: Laboratory, Lecture  
Attributes: Computer Literacy, Other  

GEN 175(3)  Course ID:005694  
Career and Life Skills Development  
Investigates the importance of appropriate social behavior and interaction in the workplace. Presents skills necessary for job search, self-management, and life and work transitions for adapting to changing demands and expectations. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Other, Course Also Offered in Modules  

GEN 225(3)  Course ID:006601  
Lifelong Learning Applications  
Develops and identifies overall life skills in complex systems as a whole to interact and communicate with others to produce successful outcomes. Pre-requisite: GE 175 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: SB - Social Behavior Science, Course Also Offered in Modules  

GEN 240(3)  Course ID:015506  
Leadership Applications  
Connects the principles of transformational leadership with personal behavior by building a base of leadership theory for a practical philosophy. Engages students in directed projects and case studies to put theory into practice. Provides instruction directly related to integrity, planning, alignment, decision-making, fostering understanding, change-management, relationships, internal locus of control, trust, respect, image-projection, influence, and building a following. Pre-requisite: GEN 140 or consent of instructor. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Other  

GEN 276(1)  Course ID:004489  
Employment and Professional Skills  
Presents the process of effective career planning and develops the skills necessary for obtaining and maintaining employment. Lecture: 1 credit (15 contact hours).  
Components: Lecture  
Attributes: Enrichment Career Counseling, Technical  

GEN 1021(1)  Course ID:007078  
College Basics & Learning Styles  
Presents an overview to campus and online resources, policies, and procedures including diversity. Presents strategies for identifying personal learning, self-management, and career exploration tools. Lecture: 1.0 credit (15 contact hours).  
Components: Lecture  

GEN 1022(1)  Course ID:007079  
Critical Reading and Thinking  
Presents strategies and tools to promote critical reading and thinking. Lecture: 1.0 credit (15 contact hours).  
Components: Lecture  

GEN 1023(1)  Course ID:007080  
Classroom Skills and Test-taking  
Presents strategies and tools to promote classroom and test-taking skills. Lecture: 1.0 credit (15 contact hours).  
Components: Lecture  

GEO 130(3)  Course ID:000351  
Earth's Physical Environment  
A course exploring the fundamental characteristics of earth’s physical environment. Emphasis is placed on identifying interrelationships between atmospheric processes involving energy, pressure, and moisture; weather and climate; and terrestrial processes of vegetative biomes, soils, and landscape formation and change. Fullfills elementary certification requirements in education, and USP cross-disciplinary requirement. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: SN - Science  

GEO 152(3)  Course ID:000398  
Regional Geography of the World  
Introduces regional geography with a focus on the world's physical and human landscapes. Connects relationships between regions and how each region affects and is affected by global issues such as economic restructuring, food production, and environmental change. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: Cultural Studies, SB - Social Behavior Science  

GEO 160(3)  Course ID:000422  
Lands and Peoples of the Non-Western World  
Provides a geographic study of world regions defined conceptually and historically as non-Western. Includes global patterns of social, cultural, economic and political differences between the West and Non-West and the processes key to making the Non-Western world, such as colonialism and imperialism. Considers significant current issues including sustainable development, environment, human rights, and gender relations. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: Cultural Studies, SB - Social Behavior Science  

GEO 162(3)  Course ID:007194  
Introduction to Global Environmental Issues  
This course addresses environmental questions of global importance, including population growth, resource consumption, environmental degradation, biodiversity conservation, toxic contamination and environmental justice. (Fulfills Gen Ed Global Dynamics requirement at the University of Kentucky.) Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Cultural Studies, SB - Social Behavior Science, University Course (University of Kentucky)  

GEO 163(3)  Course ID:007195  
Global Conflicts  
This course will focus on the dynamics and effective of conflicts over boundaries, territory, environmental resources, and civil and political rights. A geographic lens will be used to understand contemporary world conflicts. This course introduces students to an understanding of conflict as both grounded in localities and an effect of global interconnections - political, economic, and cultural. The course will focus on six major contemporary conflicts. Students will become versed in the debates and possible options for solution of these problems. While lectures will provide students with an understanding of the coordinates of the conflicts, recitations sections provide an opportunity for discussion and debate. The readings are chosen to supplement lecture material, providing a greater depth of understanding of the issues. (Fulfills the Global Dynamics requirement of General Education at the University of Kentucky.) Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Cultural Studies, SB - Social Behavior Science, University Course (University of Kentucky)  

GEO 212(3)  Course ID:000158  
Human Geography  
Introduces a study of the spatial distributions of significant elements of human occupancy of the earth's surface including basic concepts of diffusion, population, migration, settlement forms, land utilization, and impact of technology on human occupancy of the earth. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: SB - Social Behavior Science  

GEO 210(3)  Course ID:000610  
Pollution, Hazards, and Environmental Management  
An introduction to environmental systems such as weather and climate, vegetation, land forms and soils, and how the quality of these systems is modified by human use. Resource issues discussed include: atmospheric pollution and global warming; groundwater, flooding, and flood plain management; volcanic activity and earthquakes; and biospheric processes associated with deforestation and land eutrophication. (Fulfills Gen Ed Global Dynamics requirement at the University of Kentucky.) Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: SB - Social Behavior Science  

GEO 222(3)  Course ID:000482  
Cities of the World  
Focuses on the historical development, contemporary character, and alternative futures of cities in both developing and developed regions. Emphasizes the spatial, social, economic, and political processes of major world cities. Includes a specific focus on contemporary urban problems. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: SB - Social Behavior Science  

GEO 240(3)  Course ID:000434  
Geography and Gender  
Presents a geographic approach to the study of gender relations, emphasizing the role of space and place in shaping the diversity of gender relations throughout the world. Stresses the importance of gender relations in understanding a variety of issues through the application of case study analysis. Includes the design and use of urban and rural environments, “Third World” development, regional economic restructuring, changing political geographies, and migration. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: SB - Social Behavior Science  

GEO 251(3)  Course ID:000659  
Weather and Climate  
A survey of the atmospheric controls associated with local, regional, and global weather and climate variability. Includes fundamental coverage of the physics and chemistry of energy, gases, pressure and moisture, with a goal of promoting understanding of general weather analysis and forecasting, severe storms, atmospheric pollution, descriptive climatology, and global climate change. Pre-requisite: GEO 130 or consent of instructor. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: SN - Science
GEO 280(4)  Course ID:017173
Environmental Science
Introduces the study of environmental science and the role of the interrelationship between humans and their environment in contemporary issues. Emphasizes the basic principles of environmental science, functions of ecological systems, contemporary environmental conditions and problems, techniques for investigating these systems, and theories on humanity's place in the world's ecosystems and physical environment. Integrated Lecture/ Lab: 4 credit hours (60 contact hours).
Components: Integrated Laboratory, Integrated Lecture
Attributes: SL - Science Laboratory, SN - Science

GEO 299(1-3)  Course ID:017372
Special Topics in Geography
Introduces specialized topics in the field of geography to meet current trends and investigations of contemporary issues in the discipline. May be repeated to a maximum of six credits under different subtitles. Pre-requisite: Consent of instructor. Lecture: Variable.
Components: Lecture
Attributes: Other

GER 101(4)  Course ID:000884
Germanic Languages and Literature

Elementary German I
Includes fundamentals of German with development of the four basic skills: reading, writing, listening, and speaking. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Foreign Language, Cultural Studies

Elementary German II
Continues the fundamentals of GER 101 with further development of the four basic skills: reading, writing, listening, and speaking. Pre-requisite: GER 101 or Consent of Instructor. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: Foreign Language, Cultural Studies

Intermediate German I
Includes the systematic review of grammar and furthering of reading, writing, listening, and speaking skills based upon cultural and literary materials. Pre-requisite: GER 102, or equivalent or placement test. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Foreign Language, Cultural Studies

Intermediate German II
Continues the study of intermediate German through grammar, reading, and oral practice. Pre-requisite: GER 201 or equivalent or placement test. Lecture: 3 credits (45 contact hours).gyl 101
Components: Lecture
Attributes: Foreign Language, Cultural Studies

GIS Geographic Information Systems

GIS 110(3)  Course ID:004761
Spatial Data Analysis and Remote Sensing Techniques
Introduces spatial analysis, the interpretation of map data, and the use of handheld Global Positioning Systems to collect data. Intended for those interested in a career in civil engineering or surveying. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (15 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

GIS 120(3)  Course ID:004762
Introduction to Geographic Information Systems
Presents a comprehensive survey of the fundamental concepts of GIS, providing students a command over the software to import raster and vector data into a GIS and to conduct simple analyses over their data. Intended for those with limited experience with GIS who are exploring career opportunities in the field. Pre-requisite: GIS 110. Lecture: 3 credits (45 contact hours).
Components: Lecture

GIS 145(3)  Course ID:016881
Remote Sensing
Introduces remote sensing of the earth with topics that include the physical principles of remote sensing, history and future trends, sensors and their characteristics, image data sources, and image classification and analysis techniques. Pre-requisite or Co-requisite: CIT 125 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

GIS 210(3)  Course ID:005042
Advanced Topics in GIS
Explores advanced topics in GIS. Teaches students how to create and import geodatabases into a GIS, edit and create new vector and raster data, build layouts for presentation purposes and manipulate tabular data. Exposes students to various extensions within the software in order to conduct advanced analyses on their data. Pre-requisite: GIS 120. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

GIS 255(3)  Course ID:016882
Geospatial Programming
Examines customization of GIS software applications by way of modified service interface elements while covering topics in theory and implementation of the various scripting languages currently used. Prepares students to solve geospatial problems and streamline GIS workflows through the creation and modification of scripts. Pre-requisite: CIT 125 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

GIS 260(3)  Course ID:016883
Geospatial Web Mapping
Introduces the design, publishing, optimization and maintenance of geospatial servers, and basic geospatial web services and applications. Includes an introduction to browser and mobile enabled interactive applications. Pre-requisite: CIT 125 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

GLY 101(3)  Course ID:000878
Physical Geology
Introduces the principles of physical geology, including study of minerals and rocks, volcanoes and earthquakes, plate tectonics, and the landforms of Earth's surface. Requires concurrent enrollment in GLY 111. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

GLY 102(3)  Course ID:000757
Historical Geology
Covers the history of the Earth: its origin as part of the solar system, and subsequent evolution of the atmosphere, continents, seas, and life as interpreted from the rock record. Includes in addition to lecture illustrations, field trips and out-of-class exercises. Gives attention to the development of the basic principles used in interpretation. Pre-requisite: GLY 101 and GLY 111 or consent of the instructor. Co-requisite: GLY 112. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

GLY 110(3)  Course ID:00218
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 110 and GLY 111 or consent of the instructor. Co-requisite: GLY 102. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

GLY 114(1)  Course ID:015662
Environmental Geology Laboratory
Introduces and applies basic geologic concepts in a laboratory setting to current environmental issues including the availability, use, and testing of water and soil resources, as well as the effects, solutions, and causes of pollution. Pre-requisite or Co-requisite: GLY 110. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

GLY 125(3)  Course ID:016917
Geology of the National Parks and Monuments
Introduces the principles of physical geology within the context of the U.S. National Parks and Monuments, including Earth materials, geologic time, plate tectonics, and the surface and internal processes that have shaped and continue to shape the Earth as related to specific National Park and Monument sites. Includes an overview of the history of the park system and its unique role in understanding and preserving our natural history and environment. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

GLY 130(3)  Course ID:003761
Dinosaurs and Disasters: A Brief History of the Vertebrates
Examines dinosaurs' interactions with their environment, their indirect influence on mammals, and implications for humankind. Traces the history of dinosaurs from early vertebrate ancestors to their final extinction, and surveys the evolutionary, paleogeographic, environmental, and possible extraterrestrial causes for their rise to dominance and sudden fall. Lecture: 3.0 credit hours.
Components: Lecture
Attributes: SN - Science

GLY 131(1)  Course ID:007361
Dinosaur Laboratory
Augments GLY 130 in analysis and interpretation of fossils, scale models, and sedimentary rocks. Investigates specimens and examines features of dinosaurs and related fossils. Uses sedimentary rocks and fossils to interpret ancient environments, dinosaur anatomy, and geologic history. Demonstrates to students how science works. Pre-requisite or Co-requisite: GLY 130. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: SL - Science Laboratory

GER 201(3) Course ID:000880

GER 202(3) Course ID:000820

GLY 101(3) Course ID:000878

GLY 102(3) Course ID:000757

GLY 110(3) Course ID:00218

GLY 111(1) Course ID:000544

GLY 112(1) Course ID:000548

GLY 114(1) Course ID:015662

GLY 125(3) Course ID:016917

GLY 130(3) Course ID:003761

GLY 131(1) Course ID:007361
GLY 140(3) Course ID:016664
Introduction to Oceanography
Investigates geologic, physical, biogeochemical, and biologic processes that occur within the oceans of the world. Emphasizes connections between these processes and how these connections interact with our planet's life. Explores geologic evolution of the ocean floor, dynamic composition of ocean water, lithospheric and atmospheric interactions with the hydrosphere, marine life and ecosystems, and the impact of human activity on marine ecosystems. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SN - Science

GLY 220(4) Course ID:000847
Principles of Physical Geology
Learn how the Earth works: an integrated course in physical geology, covering the physical, chemical and biological processes that combine to produce geological processes. Focuses on plate tectonics, earth surface processes, and properties and formation of earth materials. Lab exercises emphasize identification and interpretation of geologic materials, geologic maps and cross sections. Lecture: 3 credits (45 contact hours); Laboratory: 1 credits (30 contact hours).
Components: Lecture
Attributes: SL - Science Laboratory, SN - Science

HCS Health Care Specialist

HCS 110(1) Course ID:016971
Culture of Healthcare
Covers job expectations and roles of clinical personnel in a healthcare setting. Discusses healthcare organization inside a practice setting, privacy laws, professional and ethical issues encountered in the workplace, and common form of care delivery. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Technical

HCS 125(1) Course ID:016972
History in Healthcare
Introduces the concept of “meaningful use” of electronic health records as well as the development and background of the IT landscape in healthcare and public health, including experiments from the 1950s and 1960s culminating in the HITELCH Act. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Technical

HCS 145(1) Course ID:016973
Health IT Terminology
Explains terminology used by workers in health care, public health, or those who work with Health IT systems including common medical terms, technology systems, health data standards, and clinical terminology. Pre-requisite or Co-requisite: AHS 115 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Technical

HCS 150(2) Course ID:016974
Health IT Analysis & Quality
Introduces concepts of Health IT and practice workflow process analysis and redesign. Addresses how establishing a culture to support increased quality and safety is critical in healthcare environment. Discusses the approaches to assessing patient safety issues, implementing quality management, and reporting through electronic systems. Pre-requisite or Co-requisite: CIT 105 AND HCS 145, or consent of Instructor. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

HCS 165(2) Course ID:016975
Health Management Systems
Covers specific health care and public health applications. Introduces Health IT standards, health-related data structures, software applications, enterprise architecture in health care, and public health organizations. Pre-requisite or Co-requisite: CIT 105 AND HCS 145, or Consent of Instructor. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

HCS 180(1) Course ID:016976
Usability and Human Factors
Introduces rapid prototyping, user-centered design and evaluation, and usability. Emphasizes the effects of new technology and workflow on downstream processes, as well as facilitation of a unit-wide focus group or simulation. Pre-requisite or Co-requisite: CIT 105 AND AHS 115 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Technical

HCS 200(1) Course ID:016977
Health IT Computer Systems
Provides an intermediate overview of computer architecture, data organization, representation, structure of programming languages, networking, and data communication about Health IT Systems. Pre-requisite or Co-requisite: CIT 105 or Consent of Instructor. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Technical

HCS 210(3) Course ID:016978
Implementing Health IT Systems
Introduces the OSI model, including the purpose and content of each of its seven layers as well as hardware, processes, protocols, and tools at each layer. Provides a practical experience that will address approaches to assessing, selecting, and configuring EHRs (electronic health records) to meet the specific needs of customers and end-users. Emphasizes the principles underlying system configuration, including system selection, planning, testing, troubleshooting, and final deployment. Pre-requisite or Co-requisite: 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
Identifies the components of Health IT systems and their applications. Introduces the potential threats to security and need for standards, high levels of usability, and awareness of how errors can occur. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Technical

HCS 230(2) Course ID:016980
Vendor-Specific Systems
Provides an in-depth discussion in Vendor-Specific Systems, focusing specifically on system and database architectures used in commercial Electronic Health Records (EHRs), vendor strategies for terminology, knowledge management, ways to assess decision support capabilities of EHRs, and vendor-specific training (go-live strategies). Pre-requisite or Co-requisite: HCS 200 or Consent of Instructor. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

HCS 260(1) Course ID:016981
Health IT Instructional Design
Examines Health IT 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

HCS 280(1) Course ID:016982
Project Management & Teams
Introduces project management tools and techniques that result in the ability to create and follow a project management plan. Emphasizes the value of being “team players” by understanding roles, the importance of communication, and group cohesion. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Technical

HCS 281(1) Course ID:016983
Health IT Customer Service
Develops customer service skills to encourage effective communication across the team. Introduces roles that will be encountered in healthcare and public health settings. Lecture: 1.0 credits (15 contact hours).
Components: Lecture
Attributes: Technical

HEO Heavy Equipment Operation

HEO 106(7) Course ID:001522
Motorgrader Operator
Examines a broad base of skills required to operate heavy equipment with an emphasis on safety. Operation of a Motor-Grader will be learned by students. Pre-requisite: DIT 103. Lab: 7.0 credits (315 contact hours).
Components: Laboratory
Attributes: Technical

HEO 107(7) Course ID:015676
Utility Tractor Loader Operator
Provides a broad base of skills required to operate heavy equipment with an emphasis on safety. Focuses on job awareness and industry requirements. Permits experience on dump truck and utility tractor loader. Pre-requisite or Co-requisite: DIT 103. Lab: 7.0 credits (210 contact hours).
Components: Laboratory
Attributes: Technical

HEO 110(7) Course ID:015677
Power Shovel Backhoe Operator
Presents a background in the operation, maintenance, and safety considerations for a dump truck and power shovel backhoe. Pre-requisite or Co-requisite: DIT 103. Lab: 7.0 credits (210 contact hours).
Components: Laboratory
Attributes: Technical

HEO 111(7) Course ID:001524
Bulldozer Operator
Presents a background in the operation, maintenance, and safety considerations for a dump truck and bulldozer. Pre-requisite: DIT 103. Lab: 7.0 credits (210 contact hours).
Components: Laboratory
Attributes: Technical

HEO 115(7) Course ID:0004571
Hydraulic Excavator Operator
Covers a broad base of skills required to operate heavy equipment safely. Includes how to operate a hydraulic excavator safely. Pre-requisite: HEO 151. Lecture: 45 contact hours; Lab: 180 contact hours.
Components: Laboratory, Lecture
Attributes: Technical

HEO 125(3) Course ID:001525
Special Problems I
Offers a broad base of skills required to operate heavy equipment safely. Includes how to operate a hydraulic excavator safely. Pre-requisite: HEO 151. Lecture: 45 contact hours; Lab: 180 contact hours.
Components: Laboratory, Lecture
Attributes: Technical
HEO 151(6) Course ID:015678
Heavy Equipment Operating I
Instructs students in the operation of heavy equipment such as bulldozers, backhoes, front end loaders, graders, and scrapers. Explains techniques of operation such as digging, 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

HEO 201(6) Course ID:015679
Heavy Equipment Operating II
Reinforces material first presented in HEO 151. Provides intermediate instruction for students in the operation of heavy equipment such as bulldozers, backhoes, front end loaders, graders, and scrapers. Explains intermediate techniques of operation such as digging, 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

HEO 225(3) Course ID:001528
Special Problems II
Reinforces material presented in HEO 150, 200, and 250. Instructs all facets of project control. Pre-requisite Or Co-requisite: DIT 103. Lab: 3.0 credits (90 contact hours).

Components: Laboratory Attributes: Technical

HEO 251(6) Course ID:015680
Heavy Equipment Operating III
Reinforces material presented in HEO 151 and 201. Provides advanced instruction for students in the operation of heavy equipment such as bulldozers, backhoes, front end loaders, graders, and scrapers. Explains advanced techniques of operation such as digging, 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 Healthcare Facility Management
HFL 100(3) Course ID:015593
Introduction to Healthcare Facility Management
Introduces students to Healthcare Facility Leadership by presenting an overview of the history and development of healthcare engineering. The student will learn the importance of compliance with the various codes and standards applicable to the healthcare facility environment; explore the driving factors affecting the operations and maintenance of health care facilities; review the complexity of delivering engineering in a patient centered environment; gain understanding of the complex structure and reporting relationships that exist in the healthcare industry; understand how the facility environment impacts regulatory requirements, clinical needs, and financial bottom line of healthcare; and gain an understanding of his/her role within the facility management department and the hospital setting. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

HFL 110(2) Course ID:015594
Introduction to Healthcare Industry
Introduces students to the healthcare industry by examining healthcare reporting relationships, organizational structures, personnel, facility types, department configurations, terminology, regulatory environment, and accreditation process. The course will also examine industry shifts related to an aging population and healthcare law changes. The student will have a clearer understanding of how to navigate the healthcare industry based on size and complexity. Lecture: 2.0 credits (30 contact hours).

Components: Lecture Attributes: Technical

HFL 120(2) Course ID:015663
Infection Control and Prevention
Examines the historical and evolving infection control complexities from both a clinical and physical environment perspective. Reviews changes the industry has taken to address this growing healthcare industry challenge. Studies how the physical environment and engineering practices during construction and maintenance impact infection control. Reviews infection control risk assessments and prevention documentation and techniques. Lecture: 2.0 credits (30 contact hours).

Components: Lecture Attributes: Technical

HFL 130(3) Course ID:015684
Compliance, Codes and Standards I
Introduces student to the various codes & standards, regulatory, and accreditation agencies in Healthcare. Takes into consideration local, state, and federal regulatory bodies such as Occupational Safety and Health Administration (OSHA), National Fire Protection Association (NFPA), Building Owners and Managers Association (BOMA), Center for Medicare and Medicaid Services (CMS), American Society for Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE), International Organization for Standardization (ISO), National Electrical Code (NEC), International Building Code (IBC), The Joint Commission, and the DNV. Examines the facility leader's role in coordination and participation in the accreditation and regulatory survey processes. Evaluates the role of a coordinator and participant in emergency management drill and training. Develops fire prevention and control documentation. Pre-requisite: HFL 100 Introduction to Healthcare Facility Management. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

HFL 140(3) Course ID:015665
Maintenance and Operations I
Examines and reviews mechanical, electrical, plumbing, medical gas, fire protection, building envelope, medical, steam, and security systems that comprise most healthcare facilities. Reviews computer systems and software such as building automation, fire systems, work order systems, and CAD/BIM used by facility engineering. Understands equipment inventory, entry control, and disposition. Develops maintenance program for buildings, equipment, utilities, and grounds. Reviews energy management and benchmarking. Pre-requisite: HFL 100 Introduction to Healthcare Facility Management. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

HFL 150(3) Course ID:015666
Planning, Design and Construction I
Covers project management delivery from concept, development, design, contracting, method, bidding, budgeting, equipment acquisition, specifications, and meeting management. Develops and reviews current Infection Control Risk Assessment (ICRA) practices and documentation. Develops and reviews Interim Life Safety Measures (ILSM) practices and documentation. Pre-requisite: HFL 100 Introduction to Healthcare Facility Management. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

HFL 230(3) Course ID:015667
Compliance, Codes and Standards II
Examines the major codes, standards and regulatory rules that apply to the healthcare industry. Examines, National Fire Protection Association (NFPA) 101, 110, 99, 55, 25, 20, 10; Facility Guidelines Institute (FGI) Guidelines; The Joint Commission Standards for accreditation; and how to maintain standard specific documentation and checklists for accreditation surveys. Develops and maintains medical equipment and utility system programs. Develops and conducts environmental rounds and surveys. Develops standard specific policies and procedures, such as National Fire Protection Association (NFPA) 99 electrical equipment safety inspection requirements. Pre-requisite: HFL 130 Compliance, Codes and Standards I. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

HFL 240(3) Course ID:015668
Maintenance and Operations II
Examines the administration and coordination of work order processes to include preventive maintenance, corrective maintenance, moves, and projects. Applies equipment risk assessments in developing a maintenance program. Tests, monitors, and documents air quality, air exchange, and pressure relationships. Maintains control access and key control systems. Manages policies and procedures. Develops competency based training programs. Manages low voltage systems (Nurse call, Closed Circuit Television System (CCTV), patient monitoring, Radio Frequency Identification (RFID) etc.). Understands Performance Improvement (PI) processes. Pre-requisite: HFL 140 Maintenance and Operations I. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

HFL 250(3) Course ID:015669
Planning, Design and Construction II
Examines the management, planning, monitoring, reporting, and closing out of projects. Emphasizes the management of drawing revisions, commissioning, equipment documentation, and hand off training. Details Change Order Request (COR) and Request For Information (RFI), as well as, reviewing the needs and requirements for space planning and allocation. Pre-requisite: HFL 150 Planning, Design and Construction I. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

HFL 260(3) Course ID:015670
Healthcare Facilities Leadership Capstone I

Components: Lecture Attributes: Technical

HFL 270(3) Course ID:015671
Healthcare Facilities Leadership Capstone II
Examines management of related healthcare engineering roles, such as fire safety, environment of care, waste management, emergency management, protection services, and environmental services. Examines management of Human Resource functions (e.g. competencies, disciplinary action, hiring, performance appraisals, terminations, scheduling, staff orientation, and job descriptions). Performs and participates in organizational strategic planning, SWOT (strengths, weaknesses, opportunities and threats) analysis, report writing and presentations. Examines the importance of networking and partnerships (e.g. peers, local authorities, state authorities, and industry experts). Pre-requisite: HFL 260 Healthcare Facilities Leadership Capstone I. Co-requisite: HFL 240 Maintenance and Operations II. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical
HIM 210(3) Course ID:004306
Archives Studies: Appraisal & Accessioning
This course provides an in-depth examination of the information appraisal and accession process in archives work. Topics covered include intellectual content, documentation strategies, appraisal theories, and accessioning practices. Students are expected to complete an accessioning record, including records transmittal form, deed of gift, and accession form. Pre-requisite: HIM 102. 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 ancient to medieval times. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities
HIS 104(3) Course ID:000860
A History of Europe Through the Mid-17th 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-17th Century to the Present
Surveys the development of European politics, society, and culture from the Age of Absolutism to the present. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities
HIS 106(3) Course ID:000532
Western Culture: Science and Technology I
Surveys the interactions of science and technology with the social and cultural development of Western civilization to the Industrial Revolution. Emphasizes the values in scientific inquiry as compared with other kinds of inquiry and the importance of science and technology in modifying social organization and human expectations. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities
HIS 107(3) Course ID:000535
Western Culture: Science and Technology II
Surveys the interactions of science and technology with the social and cultural development of Western civilization since the Industrial Revolution. Emphasizes the values in scientific inquiry as compared with other kinds of inquiry and the importance of science and technology in modifying social organization and human expectations. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities
HIS 108(3) Course ID:000542
History of the United States Through 1865
Examines key political, economic, and social topics that have significantly influenced the American experience from the pre-colonial period through the Civil War era. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, Course Also Offered in Modules
HIS 109(3) Course ID:000171
History of the United States Since 1865
Examines key political, economic, and social topics that have influenced significantly the American experience from Reconstruction through the contemporary era. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, Course Also Offered in Modules
HIS 120(3) Course ID:000348
The World at War, 1939-45
Covers a global overview of the events of the Second World War, including consideration of the conflicts military, diplomatic, political, social, and economic dimensions. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities
HIS 202(3) Course ID:000828
History of British People to the Restoration
Surveys the major political, social, economic, and cultural developments in British history from the pre-Roman era through the Stuart Dynasty. Includes examination of such topics as the Norman conquest, the Plantagenet Dynasty, the Hundred Years War, War of the Roses, the Tudors Monarchs, the Protestant Reformation, the Stuart Kings, Puritan Revolution, and the Restoration. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities
HIS 203(3) Course ID:000516
History of the British People Since the Restoration
Surveys the major political, social, economic, and cultural developments in British history from the Stuart period to the present. Includes examination of such topics as the Glorious Revolution, Imperial Wars, American Revolution, Napoleonic Wars, Industrial Revolution, Imperialism, World War I, Great Depression, World War II, Cold War, Decolonization, Post-War Britain, and the European Union. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities
HIS 206(3) Course ID:000219
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. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities
HIS 207(3) Course ID:000220
History of Modern Latin America, 1810 to Present
Surveys the history of the Latin American nations focusing on their social, economic, political and cultural development. Emphasizes the history of the independence movements, nation building, the struggle for modernization, dependency and the phenomenon of revolution since 1810. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities
HIS 215(3) Course ID:015616
Historical Perspectives on Prisons and Police Work
Examines historical development of law codes, police work and prisons since the ancient world, with emphasis on the early modern period to the present. Develops an understanding of current practices in criminology, placing emphasis on the evolving conceptions of the causes of and cures for criminal behavior, and the professionalization of police and corrections personnel. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, Other
HIS 220(3) Course ID:007417
Native American History: Pre-Contact to 1865
Surveys the struggle of Native Americans from pre-colonial times to 1865. Emphasizes the indigenous Native American culture and society, the Columbian and biological exchange, Indian-Anglo cultural interactions, the construction and reconstruction of Indian identities, U.S. Indian policy development, and forced Indian removal. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities
HIS 221(3) Course ID:007418
Native American History: 1865 to Present
Surveys the struggle of Native Americans from 1865 to the present times. Emphasizes the indigenous Native American culture and society, Indian-Anglo cultural interactions, the construction and reconstruction of Indian identities, and the struggles for the Great Plains and the Great Basin. Assesses the U.S. Indian policy development in relation to forced Indian removal, Americanization plan, educational assault on Indian children, termination policy, and sovereignty. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities
HIS 240(3) Course ID:000439
History of Kentucky
Surveys the chief periods in Kentucky's growth and development from 1750 to the present focusing on the social, economic, cultural, and political trends of each region. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities
HIS 247(3) Course ID:000651
History of Islam and Middle East Peoples, 500-1250 A.D.
Surveys the origins and development of the Islamic civilization from the time of the Prophet Muhammad to 1250, with special emphasis on the role of the Arab, Iranian, and Turkish 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 Qajar Empires. Includes the demise of these empires, the response of the Middle East peoples to European imperialism, and the development of the Middle East since 1250. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities
HIS 254(3) Course ID:000670
History of Sub-Saharan Africa
Surveys the major social, religious, cultural, economic, and political trends in Sub-Saharan African history since the 16th century. Includes the impact of the Atlantic slave trade, European imperialism, and 20th century wars on Sub-Saharan Africa. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities
HIS 260(3) Course ID:000680
African American History to 1865
Studies the African American experience through the Civil War. Examines African heritage, slavery, and growth of African-American institutions. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities
HIS 261(3) Course ID:000693
African-American History 1865 - Present
Examines the African American experience from Reconstruction to the present, with emphasis on the rise of segregation, the Civil Rights Movement, and race relations into the twenty-first century. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities
HIS 265(3)  Course ID:000705  
History of Women in America
Surveys the history of American women, with particular emphasis on the mid-19th century to the present. Includes the major themes of family, work, social ideas about women, and feminism. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 266(3)  Course ID:005481  
History of American Women to 1920
Examines 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
Attributes: Other

HIS 267(3)  Course ID:005482  
History of American Women from 1920
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
Attributes: Technical

HIS 271(3)  Course ID:005262  
Medieval Europe
Surveys European history from the fourth century through the fifteenth. Emphasizes political, economic, social, and intellectual developments. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HIS 295(3)  Course ID:000749  
East Asia to 1800
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 1091. Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture
Attributes: Technical

HIS 299(3)  Course ID:000753  
History of Asia II
Examines key political, economic, and social topics from the Cold War and Civil Rights through the Rise of Conservatism that have significantly influenced the American experience. Pre-requisite: HIS 1093. Lecture: 0.75 credits (11.25 contact hours).
Components: Lecture
Attributes: Technical

HIT 100(3)  Course ID:004260  
Introduction to Health Information Technology
Provides an overview of the management of health care information systems and the study of hospital based reimbursement issues. Uses a microcomputer and software to apply 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 by special permission of the Program Coordinator. Minimum grade of "C". Lecture: 2.5 credits (37.5 contact hours). Lab: 0.5 credits (15 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

HIT 200(3)  Course ID:004268  
Information Systems in Health Care
Introduces the uses of coded data and health information reimbursement and payment systems appropriate to all health care settings including managed care. Includes a history of major U. S. insurance developments. Pre-requisite: Admission to the Health Information Technology Program or Medical Record Coding Certificate or by special permission of the Program Coordinator and (HIT 109 and HIT 110). Minimum grade of C. Pre-requisite Or Co-requisite: BIO 139 (if BIO 137 was taken). Minimum grade of C. Lecture: 2.5 credits (37.5 contact hours). Lab: 0.5 credits (15 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
HIT 205(3) Course ID:007084
Quality Mgmt & PI - Health Info
Examines principles of performance improvement as it relates to health information technology. Integrates data collection, analyses, evidence-based care, implementation of performance improvement processes, and examines regulatory, accrediting organization, and payor requirements including payment. Pre-requisite or Co-requisite: HIT 108 and HIT 110. Minimum grade of "C". Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HIT 207(3) Course ID:007085
Clinical Classification Systems III
Introduces the advanced application of clinical classification systems in its reimbursement for health care services and specialty systems such as RBRVS, OASIS, RUGs, Cancer Registry, etc. Reviews fraud, abuse, and regulatory agency requirements relating to coding and billing. Pre-requisite: HIT 109 and HIT 202. Minimum grade of "C". Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

HIT 211(3) Course ID:007086
Health Care Management and Statistics
Introduces the principles of organization, supervision, leadership, motivation, and team building within the health information environment. Applies concepts of descriptive statistics, data validity, reliability, and the appropriate use and interpretation of applied health care statistics including the use, collection, arrangement, analysis, presentation, and verification of health care data. Pre-requisite: HIT 109 and HIT 110. Minimum grade of "C". Pre-requisite or Co-requisite: HIT 112. Minimum grade of "C". Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HIT 215(4) Course ID:007087
Clinical Practicum
Introduces the student to the clinical practice of health information review, documentation and supervision within a health information management (HIM) department. Observes and assists personnel in assigned areas of job responsibility within the HIM Department. Provides student with onsite project. Exposes student to HIM roles in other departments (e.g., quality, CDM, Cancer Registry, compliance, risk management). Pre-requisite: (HIT 200 and HIT 202 and HIT 204. Minimum grade of "C") or Consent of Program Coordinator. Practicum: 4.0 credits (180 contact hours).
Components: Practicum
Attributes: Course Also Offered in Modules, Technical

HIT 299(0.5 - 4) Selected Topics in Health Information Technology: (Topic)
Addresses various health information technology topics, issues, and trends. Includes topics that may vary from semester to semester at the discretion of the instructors; course may be repeated with different topics to a maximum of four credits. Lecture: 0.5 - 4.0 credits (7.5 - 60.0 contact hours). Lab: 0.5 - 4.0 credit hours (15-20 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

HIT 2151(2) Course ID:007088
Clinical Practicum I
Continues the clinical practice of health information review, documentation and supervision within a health information management (HIM) department. Provides observation and assists personnel in assigned areas of job responsibility within the HIM Department. Pre-requisite: (HIT 200 and HIT 202 and HIT 204. Minimum grade of "C") or Consent of Program Coordinator. Practicum: 2.0 credits (90 contact hours).
Components: Practicum

HIT 2152(2) Course ID:007089
Clinical Practicum II
Introduces the student to the clinical practice of health information review, documentation and supervision within a health information management (HIM) department. Provides observation and assists personnel in all assigned areas of job responsibility within the HIM Department. Pre-requisite: (HIT 200 and HIT 202 and HIT 204. Minimum grade of C) or Consent of Program Coordinator. Practicum: 2.0 credits (90 contact hours).
Components: Practicum

HIT 2153(2) Course ID:007090
Clinical Practicum III
Continues the clinical practice of health information review, documentation and supervision within a health information management (HIM) department. Provides observation and assists personnel in all assigned areas of job responsibility within the HIM Department. Pre-requisite: (HIT 200 and HIT 202 and HIT 204. Minimum grade of "C") or Consent of Program Coordinator. Practicum: 2.0 credits (90 contact hours).
Components: Practicum

HMS Human Services

HMS 101(3) Course ID:009901
Human Services Survey
Examines community human service agencies regarding their organization, service delivery system, staffing patterns, and funding sources. Explores the origin and development of the social welfare system as well as social welfare policy. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HMS 102(3) Course ID:000777
Values of Human Services in a Contemporary Society
Examines the values and ethics of human service professions. Encourages a personal philosophy of client intervention, including the development of a professional value base, achieved through the examination of major social problems and issues. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HMS 103(3) Course ID:000202
Theories and Techniques in Human Services
Introduces philosophies, theories for intervention, and the problem-solving process. Emphasizes the development of a skill base used in counseling techniques and client intervention. Emphasizes interpersonal relationship skills through knowledge of communication techniques. Provides activities in which the student will apply this knowledge and these skills. Pre-requisite: (HMS 101 and HMS 102 with a grade of "C" or better) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HMS 104(3) Course ID:000867
Group Dynamics for Human Services
Covers group techniques in clinical or agency settings based on various theoretical models with emphasis on the leadership role, phases of group development, and interaction within the group. Pre-requisite: HMS 103 with a grade of "C" or better or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HMS 200(3) Course ID:000784
Dynamics of Human Behavior
Addresses the historic view of theories of personality development, maladaptive behavior, knowledge of treatment, techniques of adjustment and social implications. Pre-requisite: PSY 110 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HMS 210(3) Course ID:000617
Drugs, Society, & Human Behavior
Covers the nature and progression of chemical abuse and dependency, and effects on the individual, family, and society. Includes strategies for prevention, intervention, and treatment. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HMS 211(3) Course ID:005583
Introduction to Addictions
Provides an overview of approaches to understanding addictions with emphasis on the bio-psycho-social model. Analyzes the etiology, progression, and processes involved in change. Pre-requisite: PSY 110 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
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 233(3) Course ID:000818
Teaching Persons with Mental Retardation
Examines mental retardation with emphasis on understanding and teaching the mentally retarded. Pre-requisite: PSY 110 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HMS 240(3) Course ID:017205
Service Coordination for Human Services Professionals
Provides students with experience utilizing techniques and skills used in human services, as well as the theories behind these techniques and skills. Explores skills related to service delivery, behavior management, and supportive services with different populations, including adults, children, families, individuals with mental impairments, mental illnesses, and/or developmental disabilities. Demonstrates skills and techniques including therapeutic communication, interviewing clients, treatment planning, goal setting, documentation & record keeping, crisis intervention, and addressing ethical dilemmas. Lecture: 3 credit hours (45 contact hours).
Components: Lecture
Attributes: Technical

HMS 245(3) Course ID:016148
Psychiatric Mental Health Technician
Prepares students for employment as psychiatric aides or psychiatric technicians. Includes a review of nursing assistant skills, psychopathology, DSM diagnostics, strengths perspective, bio-psycho-social assessments, and psychotropic medications. Explores the responsibilities of mental health technicians who work under the supervision of a psychiatrist, registered nurse, or social worker; as well as participate in the development and implementation of therapeutic treatment plans for persons with mental disorders; particularly those receiving treatment in an inpatient setting. Pre-requisite: NAA 100 or NNA 100, PSY 110 and HMS 103 with a grade of "C" or better or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HMS 249(4) Course ID:016837
Foundational Skills in Para-Professional Practice
Applies principles and skills previously learned in the Human Services courses to develop proficiency related to interviewing, data collection, assessment, goal development, contracting and documentation. Prepares students for work at the Bachelor’s in Social Work level. Pre-requisite: HMS 104. Lecture: 4.0 credits.
Components: Lecture
Attributes: Technical
The Ancient World
From Greek and Roman antiquity to the early Christian centuries: an interdisciplinary course in intellectual history. Readings vary at the discretion of the faculty. Pre-requisite: Membership in the Honors Program. Lecture: 3 credits (45 contact hours).

HOS Hospitality Management

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. Examines 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 credits (45 contact hours).

Front Office Operations
Identifies principles required to organize and operate hotel and motel front office guest needs, to have effective salesmanship, and to create procedures for different types of front office operations. Lecture: 3 credits (45 contact hours).

Security for the Hospitality Industry
Analyses modern security concerns for the protections of assets unique to the hospitality industry, including loss prevention techniques and the application of law for lodging, retailing, clubs, restaurants, lounges and hospitality properties. Examines topics such as industrial safety, disaster control techniques, emergency action planning, and crisis communications. Lecture: 3 credits (45 contact hours).

Tourism Marketing
Examines how and why tourists make destination choices, and how to develop a strategic marketing system that emphasizes your destination’s distinctive appeal. Answers questions of how to assess visitor markets, gather and analyze data, reduce risk and gain competitive advantages, and turn analysis into sound decisions. Applies knowledge from case studies, and practical tips for stretching marketing dollars through better monitoring, cost controls, and evaluation. Lecture: 3 credits (45 contact hours).

Radiation Biology
Examines the cellular response, pathology, and short- and long-term effects of ionizing radiation on living tissue. Pre-requisite: (BIO 112 and BIO 113) or Consent of Instructor. Lecture: 3 credits (45 contact hours).

Tourism and Public Policy
Examines the relationships between tourism and public policy, and teaches students to identify global and local tourism issues, and to understand the social, environmental, and economic ramifications of tourism. Pre-requisite: Consent of Instructor. Lecture: 3 credits (45 contact hours).

HOS 251(3) Course ID:017207
Clinical Practices in Human Services
Provides practice and application of principles and skills previously learned in Human Services courses, and supports 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 and leisure opportunities, and personal management/individual living skill training and supports. Emphasizes developmental disabilities and mental retardation. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

HOS 299(1-3) Course ID:000522
Special Topics in Human Services: (Topic)
Provides an in-depth knowledge of a Human Services topic and allows students' choices with coordinator/instructor's approval on an issue of instruction. Lecture: 1-3 credits (15-45 contact hours). Clinical: 1-3 credits (60-180 contact hours).

Components: Lecture
Attributes: Technical

HOS 102(3) Course ID:000766
The Medieval and Renaissance World
From the Middle Ages through the Reformations: an interdisciplinary course in intellectual history. Readings vary at the discretion of the faculty. Written assignments required. Pre-requisite: Membership in the Honors Program. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: AH - Arts and Humanities

HPH Health Physics

Radiation Biology
Examines the cellular response, pathology, and short- and long-term effects of ionizing radiation on living tissue. Pre-requisite: (BIO 112 and BIO 113) or Consent of Instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

HOS 103(3) Course ID:000832
The Contemporary World
The contemporary world: an interdisciplinary course in intellectual history. Readings vary at the discretion of the faculty. Pre-requisite: Membership in the Honors Program. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: AH - Arts and Humanities

HOS 200(3) Course ID:002367
Cultural Heritage Tourism
Examines the range of cultural and heritage assets that can become viable tourism attractions and looks at ways of linking quality cultural heritage tourism to community development from effective planning and marketing. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

HOS 282(3) Course ID:002370
Tourism Marketing
Examines how and why tourists make destination choices, and how to develop a strategic marketing system that emphasizes your destination’s distinctive appeal. Answers questions of how to assess visitor markets, gather and analyze data, reduce risk and gain competitive advantages, and turn analysis into sound decisions. Applies knowledge from case studies, and practical tips for stretching marketing dollars through better monitoring, cost controls, and evaluation. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

HPR 120(3) Course ID:000346

Radiation Biology
Examines the cellular response, pathology, and short- and long-term effects of ionizing radiation on living tissue. Pre-requisite: (BIO 112 and BIO 113) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

HOS 101(3) Course ID:000892
From Greek and Roman antiquity to the early Christian centuries: an interdisciplinary course in intellectual history. Readings vary at the discretion of the faculty. Pre-requisite: Membership in the Honors Program. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: AH - Arts and Humanities

HRS Honors

HRS 101(3) Course ID:000855
Instructor Consent Required
An Integrated Survey of Western Civilization I
An honors course designed to provide an opportunity for the interested student to study the development of Western Civilization as reflected in the literary, artistic, musical, philosophical, political, and economic developments and movements of the major western cultures from ancient times through the Roman Empire. Lecture: 3 hours. Pre-requisite: Consent of instructor.

Components: Lecture
Attributes: AH - Arts and Humanities

HRS 200(3) Course ID:000765
Independent/Guided-Study Project
Students wishing to engage in an approved, valid research/study project may receive academic credit through this course. The project may be scheduled concurrently with the academic semester, or in the case of necessary travel, between semesters or during the summer term. Lecture: Variable; Laboratory: Variable. Pre-requisite: Superior academic ability as demonstrated by tests, classroom, and interviews.

Components: Laboratory, Lecture
Attributes: Other

HRT Horticulture

HRT 150(3) Course ID:001543
Horticulture Business Management
This course introduces various career opportunities in a garden center and focuses on salesmanship and business practices utilized in this environment. Identification of characteristics, usage and care of woody ornamentals, annual and perennial plants, as well as use and care information needed by the consumer are included. Assisting customers in choosing chemical pesticides and plant related products is discussed. Lecture: 3 credits (45 contact hours).

Components: Lecture

HSE Health Sciences Education

HSE 101(1) Course ID:002221
Introduction to Health Sciences
Provides students with information and career options about allied health and sciences programs including presentations by allied health practitioners. Students will research selected health professions/careers and allied health and sciences educational programs. Lecture: 1.0 credits (15 contact hours).

Components: Lecture
Attributes: Technical
HST Health Care Foundations

HST 101(3) Course ID:007362
Health Care Basic Skills I
Introduces student to basic health care skills such as measuring and recording vital signs, assisting licensed personnel, observing and reporting patient conditions, collecting specimens and caring for the hygiene, comfort, and safety of patients in various settings. Prepares the student for entry-level health care positions by incorporating certification for American Heart Association Cardiopulmonary Resuscitation (CPR). Lecture: 3.0 credits (45 contact hours). Components: Laboratory, Lecture
Attributes: Technical

HST 102(3) Course ID:007363
Health Care Delivery & Management
Introduces delivery and management of health care, including professionalism, health care roles, health care delivery models, and types of health care coverage. Explores legal/ethical issues including HIPAA and confidentiality, electronic medical records and patients’ rights as well as analysis of current trends in health care today. (Appropriate for any student considering entering the Allied Health or Nursing field.) Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

HST 103(2) Course ID:007364
Health Care Communication
Introduces communication and its various forms as it exists in the health care field. Focuses on verbal, nonverbal, written and oral communication between members of the health team, patient, and caregivers through an interdisciplinary approach. Examines each role with discussion from the perspective of the involved parties. Emphasizes diversity, sociocultural influences, and teamwork. Includes discussion of the media’s role in health care, as well as how health promotion campaigns may be implemented and managed. Appropriate for anyone interested in a career in allied health or nursing. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
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 health care positions by incorporating certification for American Heart Association Cardiopulmonary Resuscitation (CPR). Prepares student for the State Registered Nurse Aide examination. Note: Faculty and clinical sites must comply with applicable Federal and Kentucky laws and regulations including but not limited to 42 USC 1396 and 907 KAR 1-450. Lecture: 2.0 credits (30 contact hours), Lab: 1.0 credit (45 contact hours). Clinical: 0.5 credits (23 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Technical

HST 121(2) Course ID:007365
Pharmacology
Introduces students to the basics of pharmacology/pharmaceuticals, includes terms used to describe various effects and reactions from drug usage. Will also introduce metric system and basic dosage calculations common to most fields of study within allied health and nursing. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical

HST 122(3) Course ID:007366
Clinical Pathophysiology
Explores an introduction to the nature of disease and its effect(s) on body systems. Provides a study of pathology and general health management of diseases and injuries across the lifespan. Includes topics of etiology, symptoms, physical and psychological reactions to diseases and injuries. Pre-requisite: BIO 137 or BIO 135. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Same As Offering: HST 122 Attributes: Technical

HUM Humanities

HUM 120(3) Course ID:000350
Introduction to the Humanities
Introduces students to at least five disciplines in the humanities, such as art, literature, dance, drama, music, philosophy, architecture, religion, and mythology. Explores distinctions and relationships between the disciplines through study of their basic methods, themes, and forms. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

HUM 121(3) Course ID:004906
Peace Studies
This interdisciplinary course is intended as a general introduction to the nature, scope, and methodology of Peace Studies, with a view toward the future. It will explore the history of non-violent movements to effect social change, the role of women in the attainment of peace and protection of life, the tie between social justice and the environment, and the resolution of conflict between individuals, groups, societies, and nations. The course includes the study of activists such as Dr. Martin Luther King, Jr., Gandhi, and Dorothy Day. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HUM 135(3) Course ID:000582
Introduction to Native American Literature
Introduces the study of the oral and written literature of Native American peoples, emphasizing the cultural and historical context in which it was composed. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities, SB - Social Behavior Science

HUM 140(3) Course ID:006814
Introduction to Latin Literature
Analyzes literary texts and other artistic expressions to reveal aspects of Latino cultures such as identity, immigration, ingenuity; 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:005430
Introduction to African Literature
Presents a cross-cultural and historical approach to the oral and written works by major Black writers of Africa. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HUM 160(3) Course ID:007110
Introduction to Holocaust Literature and Film
Analyzes literary texts, memoirs, film, and other artistic expressions of the Holocaust to focus on the cultural and political events that caused the Holocaust; examines how subsequent people represent what happened; explores the consequences of the Holocaust in terms of ethical and human rights issues; examines how issues of racism and religious intolerance occurred prior to and since the Holocaust; addresses the Holocaust in a comparative perspective to prior and subsequent acts of genocide in other countries. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

HUM 202(3) Course ID:000841
Survey of Appalachian Studies I
Presents an inter-disciplinary introduction to Appalachian history, economy, geography, politics, and culture, primarily through exploration of texts about the region, including fiction, non-fiction, and poetry. Emphasizes geography, Appalachian identity, works, values, and communication. May also include exploration of regional music, traditional arts, drama, photography, film, and, where applicable, community-based explorations of the Appalachian experience. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities, SB - Social Behavior Science

HUM 203(3) Course ID:000518
Survey of Appalachian Studies II
Presents an inter-disciplinary introduction to Appalachian history, economy, geography, politics, and culture, primarily through exploration of texts about the region, including fiction, non-fiction, and poetry. Emphasizes migrations, economy, belief, expression, politics and government, and environment. May also include exploration of regional music, traditional arts, drama, photography, film, and, where applicable, community-based explorations of the Appalachian experience. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities, SB - Social Behavior Science
Appalachian Seminar
Examines in detail one or more issues pertinent to the Appalachian region. Topics may include but are not limited to: cultural diversity, religious expression, politics and government, trends in Appalachian literature, or trends in regional sociological scholarship. Topics may vary from semester to semester. This course may be repeated once for credit with a different topic. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities, SB - Social Behavior Science

American Seminar: Topic
Examines issues pertinent to American culture and identity through an interdisciplinary and multi-cultural approach. Includes topics such as cultural diversity, religious expression, politics and government, trends in art, literature, and/or music, political life, media representation, trends in social science which may vary from semester to semester. Course may be repeated once for additional credit when the repeat offering covers a different topic than the initial course offering. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other

Historical Perspectives on Peace and War
Provides an introduction to the history of violence and peace movements. Examines the anthropological, political, cultural and technological forces contributing to the frequent occurrence of war throughout history. Examines the history of movements and organizations, both religious and secular, intended to minimize warfare and oppression. Examines literature and visual arts to enhance and elaborate on the themes presented in the anthropological and historical sections of the course. Sophomore standing or consent of instructor. Pre-requisite: Sophomore Status. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities

Contemporary Japanese Literature and Culture in Translation
Presents traditional and contemporary aspects of Japanese culture as reflected in both cultural studies and literature. Examines daily life as revealed in the themes and motifs of Japanese fiction, poetry, drama, and film. Pre-requisite: ENG 102 or ENG 105 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

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

Introduction to Film
Introduces the study of movies as a narrative art and a cultural document. Requires viewing of films outside of class. Lecture: 3 credits (45 contact hours).
Components: Lecture
Course Equivalents: ENG 281
Attributes: AH - Arts and Humanities

International Film Studies
Enhances student awareness of how cinema has been used as a multicultural tool for observing/analyzing various aspects of a broad range of societies. Includes critical analysis and interpretation of films from various cultures. Explores the films' countries of origin and the cinematic impacts upon the society and the world. Lecture: 3 credits (45 contact hours).
Components: Lecture
Course Equivalents: ENG 282
Attributes: Cultural Studies, AH - Arts and Humanities

Contemporary Appalachian Literary Voice and Identity
Examines the contemporary Appalachian literary voice and identity. Includes traditional Appalachian literature and modern works by contemporary Appalachian writers. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

Approaches to Early Childhood Education
Introduces theoretical perspectives for curriculum in early childhood programs. Teaches the design of curricula and examines the societal factors that impact programming for children. Includes ten (10) hours of required field experience. Pre-requisite: IEC 101 or IEC 102 or IEC 130 or permission of IEC program coordinator. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

Child Guidance
Examines appropriate methods for guiding children and promoting the development of prosocial behaviors. This course requires ten (10) hours of field experience. Pre-requisite: IEC 101 or IEC 130 or permission of the IEC program coordinator. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

Families and Communities in Early Childhood Education
Examines community programs that focus on forming partnerships with families to support child development and family well-being. Builds an awareness of family in context of a diverse society to create respect, build reciprocal relationships, and empower families. Required: 10 hours of field experience. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

Introduction to Inclusive Education
Examines issues pertinent to American culture and identity through an interdisciplinary and multi-cultural approach. Includes topics such as cultural diversity, religious expression, politics and government, trends in art, literature, and/or music, political life, media representation, trends in social science which may vary from semester to semester. Course may be repeated once for additional credit when the repeat offering covers a different topic than the initial course offering. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other

Orientation to Early Childhood Education
Introduces information related to designing appropriate environments and curricula for infants, toddlers, and preschoolers. Examines the historical and current influences on early childhood education. Includes twenty (20) hours of required field experience. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

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. Examines child assessment, ethical decision-making in the early childhood profession and accommodations for children with disabilities. Includes ten (10) hours of required field experiences. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

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

Early Childhood Development
Addresses the physical, language, cognitive, social, and emotional development of children beginning with conception. Includes methods of observation that are practiced during field experiences. This course requires ten (10) hours of field experience. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

Curriculum
Introduces establishing, operating and/or owning an early childhood program. Teaches the design of curricula and assessment. Examines the societal factors that impact programming for children. Includes ten (10) hours of required field experience. Pre-requisite: IEC 101 or IEC 102 or IEC 130 or permission of IEC program coordinator. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

Creative Expressions in IECE
Addresses the role of creativity as it relates to the development of young children. Studies a variety of art, music, drama, and movement experiences that encourage creative expression in young children. Includes the implementation of appropriate creative activities in a child-centered environment. This course requires five (5) hours of field experience. Pre-requisite: IEC 180 or permission of the IEC program coordinator. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

Business Administration of ECE Programs
Introduces establishing, operating and/or owning an early childhood program. Includes legal forms for early childhood programs, finance, accounting, insurance, governmental regulations and assistance, economics, marketing and management principles. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

Introduction to Inclusive Education
Examines the types of exceptionalities that occur in the development of children with an emphasis on state and federal laws that impact services. Introduces assessment, referral processes and sources, education plans, family service plans, center-based and home-based care, adaptations and assistive technology, and ethical considerations. This course requires ten (10) hours of field experience. Pre-requisite: IEC 180 or permission of the IEC program coordinator. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical
IEC 240(3) Course ID:004138
Administration of Early Childhood Education
Focuses on the administrative responsibilities of creating and implementing education programs for children and their families with an emphasis on the administrative, organizational, and legal responsibilities in operating early childhood programs. Includes ten (10) hours of required field experience. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical
IEC 249(3) Course ID:004139
Sciences and Math in IEC
Applies the concepts and principles of science, social studies, mathematics, and health in learning experiences for young children. Includes five (5) hours of required field. Pre-requisite: IEC180 or permission of 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 birth to age three by integrating an understanding of the physical, social, emotional, and cognitive development with developmentally appropriate practices for each stage. Includes 10 hours of required field experience, which may be waived by the 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
IECE Practicum/Cooperative Education
Requires participation in supervised teaching experiences in early childhood settings where practical skills are applied. Includes observing, planning, implementing and assessing learning experiences based on developmentally appropriate practices. Required: One hundred and eighty (180) field hours of experience. Pre-requisite: Program Coordinator's Approval. Practicum: 3.0 credits (180 contact hours/ratio 60:1).
Components: Practicum
Attributes: Technical
IET 102(2) Course ID:007134
Preventive Maintenance
Introduces how routine work is done to keep equipment in good working order and to optimize its efficiency and accuracy. Addresses regular routine cleaning, lubricating, testing, checking for wear and tear and eventually replacing components to avoid breakdown. Introduces students to the various types and styles of predictive and preventive maintenance components, principles, and practices used in industrial applications. Lecture/Lab: 2.0 credits (40.5 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
IET 104(2) Course ID:007137
Blueprint Reading/Schematics
Introduces the fundamental information in drafting necessary to retrieve read, manipulate and understand a mechanical part print. Introduces students to recognize, identify, describe, and relate the components used in schematics, along with their symbols and connectors, to describe electrical, electronics, pneumatics, hydraulics, and piping circuits, as well as welding and joining symbols interpretation. Lecture/Lab: 2.0 credits (37.5 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
IET 107(3) Course ID:007140
Basic Electricity/Electronics
Introduces the various elements of basic electricity including the identification of electrical symbols as well as interpretation of schematics, cross referencing prints, tracing circuits, interpreting sequential function charts, line drawings and time charts. Introduces the student to electrical measurement instruments, including digital and analog multimeters, clamp-on ammeters, megohmmeters, and the oscilloscope. Concentrates on control logic components and circuit function. Introduces the student to solid state devices and applications. Lecture/Lab: 3.0 credits (67.5 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
IET 108(5) Course ID:007145
Mechanical Drive Systems
Introduces safety, maintenance techniques and procedures used to maintain industrial equipment, including industrial couplings, chains, sprockets, belts, bearings, shafts, brakes, clutches, gears and cams. Addresses the principles of power transmission, calculations of speed and force and how they affect a power transmission system. Lecture/Lab: 5.0 credits (112.5 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
IET 109(3) Course ID:007152
Safety
Introduces OSHA and the OSHA regulations that apply to the auto manufacturing industry. Introduces safety rules and issues in the use of overhead cranes, hoists, rigging equipment, attachment components, calculating sling angle stresses, and safe lifting and turning loads. Provides the knowledge and skills necessary to help sustain life and minimize the consequences of injury or sudden illness to meet the various training needs of those in workplace, school or community settings. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
IET 130(5) Course ID:016096
Lean Manufacturing
Instructs the students in the basic concepts of a safety culture and hazard prediction training. Introduces the fundamental 5S process, the Toyota Production System for Maintenance, the Toyota Problem Solving method, the Toyota Drive and Dedication model, and the Toyota Maintenance Reliability Process and Reliability Centered Maintenance Analysis. Lecture: 5.0 credits (75 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
IET 201(6) Course ID:007180
Electrohydraulics/Pneumatics
Explains the fundamental concepts of fluid power and electro-fluid power systems. Covers the principles of fluid power, calculations of physical properties of fluids and their ability to do work. Introduces the various fluid power components, symbols, circuits. Introduces troubleshooting of fluid power, describe, and relate the components used in safety. Addresses fluids, filters, reservoirs, piping, pumps, actuators, accumulators, control valves, and combination circuits. Lecture/Lab: 6.0 credits (120 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
IET 203(5) Course ID:007172
Programmable Logic Controllers
Introduces Programmable Logic Controllers (PLC) and elements needed for an automated industrial control system. Introduces memory and project organization within a PLC and provides instruction in basic numbering systems, computer and PLC terminology. Introduces PLC control functions, program structures, language standards, wiring and troubleshooting methods, as well as real world communications. Requires the student to program in PLC which may include a combination of ladder logic, structured text, sequential function chart and/or function block languages. Includes various protocols of industrial communications used between PLC controlled machines, PLC to PLC, PLC to computer, and computer to computer. Lecture/Lab: 5.0 credits (109.5 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
IET 205(4) Course ID:007167
Robot Maintenance
Introduces robotics in regard to industrial robotic safety standards, applications, types of classes for industrial robots, basic system components, robotic motion concepts, key programming techniques, definitions and the common terms associated with computer integrated manufacturing (CIM) as it relates to robotic cells. Instructs students on the mastering concepts of preventive maintenance techniques required for a robot and their backup systems in addition to recovery procedures needed to interpret robot error codes and perform a safe recovery start up procedure on robotics equipment, as well as integrating robotic applications in a PLC-controlled, automated system. Lecture/ Lab: 4.0 credits (82.5 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
IET 206(5) Course ID:007161
Controls and Instrumentation
Covers the diversity of control devices including: theory of operation, applications in automation control and troubleshooting and repair. Introduces identification, installation, replacement, and troubleshooting of automation controller circuit boards and modules. Includes the installation, maintenance and troubleshooting of common input devices. Provides for discussion of methods of motor controls including on-off, proportional, integral, and derivative including PID loop tuning and quality. Covers automation output devices including AC, DC, and servo motors, variable speed drives, relays, motor starters and sizing of components for various applications. Lecture/ Lab: 5.0 credits (105 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical
IET 1021(0.7) Course ID:007135
Basic Preventive Maintenance
Introduces how routine work is done to keep equipment in good working order and to optimize its efficiency and accuracy. Addresses regular routine cleaning, lubricating, testing, checking for wear and tear and eventually replacing components to avoid breakdown. Lecture/Lab: 0.7 credits (15 contact hours).
Components: Lecture
IET 1022(1.3) Course ID:007136
Advanced Technologies
Introduces various types and styles of predictive and preventive maintenance components, principles, and practices used in industrial applications. Lecture/Lab: 1.3 credits (25.5 contact hours).
Components: Lecture
IET 1041(0.9) Course ID:007138
Drafting Fundamentals
Introduces the fundamental information in drafting necessary to retrieve read, manipulate and understand a mechanical part print. Requires student to be able to identify different types of prints as well as being able to analyze them. Lecture/Lab: 0.9 credits (16.5 contact hours).
Components: Lecture
IET 1042(1.1) Course ID: 007139
Orthographic Interpretation
Instructs the learner to recognize, identify, describe, and relate the components used in schematics, along with their symbols and connectors, to describe electrical, electronics, pneumatics, hydraulics, and piping circuits, as well as welding and joining symbols interpretation. Lecture/Lab: 1.1 credits (21 contact hours).
Components: Lecture

IET 1071(1) Course ID: 007141
Intro to Basic Electricity
Introduces the various elements of basic electricity including the identification of electrical symbols as well as interpretation of schematics, cross referencing prints, tracing circuits, interpreting sequential function charts, line drawings and time charts. Lecture/Lab: 1.0 credit (21 contact hours).
Components: Lecture

IET 1072(0.3) Course ID: 007142
Instruments
Introduces electrical measurement instruments, including digital and analog multimeters, clamp-on ammeters, megohmeters, and the oscilloscope. Requires hands-on lab time spent with each device type. Emphasizes safe measuring techniques. Covers additional devices such as pressure gauges, chart recorders, heat sensors and chain stretch monitor. Lecture/Lab: 0.3 credits (7.5 contact hours).
Components: Lecture

IET 1073(1) Course ID: 007143
Control Circuits & Components
Concentrates on control logic components and circuit function. Examines combinational and sequential ladder logic designs with great attention to reliability of function. Requires construction of various circuits that demonstrate key component functionality concepts. Requires troubleshooting using analytical techniques, multimeters, chart recorders, and oscilloscopes. Lecture: 1.0 credit (22.5 contact hours).
Components: Lecture

IET 1074(0.7) Course ID: 007144
Solid State Devices
Introduces solid state devices and applications. Covers semiconductor theory and operational characteristics of devices such as the diode, bipolar junction transistor (BJT) and field effect transistor (FET). Examines the basic DC power supply in the lab. Addresses concepts such as polarity, biasing, rectification and amplification. Includes discussion of camera-type vision systems, barcode readers and laser etchers. Lecture/Lab: 0.7 credits (16.5 contact hours).
Components: Lecture

IET 1081(0.5) Course ID: 007146
Basic Mechanical Power Systems
Introduces the basic concepts of mechanical power transmission. Addresses the principles of power transmission, calculations of speed and force and how they affect a power transmission system ability to perform work. Emphasizes the basics of mechanical drawing, safe work practices for working around machinery, common hand tools associated with maintenance work and some of the more common terms and definitions. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

IET 1082(0.3) Course ID: 007147
Flexible Drives
Introduces various types and styles of flexible belt and chain drives, including V-belts, chains, sprockets, and components. Lecture/Lab: 0.3 credit (7.5 contact hours).
Components: Lecture

IET 1083(2.2) Couplings and Alignment
Introduces types and functions of couplings used in industrial power transmissions, including how to install, align, and maintain shaft couplings. Lecture/Lab: 2.2 credits (55.5 contact hours).
Components: Lecture

IET 1084(1.1) Course ID: 007149
Bearings, Shafts, and Seals
Introduces basic types and functions of bearings, shafts and seals found on mechanical drive systems commonly used in industry. Lecture/Lab: 1.1 credits (24 contact hours).
Components: Lecture

IET 1085(0.2) Course ID: 007150
Brakes and Clutches
Introduces various types and styles of braking systems and clutch components used in industrial applications. Lecture/Lab: 0.2 credits (4.5 contact hours).
Components: Lecture

IET 1086(0.7) Course ID: 007151
Gears and Cams
Introduces various types and styles of gears and cam follower components used in industrial applications. Lecture/Lab: 0.7 credits (13.5 contact hours).
Components: Lecture

IET 1091(0.7) Course ID: 007153
Basic OSHA Safety
Introduces OSHA and the OSHA regulations that apply to the manufacturing industry. Lecture/Lab: 0.7 credits (12 contact hours).
Components: Lecture

IET 1092(0.4) Course ID: 007154
Hoists and Cranes
Introduces the basic concepts and safety rules and issues related to the use of overhead cranes and hoists. Lecture/Lab: 0.4 credit (6 contact hours).
Components: Lecture

IET 1093(1.2) Course ID: 007155
Rigging Awareness & Fundamentals
Introduces the basic concepts and safety rules and issues related to the use of rigging equipment, attachment components, calculating sling angle stresses, and safe lifting and turning loads. Lecture/Lab: 1.2 credits (25 contact hours).
Components: Lecture

IET 1094(0.7) Course ID: 007156
First Aid, CPR, & AED
Provides knowledge and skills necessary to help sustain life and minimize the consequences of injury or sudden illness until advanced medical help arrives. Includes first aid, CPR and AED lessons to meet the various training needs of those in workplace, school or community settings. Lecture/Lab: 0.7 credits (16.5 contact hours).
Components: Lecture

IET 1101(0.5) Course ID: 007182
Introduction to Arc Welding
Introduces the power sources used in shielded metal arc welding (SMAW) and gas metal arc welding (GMAW) along with equipment and filler metals used to produce a welded joint and welding principles along with the metallurgy of steel and welding. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

IET 1102(1.6) Course ID: 007183
SMAW/Stick Welding
Introduces shielded metal arc welding (SMAW) safety and shielded metal arc welding (SMAW) processes including flat, horizontal, vertical, and overhead welding techniques. Lecture/Lab: 1.6 credits (45 contact hours).
Components: Lecture

IET 1103(0.9) Course ID: 007184
Gas Metal Arc Welding
Provides knowledge of theory, safety practices, equipment and techniques required for gas metal arc welding (GMAW) including different transfer methods and position welding. Lecture/Lab: 0.9 credits (25.5 contact hours).
Components: Lecture

IET 1104(1) Course ID: 007185
Welding and Fabrication
Introduces oxy-fuel welding and cutting, including safety, setup and maintenance of oxy-fuel welding and cutting equipment. Includes cutting, brazing, and welding techniques. Lecture/Lab: 1.0 credits (22.5 contact hours).
Components: Lecture

IET 1201(0.1) Course ID: 007187
Intro to Machining Operations
Introduces machining operations. Focuses on the safe application of the most common machining procedures and machines used by multi-skilled industrial maintenance technicians. Lecture: 0.1 credit (1.5 contact hours).
Components: Lecture

IET 1202(0.6) Course ID: 007188
Turning
Introduces safe operation of lathes, primarily engine and tool room lathes. Addresses various types of lathes used in industry, their component parts, and associated safety precautions. Emphasizes the most common lathe operations required by multi-skilled industrial maintenance technicians. Lecture/Lab: 0.6 credits (16.5 contact hours).
Components: Lecture

IET 1203(0.8) Course ID: 007189
Milling
Introduces safe operation of milling machines, primarily vertical milling machines. Addresses the various types of milling machines used in industry, their component parts, and associated safety precautions. Emphasizes the most common milling operations required by multi-skilled industrial maintenance technicians. Lecture/Lab: 0.8 credits (22.5 contact hours).
Components: Lecture

IET 1204(0.5) Course ID: 007190
Drill Press
Introduces safe operation of drill presses, primarily the sensitive drill press. Addresses the various types of drilling machines used in industry, their component parts, and associated safety precautions. Emphasizes the most common drilling operations required by multi-skilled industrial maintenance technicians. Lecture/Lab: 0.5 credits (13.5 contact hours).
Components: Lecture

IET 1205(0.4) Course ID: 007191
Saws
Introduces safe operation of saws, primarily the horizontal and contour band saw. Addresses the various types of metal saws used in industry, their component parts, and associated safety precautions. Emphasizes the most common sawing operations required by multi-skilled industrial maintenance technicians. Lecture/Lab: 0.4 credits (10.5 contact hours).
Components: Lecture

IET 1206(0.7) Course ID: 007192
Hand and Power Tools
Introduces safe and effective use of hand and power tools. Emphasizes the application of the most common tools used by multi-skilled industrial maintenance technicians. Lecture/Lab: 0.7 credits (16.5 contact hours).
Components: Lecture

IET 1207(0.9) Course ID: 017390
Measuring and Layout Tools
Introduces measuring and layout tools commonly found in industrial environments. Emphasizes the safe application of the most common tools used by multi-skilled industrial maintenance technicians. Lecture: 0.9 credits (21 contact hours).
Components: Lecture

IET 1301(1) Course ID: 016097
Safety Culture
Introduces the importance of cultivating daily safe work habits and the predictable negative results of not being safety conscious in the work place. Instructs the students in basic safety culture and prepares them to participate in, conduct, and lead safety walk-throughs. Introduces the student to Kiken Yoshi Training (KYT) or Hazard Prediction Training. Prepares the student to conduct risk assessment activities, construct safety boards, and formulate individual safety commitments. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
IET 1302(1)  Course ID:016098  SS
Introduces the fundamental SS process involving the five step progression described by the Japanese words Seiri, Seiton, Seiseki, Seiketsu, and Shitsuke. Instructs the students in the sequence involving classifying and sorting, ordering and aligning, cleaning and sweeping up, standardizing, and developing a process of sustainable practice in the workplace. Fosters the development of a workplace organization in which safety and efficiency are always paramount. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

IET 1303(1)  Course ID:016099
Total Production Management
Instructs the student in the concepts of value-added product, maintenance value-added product, value-added work and necessary work. Explains the process of how Toyota earns profit. Demonstrates the Toyota Production System for Maintenance using the House framework. Describes and explains the three Ms and the seven Mudas and their relationship to maintenance and production. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

IET 1304(1)  Course ID:016100
Problem Solving
Introduces the Toyota Business Practice model, the 8 step Toyota Problem Solving method, and the 10 part Toyota Drive and Dedication model. Instructs the students to clarify the problem, break it down to analyze it, set achievable targets, analyze the root cause, develop countermeasures, evaluate results and the process, standardize the results, and learn from failures. Fosters the development of a customer first philosophy involving all the stakeholders. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

IET 1305(1)  Course ID:016101
Maintenance Reliability
Introduces the Toyota Maintenance Reliability training. Describes the difference between corrective maintenance and preventive maintenance. Breaks down proactive maintenance and the underlying tools and constituent processes. Instructs the students in the various individual units in a system and the steps in evaluating failure 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. Introduces troubleshooting of fluid power components and systems with an emphasis on safety. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

IET 2012(0.7)  Course ID:007178
Reservoirs, Fluids, Filters
Introduces functions of hydraulic/pneumatic reservoirs and reservoir components. Addresses properties and requirements for fluids, as well as how filters are used to maintain cleanliness in fluid power systems. Lecture/Lab: 0.7 credits (15.5 contact hours).

Components: Lecture

IET 2013(0.4)  Course ID:007177
Hose, Piping, and Tubing
Introduces various types of conductors that carry fluid through a system. Focuses on fittings, hose, and steel tubing used in fluid power systems. Lecture/Lab: 0.4 credits (9 contact hours).

Components: Lecture

IET 2014(0.8)  Course ID:007176
Pumps, Actuators, Accumulators
Introduces the different types of pumps, actuators and accumulators used in fluid power systems which create flow, change fluid power into mechanical power and devices 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 (19.5 contact hours).

Components: Lecture

IET 2017(0.9)  Course ID:007173
Systems Troubleshooting
Introduces troubleshooting of hydraulic and pneumatic systems, including tracing out systems, isolating problems, safety testing and inspecting systems that use combination circuits and combined electro-hydraulic/pneumatic systems. Lecture/Lab: 0.9 credits (19.5 contact hours).

Components: Lecture

IET 2021(0.6)
Introduction to PLCs
Introduces various elements of basic PLCs including the identification of programmable logic control systems as well as an overview of PLC system architectures. Provides instruction in basic numbering systems, computer terminology, PLC functions, program structures, language standards, point addressing basics. Lecture: 0.6 credits (9 contact hours).

Components: Lecture

IET 2023(1.4)  Course ID:007170
Hardware & Software
Introduces memory and project organization within a PLC processor, the installation, wiring and configuration of I/O modules, as well as how to start a new project. Lecture/ Lab: 1.4 credits (31.5 contact hours).

Components: Lecture

IET 2023(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 2024(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 2025(0.6)  Course ID:007166
Introduction to Robotics
Introduces robotics in regard to industrial robotic safety standards, historic timeline of industrial robots, industrial classification of robots, common industrial applications of robots, basic system components found in industrial robot applications, robotic motion concepts, common terms and definitions used in computer integrated manufacturing (CIM) as it relates to robots. Lecture/Lab: 0.6 credits (10.5 contact hours).

Components: Lecture

IET 2052(1.5)  Course ID:007165
Programming/Editing Robots
Introduces robotic systems and programming. Reviews robotic system application, automated system safety, robotic system composition, robotic motion control, fundamental programming commands, and program editing. Emphasizes the fundamentals of robot control. Aids students in electronics, welding, computer technology, and general sciences. Lecture/Lab: 1.5 credits (30 contact hours).

Components: Lecture

IET 2053(0.2)  Course ID:007164
Robot and Preventive Maintenance
Instructs an operator, technician, engineer, programmer, or student to master the preventive maintenance techniques required for a robot and their backup systems. Lecture/Lab: 0.2 credits (4.5 contact hours).

Components: Lecture

IET 2054(1.1)  Course ID:007163
Error Codes & Troubleshooting
Instructs operators, technicians, engineers, programmers, or students 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:007162
Integration of PLCs & Robots
Introduces concepts associated with integrating robotic applications in a PLC-controlled, automated system. Includes discussion of the standard safety and interface signals associated with integrated systems, as well as various types of robotic applications along with the interface signals typically associated with each application. Stresses the programming concepts that support optimizing cycle time. Lecture/Lab: 0.6 credits (15 contact hours).

Components: Lecture

IET 2061(0.5)
Fundamentals
Introduces identification, installation, replacement, and troubleshooting of automation controller circuit boards and modules. Lecture/Lab: 0.5 credits (10.5 contact hours).

Components: Lecture

IET 2062(0.9)  Course ID:007159
Sensors and Photoeyes
Introduces installation, maintenance and troubleshooting of common input devices. Lecture/Lab: 0.9 credits (18 contact hours).

Components: Lecture

IET 2063(0.6)  Course ID:007158
Calibration and Loop Training
Introduces the concept of motor control including on-off, proportional, integral, and derivative including PID loop tuning and quality. Lecture/Lab: 0.6 credits (13.5 credits).

Components: Lecture

IET 2064(3)  Course ID:007157
Final Control Elements
Covers automation output devices including AC, DC, and servo motors, variable speed drives, relays, motor starters and sizing of components for various applications. Lecture/ Lab: 3.0 credits (63 contact hours).

Components: Lecture

IEX 291(1)  Course ID:000157
Special Problems I
This course is designed for the student who has demonstrated specific needs. Pre-requisite: Permission of Instructor. Laboratory: 1 credit (45 contact hours).

Components: Laboratory

Attributes: Technical

IEX 295(3)  Course ID:000157
Instructor Consent Required
Special Problems III
This is a course designed for the student who has demonstrated specific special needs. Pre-requisite: Permission of Instructor. Laboratory: 3 credits (135 contact hours).

Components: Laboratory

Attributes: Technical

IEX Industrial Core

IEX 291(1)  Course ID:000157
Special Problems I
This course is designed for the student who has demonstrated specific needs. Pre-requisite: Permission of Instructor. Laboratory: 1 credit (45 contact hours).

Components: Laboratory

Attributes: Technical

IEX 295(3)  Course ID:000157
Instructor Consent Required
Special Problems III
This is a course designed for the student who has demonstrated specific special needs. Pre-requisite: Permission of Instructor. Laboratory: 3 credits (135 contact hours).

Components: Laboratory

Attributes: Technical

IEX Industrial Core
IMD Informatics

IMD 111(3) Course ID:007270
Client-side Informatics Software
Examines client-side informatics software used to define, analyze, design, collect, structure, manage, and share organizational data. Examines data through charting and statistical analysis. Applies informatics concepts using industry-standard software, such as spreadsheet packages, database management systems, data/document sharing software, and collaboration software. Pre-requisite: Computer Literacy or consent of instructor. Lecture: 3.0 credits (45 contact hours).

IMD 128(3) Course ID:007271
Principles of Informatics
Introduces students to the concepts associated with an information-centric world, information systems, and includes the definition of information and how it is communicated. Prepares students to understand how information systems support data-driven decision making strategies, information sharing technologies, data encoding, cooperative skills, knowledge sharing, and organizing of information. Lecture: 3.0 credits (45 contact hours).

IMD 215(3) Course ID:007274
Information Systems Analysis
Introduces students to systems analysis and general design; analysis strategies, tools, and techniques for documenting current systems and developing proposed systems; systems modeling, data modeling, cost/benefit trade-offs, and project management; and development of a comprehensive systems analysis project. Pre-requisite: Digital Literacy or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

IMD 235(3) Course ID:007276
Business Intelligence and Analytics
Introduces students to the fundamentals of business intelligence, analytics, and data science. Prepares both business and information technology students to understand how business intelligence, analytics, and data sciences provide a basis for the decisions needed to be competitive in the global marketplace. Pre-requisite: Digital Literacy or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

IMD Information Management and Design

IMD 100(3) Course ID:004764
Digital Information & Communication Technologies
Introduces digital concepts and technologies. Examines hardware, operating systems, networks, applications, telecommunications, digital security, ethics, and social media. Utilizes Windows operating system plus word processing, spreadsheet, database, and presentation applications. Emphasizes social media practices/concepts and trends for practical daily users. Lecture: 3 credits (45 contact hours).

IMD 115(3) Course ID:004765
Introduction to Graphic Design
Introduces theory, concepts and techniques required in graphic design. Includes an introduction to layout; color theory and use; design, photo and illustration techniques; and exploitation of media in respect to digital design. Integrates concepts regarding the production process including pre-press, printing, other production techniques and distribution. Lecture: 3.0 credits (45 contact hours).

IMD 124(3) Course ID:016264
Introduction to Game Development
Presents an overview of the game development process including game development history, platforms, goals, genres, players, story and character development, gameplay, levels, interfaces, audio, development processes, development team roles, marketing, and maintenance. Provides opportunities to play and analyze games and to complete portions of game designs. Pre-requisite: CIT105 OR IMD100 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

IMD 126(3) Course ID:004781
Introduction to Desktop Publishing
The use of microcomputers for designing and producing various publications is introduced. Hands-on experience is provided in using desktop publishing software and a laser printer to produce high-resolution publications, such as flyers, brochures, business forms, and newsletters. Students are also introduced to basic design techniques, type and graphics layout, and the related terminology. Pre-requisite: IMD 100 or equivalent skills. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Technical

IMD 172(3) Course ID:005044
Vector Design with Adobe Illustrator
In this course, students will be introduced to and develop vector (line-based) graphics using industry-standard application(s). Topics covered will include examining the theory behind vector graphics, investigating the advertising and print industries’ use of this type of graphic, creation of graphics from simple to increasingly complex, as well as development of a portfolio of vector art. Pre-requisite: IMD 115 or concurrent or consent of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture Attributes: Technical

IMD 180(3) Course ID:004786
Intermediate Web Design
Utilizes content management systems (CMS) for web design with an emphasis on custom theme development. Instructs students in basic CMS setup, administration, and theme design. Utilizes HTML, CSS, and photo-editing software within a CMS. Identifies fundamentals including website layout, navigation, font usage, color schemes, site architecture, with emphasis on creating websites that effectively communicate the 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 223(1) 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 IMD100 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Course Equivalents: CIT 221 Attributes: Technical

IMD 222(3) Course ID:016266
3D Modeling for Video Games
Instructs students in the use of industry-standard 3D modeling software specific to the video-game industry. Emphasizes both architectural and character modeling. Familiarizes the student with key 3D modeling concepts and methods, workflow, and the creation and preparation of 3D assets for use specifically in a video-game application. Pre-requisite: CIT 221 OR IMD 221 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Course Equivalents: CIT 222 Attributes: Technical

IMD 223(3) Course ID:016267
3D Animation for Video Games
Exposes students to the specialized process of animating 3D assets for gaming applications. Familiarizes students with animating both organic and inorganic assets, lighting scenes, rendering and producing cut-scenes, and preparing character assets for in-game motion. Allows students to acquire the necessary skills and techniques to integrate audio with their animations using basic sound-engineering software and processes. Lecture: 3 credits (45 contact hours).

Components: Lecture Course Equivalents: CIT 223 Attributes: Technical

IMD 226(3) Course ID:004791
Advanced Desktop Publishing
Requires the demonstration of a vital pre-press and print production knowledge necessary for successful output of commercial graphic design projects. Emphasizes raster image creation, editing, and preparation for output, offset printing processes, color separations, spot color usage and preparation, vector graphics, font usage 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 128. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

303
Advanced Web Design
Explores existing and emerging web technologies through the role of web designers. Covers HTML, CSS, and content management systems (CMS) for responsive web design. Instructs students in responsive website development using HTML, CSS, and photo-editing software. Students will conclude the course via the creation of a comprehensive, dynamic, responsive website utilizing current technologies. Pre-requisite: IMG 100 or consent of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

Portfolio Practicum: Web Design
Requires a comprehensive web site design portfolio using skills learned in the IMD Web Design core courses to assess students' overall skills learned in the web design option. Pre-requisite: IMD students with a professional design portfolio to aid in the search for employment. Uses industry-standard design software programs and dynamic scripting languages to assemble the comprehensive design portfolio. Pre-requisite: IMD 133, 180 OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

IMD 271(1 - 3)
Instructor Consent Required
Internship
Requires a minimum of 40 clock hours per credit hour of on-the-job experience to include a learning plan agreed upon by the student, instructor, and site supervisor. Pre-requisite: Consent of Instructor, 2.0 GPA, IMD 270 and the completion of 9 additional credit hours of IMD course work. Practicum: 1.0 - 3.0 credits (40-120 contact hours).

Components: Practicum
Attributes: Technical

IMD 273(3)
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)
Seminar in Game Development
Encompasses the three phases of game design and development: conception, creation, and marketing in this project-oriented seminar. Requires participation in class presentations, individual and group projects, development of a game, and a portfolio. Pre-requisite: ((CIT 223 OR IMD 223) AND (CIT 273 OR IMD 273)) OR Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Course Equivalents: CIT 274 Attributes: Technical

IMD 275(3)
Information Management and Communications
Introduces management principles and techniques as they apply to various types of businesses. Includes research emphasis on information management, team concepts, personnel management, communications and business plans. Explores concepts within freelance, small business, and corporate entities. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

IMD 277(3)
Typography
Explores the use of typography in the context of graphic design and discover the importance of type as a tool for visual problem solving and communication. Explores origins of typography, font usage, the anatomy and different kinds of type, software used for type manipulation, and how basic principles and elements of design (color, hierarchy, form, rhythm, etc.) are applied to typography. Requires the development of portfolio of individual typography-based designs. Pre-requisite: (IMD 115 and IMD 126 and IMD 127 and IMD 128) or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

IMD 280(3)
Portfolio Practicum: Graphic Design
Provides an opportunity to assemble a comprehensive graphic design portfolio using skills learned within the IMD Graphic Design core courses, which will assess students overall graphic design skills. Provides IMD students with a professional design portfolio to aid in the search for employment. Provides the capstone for students choosing the graphics option. Uses presentation, vector, raster, and desktop publishing software to create design-intensive portfolio pieces. Pre-requisite: (IMD 127 and IMD 128 and IMD 180 and IMD 226) or Consent of Instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

Photography
Teaches students basic photography principles and skills to compose technically proficient photographs. Emphasis is on basic camera operations, with exploration of film speeds, apertures, and shutter speeds. Explores composition and elements of lighting. Uses slide lectures, a brief overview of contemporary photography to acquaint students with past and current photography. Lecture: 3 Credits (45 contact hours).

Components: Lecture
Attributes: Technical

IMD 290(3)
Photography
Teaches students basic photography principles and skills to compose technically proficient photographs. Emphasis is on basic camera operations, with exploration of film speeds, apertures, and shutter speeds. Explores composition and elements of lighting. Uses slide lectures, a brief overview of contemporary photography to acquaint students with past and current photography. Lecture: 3 Credits (45 contact hours).

Components: Lecture
Attributes: Technical

IMD 292(3)
Photography
Teaches students basic photography principles and skills to compose technically proficient photographs. Emphasis is on basic camera operations, with exploration of film speeds, apertures, and shutter speeds. Explores composition and elements of lighting. Uses slide lectures, a brief overview of contemporary photography to acquaint students with past and current photography. Lecture: 3 Credits (45 contact hours).

Components: Lecture
Attributes: Technical

Photography
Teaches students basic photography principles and skills to compose technically proficient photographs. Emphasis is on basic camera operations, with exploration of film speeds, apertures, and shutter speeds. Explores composition and elements of lighting. Uses slide lectures, a brief overview of contemporary photography to acquaint students with past and current photography. Lecture: 3 Credits (45 contact hours).

Components: Lecture
Attributes: Technical
An understanding of the components, principles and interactions with matter. Establishes a knowledge base in atomic structure and imaging procedures, patient care, and imaging principles. Develops technical skills and procedural knowledge through observation and participation in radiographic studies with opportunities for more responsibility and independence. Emphasizes on radiographic mobile studies and image analysis. Develops technical skills and procedural knowledge through observation and participation in radiographic studies with opportunities for more responsibility and independence with previously learned procedures. Pre-requisite: IMG 104, IMG 106, IMG 108 and IMG 109. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

Advanced Patient Care in Radiography
Provides basic concepts of pharmacology, venipuncture and administration of diagnostic contrast agents. Explains the classification and scheduling of drugs. Emphasizes the appropriate delivery of patient care during radiographic procedures requiring the administration of contrast agents. Provides the knowledge base and practical skills necessary to perform special diagnostic studies. Covers fluoroscopic procedures requiring informed consent, aseptic technique, and the administration of various contrast media. Pre-requisite: IMG 104, IMG 106, IMG 108 and IMG 109. Lecture: 1.0 contact (15 contact hours). Lab: 1.0 contact (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

Radiographic Procedures II
Provides the knowledge base necessary to perform imaging procedures of the upper extremities and shoulder girdle, lower extremities and pelvic girdle, bony thorax, chest, upper airway, and plain abdomen. Covers criteria for optimal diagnostic images, including anatomical structures shown, as well as corrective positioning action to be taken for sub-optimal images. Pre-requisite: BIO 137. Pre-requisite or Co-requisite: BIO 139. Lecture: 2.0 credits (30 contact hours). Lab: 2.0 credits (60 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

Advanced Patient Care in Radiography
Provides basic concepts of pharmacology, venipuncture and administration of diagnostic contrast agents. Explains the classification and scheduling of drugs. Emphasizes the appropriate delivery of patient care during radiographic procedures requiring the administration of contrast agents. Provides the knowledge base and practical skills necessary to perform special diagnostic studies. Covers fluoroscopic procedures requiring informed consent, aseptic technique, and the administration of various contrast media. Pre-requisite: IMG 104, IMG 106, IMG 108 and IMG 109. Lecture: 1.0 contact (15 contact hours). Lab: 1.0 contact (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

Radiographic Procedures II
Provides the knowledge base necessary to perform standard imaging procedures of the spine, cranium, facial bones, paranasal sinuses, upper gastrointestinal, lower gastrointestinal, renal system, as well as fluoroscopic procedures requiring informed consent, aseptic technique, and the administration of various contrast media. Covers criteria for optimal diagnostic images, including anatomical structures shown, as well as corrective positioning action to be taken for sub-optimal images. Pre-requisite: IMG 104, IMG 106, IMG 108 and IMG 109. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

Clinical Practice II
Continues the IMG 109 clinical experience. Designed to sequentially develop, apply, critically analyze, integrate, synthesize and evaluate concepts and theories in the performance of radiologic procedures. Provides structured clinical experience through sequential competency-based assignments that focus on the upper and lower extremities, bony and visceral thorax, abdomen, bony and visceral thorax, abdomen, vertebral column, cranium, facial bones, and contrast studies of the digestive and urinary system. Pre-requisite: IMG 104, IMG 106, IMG 108 and IMG 109. Clinical: 3.0 credits (180 contact hours).

Components: Clinical
Attributes: Technical

Clinical Practice III
Continues IMG 111 by focusing on the application and evaluation of radiography in the clinical setting. Integrates concepts and the knowledge of anatomy, pathology, procedures, patient care, and imaging principles. Emphasizes on radiographic mobile studies and image analysis. Develops technical skills and procedural knowledge through observation and participation in radiographic studies with opportunities for more responsibility and independence with previously learned procedures. Pre-requisite: IMG 111 with a minimum grade of "C". Clinical: 3.0 credits (180 contact hours).

Components: Clinical
Attributes: Technical

Clinical Practice IV
Continues the IMG 209 clinical experience. Designed to sequentially develop, apply, critically analyze, integrate, synthesize and evaluate concepts and theories in the performance of radiologic procedures. Provides structured clinical experience through sequential competency-based assignments that focus on the upper and lower extremities, bony and visceral thorax, abdomen, vertebral column, cranium, facial bones, and contrast studies of the digestive and urinary systems, surgical radiographic procedures and special diagnostic procedures such as myelograms, arthrograms, hepatobiliary studies, and venography. Pre-requisite: IMG 209. Clinical: 6.0 credits (360 contact hours).

Components: Clinical
Attributes: Technical
Radiography V
Re-introduces advanced modalities used to complement diagnosis images. Covers the principles of radiation biology, radiation protection, pathology, pharmacology principles and systemic classification of diseases. Continues the discussion of professional and legal standards needed to practice by reviewing radiographic topics in preparation for a career as an imaging professional. Pre-requisite: IMG 210 with a minimum grade of “C”. Co-requisite: IMG 221. Lecture: 3.0 credits (45 contact hours) Lab: 1.0 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

IMG 221(6) Course ID:004301
Clinical V
Continues IMG 211 by focusing on the application and evaluation of radiography in the clinical setting. Integrates concepts and the knowledge of anatomy, pathology, procedures, patient care, and imaging principles. Develops technical skills and procedural knowledge through observation and participation in radiographic studies with opportunities for more responsibility and independence with previously learned procedures. Pre-requisite: IMG 211 with a minimum grade of “C”. Co-requisite: IMG 220. Clinical: 6.0 credits (360 contact hours).

Components: Clinical
Attributes: Technical

IMG 224(2) Course ID:005615
Radiation Protection & Biology
Provides an overview of the principles of the interaction of radiation with living systems. Radiation effects on molecules, cells, tissues and the body as a whole are presented. Discusses factors affecting biological response, including acute and chronic effects of radiation. Presents an overview of the principles of radiation protection, including the responsibilities of the radiographer for patients, personnel and the public. Incorporates radiation health and safety requirements of federal and state regulatory agencies. Accreditation agencies and health care organizations. Pre-requisite: IMG 214 and IMG 216 and IMG 219. Lecture: 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical

IMG 226(1) Course ID:005616
Radiographic Pathology
Introduces concepts related to disease and etiological considerations with emphasis on radiographic appearance of disease and impact on exposure factor selection. Pre-requisite: IMG 214 and IMG 216 and IMG 219. Lecture: 1.0 credit (15 contact hours).

Components: Lecture
Attributes: Technical

IMG 228(2) Course ID:005619
Radiography Seminar
Provides capstone information needed by the entry level radiographer; includes the radiography practitioner’s role in the health care delivery system, continuing education, and professional development, advanced modalities, accreditation organizations, national registration and state licensure, as well as the benefits of membership and activity in professional societies. Examines the principles, practices, and policies of health care organizations, and the delivery of health care in the United States. Pre-requisite: IMG 214, IMG 216 and IMG 219. Lecture: 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical

IMG 229(6) Course ID:005617
Clinical Practice V
Continues the IMG 219 clinical experience Designed to sequentially develop, apply, critically analyze, integrate, synthesize and evaluate concepts and theories in the performance of radiologic procedures. Provides structured clinical experience through sequential competency-based assignments that focus on the upper and lower extremities, bony and visceral thorax, abdomen, vertebral column, cranium, facial bones, and contrast studies of the digestive and urinary systems, surgical radiographic procedures, and special diagnostic procedures such as myelograms, arthrograms, hepatobiliary studies, and venography. Pre-requisite: IMG 214, IMG 216 and IMG 219. Clinical: 6.0 credits (360 contact hours).

Components: Clinical
Attributes: Technical

IMG 230(3) Course ID:004826
Sectional Anatomy for Advanced Medical Imaging
Provides content on computed tomography and magnetic resonance imaging (CT/MRI) procedures including patient care, image acquisition, and cross sectional anatomy. Pre-requisite: ((IMG 201 or IMG 216 or DMI 130) with a minimum grade of C) or consent of instructor defined by enrollment in an accredited Nuclear Medicine program or enrollment in second year of an accredited Radiography program or ARRT registry or NMTCB registry. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

IMG 240(3) Course ID:006617
Pathology for Advanced Medical Imaging Modalities
Examines diseases commonly diagnosable via computed tomography (CT) and/or magnetic resonance imaging (MRI). Traces the disease process or trauma process from its description, etiology, symptoms, and diagnosis with appearance on CT and/or MRI scans. Pre-requisite: ((IMG 201 or IMG 216 or DMI 130) with a minimum grade of C) or consent of instructor defined by enrollment in an accredited Nuclear Medicine program or enrollment in second year of an accredited Radiography program or ARRT registry or NMTCB registry. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

IMG 250(3) Course ID:004827
Computed Tomography Physics & Instrumentation
Explores the physical principles and instrumentation involved in computed tomography (CT). Examines the history and evolution of CT, and the physics of radiation and CT. Includes the study of configuration, collimation, functions, processing, and quality of CT systems operations. Pre-requisite: ((IMG 201 or IMG 216 or DMI 130) with a minimum grade of C) or consent of instructor defined by enrollment in an accredited Nuclear Medicine program or enrollment in second year of an accredited Radiography program or ARRT registry or NMTCB registry. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

IMG 255(3) Course ID:004828
Magnetic Resonance Physics & Instrumentation
Explores the physical principles and instrumentation involved in magnetic resonance imaging (MRI). Examines the history and evolution of MRI and the physical process of MRI and how MRI is performed. Includes the study of configuration, collimation, functions, processing, and quality of MRI systems operations. Pre-requisite: ((IMG 201 or IMG 216 or DMI 130) with a minimum grade of C) or consent of instructor defined by enrollment in an accredited Nuclear Medicine program or enrollment in second year of an accredited Radiography program or ARRT registry or NMTCB registry. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

IMG 260(3) Course ID:005332
Computed Tomography Imaging Procedures
Examines the procedures, positioning, and equipment involved in computed tomography (CT) imaging. Pre-requisite: ((IMG 201 or IMG 216 or DMI 130) with a minimum grade of C) or consent of instructor defined by enrollment in an accredited Nuclear Medicine program or enrollment in second year of an accredited Radiography program or ARRT registry or NMTCB registry. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

IMG 265(3) Course ID:004829
Magnetic Resonance Imaging Technology
Focuses on patient care and imaging areas of magnetic resonance imaging (MRI) and magnetic resonance angiography (MRA). Explores topics of image formation, tissue characteristics, resolution, imaging optimizing, and parameters, post processing, and patient characteristics. Discusses specific MRI and MRA exams for image body systems. Pre-requisite: ((IMG 201 or IMG 216 or DMI 130) with a minimum grade of C) or consent of instructor defined by enrollment in an accredited Nuclear Medicine program or enrollment in second year of an accredited Radiography program or ARRT registry or NMTCB registry. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

IMG 285(4) Course ID:015558
Computed Tomography Clinical Practice I
Provides a structured clinical experience through sequential competency-based assignments that focuses on the upper and lower extremities, bony and visceral thorax, abdominal and pelvic cavities, and cranium. Provides necessary clinical correlation of data acquisition concepts and basic scanning parameters. Pre-requisite: ARRT registered as a Radiographer or Nuclear Medicine Technologist, or NMTCB registered as a Nuclear Medicine Technologist, and Kentucky radiography license or a provisional license as a nuclear medicine technologist to perform CT. Pre-requisite or Co-requisite: IMG 230, IMG 240, IMG 250 and IMG 260. Clinical: 4.0 credits (240 contact hours).

Components: Clinical
Attributes: Technical

IMG 295(4) Course ID:017388
Clinical Practice in Magnetic Resonance Imaging
Designed to provide the post-registry radiographer or nuclear medicine technologist with the opportunity to establish clinical competencies in the various categories of MRI, including the head, neck, thorax, abdomen & pelvis, spine, and musculoskeletal system. Includes experience in quality control procedures, image analysis, and the storage and retrieval of electronic images. Provides clinical experience including magnetic safety, screening of the patient, coworkers, the general public and anyone entering the magnetic scanning room. Pre-Requisites: IMG 265 and IMG 265. Clinical: 4 credits (240 contact hours).

Components: Clinical
Attributes: Technical

IMT 100(3) Course ID:001578
Welding for Maintenance
Provides basic instruction needed for student to weld using SMAW (Stick), GMAW (MIG), GTAW (TIG), and Oxy-Fuel processes. Co-requisite: (IMT 101 or IMT 1011 - IMT 1014) or Consent of Instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

IMT 101(2) Course ID:001579
Welding for Maintenance Lab
Provides application of basic welding skills used in SMAW (Stick), GMAW (MIG), GTAW (TIG) and Oxy-Fuel processes. Co-requisite: IMT 100 or consent. Laboratory: 2 credits (60 contact hours).

Components: Laboratory
Attributes: Course Also Offered in Modules, Technical

IMT 110(3) Course ID:001580
Industrial Maintenance Electrical Principles
Introduces the theory of electricity and magnetism and the relationship of voltage, current, resistance, and power in electrical circuits. Develops an understanding of alternating and direct current fundamentals. Applies formulas to analyze the operation of AC and DC circuits. Co-requisite: IMT 111 or Consent of Instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical
IMT 111(2)  Course ID:001581
Industrial Maintenance Electrical Principles Lab
Verifies knowledge of basic theory by making measurements in working AC and DC circuits. Provides for the construction of various types of circuits and the measurement of their parameters. Stresses the use of test equipment, safety, and troubleshooting. Co-requisite: IMT 110 or Consent of Instructor. Laboratory: 2 credits (30 contact hours).

Components: Laboratory
Attributes: Course Also Offered in Modules, Technical

IMT 115(2)  Course ID:001582
Maintenance Machining I
Includes fundamental machining operations necessary for the success of Maintenance Technicians in the field who are required to be proficient in basic machining operations. Co-requisite: IMT 116. Lecture: 2 credits (30 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

IMT 116(5)  Course ID:001583
Maintenance Machining I Lab
Includes the application of fundamental machining operations necessary for the success of Maintenance Technicians in the field who are required to be proficient in basic machining operations. Co-requisite: IMT 115 or Consent. Laboratory: 5 credits (150 contact hours).

Components: Laboratory
Attributes: Course Also Offered in Modules, Technical

IMT 120(3)  Course ID:001584
Industrial Maintenance Rotating Machinery
Students will learn the basic principles needed for the proper maintenance of AC and DC motors. Pre-requisite: Permission of the instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

IMT 121(2)  Course ID:001585
Industrial Maintenance Rotating Machinery Lab
Provides practical experience in the construction, operation and maintenance of AC motors and alternators and DC motors and generators. Co-requisite: IMT 120 or Consent of Instructor. Laboratory: 2 credits (60 contact hours).

Components: Laboratory
Attributes: Technical

IMT 140(3)  Course ID:005594
Industrial Mechanics
Introduces the fundamental principles of fluid power, mechanical systems, and the relationship between voltage, current, resistance, and power in electrical circuits. Presents a broad range of technical information used in industry today by technicians, mechanics, and maintenance personnel. Co-requisite: IMT 141. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

IMT 141(1)  Course ID:005595
Industrial Mechanics Lab
Provides laboratory experiences for constructing and adjusting basic fluid power circuits, installing and adjusting mechanical drive components, and taking measurements in operational AC and DC electrical circuits. Stresses the use of common hand tools, test instruments, safety, and troubleshooting. Co-requisite: IMT 140. Lab: 1 credit (30 contact hours).

Components: Laboratory
Attributes: Technical

IMT 150(3)  Course ID:001588
Maintaining Industrial Equipment I
Introduces the student to maintenance techniques and procedures used to maintain industrial equipment. Co-requisite: IMT 151 or Consent of Instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

IMT 151(2)  Course ID:001589
Maintaining Industrial Equipment I Lab
Provides the student with lab experience in the maintenance of industrial equipment. Co-requisite: IMT 150 or Consent of Instructor. Laboratory: 2 credits (60 contact hours).

Components: Laboratory
Attributes: Course Also Offered in Modules, Technical

IMT 160(2)  Course ID:017373
FANUC Robot Operations
Introduces students to basic FANUC robotics programming as well as providing introductory operational skills needed in an industrial environment. Integrated Lecture: 1 credit (15 contact hours). Integrated Lab: 1 credit (30 contact hours).

Components: Integrated Laboratory, Integrated Lecture
Attributes: Technical

IMT 161(2)  Course ID:017374
KUKA Robot Level I Robot Operation
Introduces students to basic KUKA robotic programming as well as providing introductory operational skills needed in an industrial environment. Integrated Lecture: 1 credit (15 contact hours). Integrated Lab: 1 credit (30 contact hours).

Components: Integrated Laboratory, Integrated Lecture
Attributes: Technical

IMT 162(2)  Course ID:017377
YASKAWA/MOTOMAN Robot Operations
Introduces students to basic YASKAWA/MOTOMAN robotic programming as well as providing introductory operational skills needed in an industrial environment. Integrated Lecture: 1 credit (15 contact hours). Integrated Lab: 1 credit (30 contact hours).

Components: Integrated Laboratory, Integrated Lecture
Attributes: Technical

IMT 198(1 - 8)  Course ID:001590
Instructor Consent Required
Practicum
Provides supervised on-the-job work experience related to the student's educational objectives. Students participating in the Practicum do not receive compensation. Pre-requisite: Permission of instructor. Practicum: 1-8 credits (75-600 contact hours).

Components: Practicum
Attributes: Technical

IMT 199(1 - 8)  Course ID:001591
Cooperative Education
Provides supervised on-the-job work experience related to the student's educational objective. Students participating in the Co-op Education receive compensation for their work. Pre-requisite: Permission of Instructor. Co-op: 1 - 8 credits (75-600 contact hours).

Components: Co-op
Attributes: Technical

IMT 200(4)  Course ID:007372
Industrial Robotics and Robotic Maintenance
Provides the industrial maintenance student an introduction to the theory of robots including applications, basic programming, components, industrial robotic safety standards, industrial robots classifications, key programming techniques, robotic motion concepts, and terminology. Instructs students on the concepts of preventive and predictive maintenance techniques required for a robot and their backup systems and recovery procedures. Provides the opportunity for the industrial maintenance student to develop, set up, and integrate work cells into manufacturing systems at a beginning level. Pre-requisite: IMT 110 and IMT 111 or Consent of Instructor. Lecture/Lab: 4.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

IMT 220(3)  Course ID:001592
Industrial Maintenance Electrical Motor Controls I
Addresses the common symbols used in motor control circuits, the fundamentals of electrical schematics and wiring diagrams, the principles of relays, motor starters, switches, pilot devices, sensing devices, indicator lights, and introduces the different types and operations of basic motor control circuits. Pre-requisite: IMT 110, & IMT 111. Co-requisite: IMT 221. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Course Also Offered in Modules, Technical

IMT 221(2)  Course ID:001593
Industrial Maintenance Electrical Motor Controls I Lab
Includes an application of common symbols used in motor control circuits, fundamentals of electrical schematics and wiring diagrams, principles of relays, motor starters, switches, pilot devices, sensing devices, indicator lights, and the different types and operations of basic motor control circuits. Pre-requisite: (IMT 110 and IMT 111) or consent of instructor. Co-requisite: IMT 220. Laboratory: 2.0 credits (60 contact hours).

Components: Laboratory
Attributes: Course Also Offered in Modules, Technical

IMT 222(2)  Course ID:006422
Industrial Maintenance Motor Controls II Lab
Provides advanced study of motor controls in industry. Addresses open and closed loop control systems, servo motors, encoders, AC and DC motors and industry standard color coding. Pre-requisite: (IMT 110 and IMT 111 and IMT 220 and IMT 221) or consent of instructor. Co-requisite: IMT 223. Lecture: 2 credits (30 contact hours).

Components: Lecture
Attributes: Technical

IMT 230(5)  Course ID:001594
Industrial Maintenance of PLCs
This course includes the theory of programmable logic controllers to include installation, programming, interfacing, and troubleshooting of industrial PLC’s. Pre-requisite: IMT 240.

Components: Laboratory
Attributes: Technical

IMT 231(2)  Course ID:001595
Industrial Maintenance of PLC’s Lab
Addresses the diversity of PLC control devices and applications used in industry today. Safety and electrical lockouts are also included. Pre-requisite: [IMT 110 and IMT 111 or IMT 130 and IMT 131] with a grade of C or greater] or Consent of Instructor. Co-requisite: IMT 230 or Consent of Instructor. Laboratory: 2 credits (60 contact hours).

Components: Laboratory
Attributes: Technical

IMT 240(6)  Course ID:001596
Industrial Maintenance Motor Control Concepts
Addresses the diversity of control devices and applications used in industry today with safety and electrical lockouts included. The basic theory of programmable logic controllers is also included. Pre-requisite: [IMT 110 and IMT 111] or IMT 130 and IMT 131] with a grade of C or greater] or Consent of Instructor. Co-requisite: IMT 241 or Consent of Instructor. Lecture: 6 credits (90 contact hours).

Components: Lecture
Attributes: Technical

IMT 250(2)  Course ID:001598
Maintaining Industrial Equipment II
Integrates the student's accumulative knowledge from the IMT 150 and IMT 151 courses. Emphasizes troubleshooting techniques and applied machine repair situations that require the student to apply learned skills from all areas of the curriculum. Pre-requisite: (IMT 150 and 151) with a grade of "C" or greater or consent of instructor. Co-requisite: IMT 251 or consent of instructor. Lecture: 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical
IMT 251 (3) Course ID: 001599
Maintaining Industrial Equipment II Lab
Complements IMT 250 and consists of advanced, specific and assigned machine repair tasks. Pre-requisite: (IMT 150 and 151) with a grade of "C" or greater or consent of Instructor. Co-requisite: IMT 250 or consent of Instructor. Laboratory: 3.0 credits (90 contact hours). Lab: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

IMT 260 (7) Course ID: 006546
Presswork and Die Maintenance
Includes the fundamental concepts and machining operations needed by the industrial maintenance technician to be proficient in the field of stamping press and die maintenance. Pre-requisite: IMT 100 and IMT 101 and (IMT 115 & IMT 116) or (MTT 114) or (MTT 110 & MTT 112) or consent of Instructor. Lecture: 2 credits (30 contact hours), Lab: 5 credits (150 contact hours).
Components: Lecture
Attributes: Technical

IMT 280 (3) Course ID: 001600
Advanced Programmable Logic Controllers
Addresses the diversity of motor starters, control devices, and wiring diagrams. Pre-requisite: IMT 2201 or Consent of Instructor. Co-requisite: IMT 2212. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

IMT 281 (2) Course ID: 001601
Programmable Logic Controllers Lab
Provides practical applications of the theory in IMT 280 to include installation, programming, interfacing and troubleshooting of industrial PLCs. Pre-requisite: ((IMT 220 and IMT 221) with a grade of "C" or greater) or Consent of Instructor. Co-requisite: IMT 280 or Consent of Instructor. Laboratory: 2 credits (60 contact hours).
Components: Laboratory
Attributes: Course Also Offered in Modules, Technical

IMT 289 (1) Course ID: 007373
Industrial Maintenance Technology Capstone
Serves as the capstone course for the Industrial Maintenance Technology degree program. Integrates prior learning outcomes into a single integrated learning experience. Includes preparation for an exit exam that all program graduates must take. Pre-requisite: (IBRX 120 or ELT 102 or IMT 100 and FPX 101 and IMT 100 and IMT 101 and IMT 111 and IMT 150 and IMT 151 and IMT 220 and IMT 221) or consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical

IMT 290 (1 - 3) Course ID: 001602
Instructor Consent Required
Special Problems
Provides an opportunity to develop advanced skills in topics related to industrial maintenance. Pre-requisite: Consent of Instructor. Laboratory: 1-3 credits (30-90 contact hours).
Components: Laboratory
Attributes: Technical

IMT 1001 (0.75) Course ID: 005915
Welding for Maintenance Safety
Provides basic instruction needed for student to wield using Oxy-Fuel. Co-requisite: IMT 1011 (or consent of instructor). Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

IMT 1002 (0.75) Course ID: 005916
Welding for Maintenance SMAW (Stick Welding)
Provides basic instruction needed for student to wield using Shielded Metal Arc Welding (SMAW). Co-requisite: IMT 1012 (or consent of instructor). Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

IMT 1003 (0.75) Course ID: 005917
Welding for Maintenance GMAW (MIG Welding)
Provides instruction of setup and use of GMAW (MIG welding) equipment. Co-requisite: IMT 1013 (or consent of instructor). Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

IMT 1004 (0.75) Course ID: 005918
Welding for Maintenance GTAW (TIG Welding)
Provides instruction of setup and use of GTAW (TIG welding) equipment. Co-requisite: IMT 1014 (or consent of instructor). Lecture: 0.75 credit (11.25 contact hours).
Components: Lecture

IMT 1011 (0.5) Course ID: 005919
Welding for Maintenance Safety and Cutting Lab
Provides application of welding safety and use of oxy-fuel cutting equipment. Co-requisite: IMT 1001 (or consent of instructor). Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

IMT 1012 (0.5) Course ID: 005920
Welding for Maintenance SMAW (Stick Welding) Lab
Provides application of setup and use of SMAW (stick welding) equipment. Co-requisite: IMT 1002 (or consent of instructor). Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

IMT 1013 (0.5) Course ID: 005921
Welding for Maintenance GMAW (MIG Welding) Lab
Provides application of setup and use of GMAW (MIG welding) equipment. Co-requisite: IMT 1003 (or consent of instructor). Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

IMT 1014 (0.5) Course ID: 005922
Welding for Maintenance GTAW (TIG Welding) Lab
Provides application of setup and use of GTAW (TIG welding) equipment. Co-requisite: IMT 1004 (or consent of instructor). Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

IMT 1151 (0.2) Course ID: 006406
General Shop Knowledge
Provides application of setup and use of GTAW (TIG welding) equipment. 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, threading. Co-requisite: IMT 1154 or Consent of Instructor. Laboratory: 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, traming, selection of feeds and speeds, form tools, dressing grinding wheels. Pre-requisite: IMT 1161 or Consent of Instructor. Co-requisite: IMT 1155 or Consent of Instructor. Laboratory: 0.6 credit (9 contact hours).
Components: Lecture

IMT 1161 (0.5) Course ID: 006411
General Shop Knowledge Lab
Includes the application of fundamental machining operations necessary for the success of Maintenance Technicians in the field who are required to be proficient in basic machining operations. Co-requisite: IMT 1162 or Consent of Instructor. Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

IMT 1162 (0.5) Course ID: 006412
Vertical and Horizontal Bandsaw Operations Lab
Introduces vertical and horizontal bandsaw operations including the selection of feeds and speeds as well as blade welding. Co-requisite: IMT 1152 or Consent of Instructor. Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

IMT 1163 (0.5) Course ID: 006413
Drill Press Operations and Procedures Lab
Introduces drill press operations including the selection of feeds and speeds, layout, drill bit selection and sharpening, and precision drilling operations. Co-requisite: IMT 1153 or Consent of Instructor. Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory

IMT 1164 (2) Course ID: 006414
Lathe Operations and Procedures Lab
Introduces lathe operations including lathe components, grinding tool bits, the selection of feeds and speeds, turning operations, and threading. Co-requisite: IMT 1154 or Consent of Instructor. Laboratory: 2 credits (60 contact hours).
Components: Laboratory

IMT 1165 (1.5) Course ID: 006415
Milling Machine and Surface Grinder Operations and Procedures Lab
Introduces milling and surface grinding operations including vise alignment, traming, selection of feeds and speeds, form tools, dressing grinding wheels. Pre-requisite: IMT 1161 or Consent of Instructor. Co-requisite: IMT 1155 or Consent of Instructor. Laboratory: 1.5 credit (45 contact hours).
Components: Laboratory

IMT 2201 (1) Course ID: 006416
Introduction to Motor Controls
Addresses the importance of electrical safety and the general fundamentals of motor controls. Pre-requisite: (IMT 110 and IMT 111) or Consent of Instructor. Co-requisite: IMT 2211. Lecture: 1 credit (15 contact hours).
Components: Lecture

IMT 2202 (1) Course ID: 006417
Motor Starters and Pilot Devices
Addresses the diversity of motor starters, control devices, and circuitry. Introduces the different types and operations of basic control circuits while reinforcing the common symbols used in motor control circuits as well as interpreting and drawing electrical schematics and wiring diagrams. Pre-requisite: IMT 2201 or Consent of Instructor. Co-requisite: IMT 2212. Lecture: 1 credit (15 contact hours).
Components: Lecture

IMT 2203 (1) Course ID: 006418
Motor Control Circuits
Explores aspects of electrical symbols and specialized motor control circuit. Pre-requisite: IMT 2202 or Consent of Instructor. Co-requisite: IMT 2213. Lecture: 1 credit (15 contact hours).
Components: Lecture

IMT 2212 (0.5) Course ID: 006420
Motor Starters and Pilot Devices Lab
Addresses the diversity of motor starters, control devices, and circuitry. Pre-requisite: IMT 2211 or Consent of Instructor. Co-requisite: IMT 2202. Laboratory: 0.5 credit (15 contact hours).
Components: Laboratory
IMT 2213(1) Course ID:006421
Motor Control Circuits Lab
Explores aspects of electrical symbols and specialized motor control circuits. Pre-requisite: IMT 2212 or Consent of Instructor. Co-requisite: IMT 2203. Laboratory: 1.0 credit (30 contact hours).

Components: Laboratory

IMT 2231(0.5) Course ID:006434
Principles in Process Control and Automation Lab
Provides the lab component for IMT 2221. Covers open and closed loop systems and how they relate to servo and motor encoders. Pre-requisite: (IMT 110 and IMT 111) or Consent of Instructor. Co-requisite: IMT 2221. Lecture: 0.5 credits (15 contact hours).

Components: Laboratory

IMT 2232(0.5) Course ID:006435
Industry Standards for Control Circuit Wiring and Troubleshooting Methods Lab
Provides the lab component for IMT 2222. Covers industry standards related to color coding of industrial wiring control cabinets. Provides for troubleshooting techniques using electrical hand tools and developing and interpreting troubleshooting flow charts to determine phase failure and voltage drops. Pre-requisite: (IMT 110 and IMT 111) or Consent of Instructor. Co-requisite: IMT 2222. Laboratory: 0.5 credits (15 contact hours).

Components: Laboratory

IMT 2233(1) Course ID:006436
Industry Standards for Installing Motors/Electronic Variable Speed Drives II
Provides the lab component for IMT 2223. Covers how to properly evaluate maintenance procedures used for installation of AC and DC motors, proper start up and shut down of electrical systems and fault recovery. Pre-requisite: (IMT 110 and IMT 111) or Consent of Instructor. Co-requisite: IMT 2223. Laboratory: 1 credit (30 contact hours).

Components: Laboratory

IMT 2234(0.5) Course ID:006547
Stamping Press Basics
Addresses press and production safety, various types of presses, and press operations. Pre-requisite: (IMT 115 & IMT 116) or (M(T 114) or (MTT 110 & MTT 112) or Consent of Instructor. Lecture: 0.5. (Contact Hours 7.5).

Components: Lecture

IMT 2235(0.5) Course ID:006548
Stamping Die Basics
Addresses the basics of stamping dies including the production of dies, die safety, rigging and setup of dies, die bolting and clamping, and OSHA die identification. Pre-requisite: IMT 2601 or Consent of Instructor. Lecture: 0.3 credits (4.5 contact hours), Lab: 0.2 credits (6 contact hours).

Components: Lecture

IMT 2603(1.3) Course ID:006550
Stamping Die Processes
Addresses various stamping die processes such as bending, forming, drawing, squeezing, and coining. Pre-requisite: IMT 2602 or Consent of Instructor. Lecture: 1.3 (Contact Hours 36).

Components: Lecture

IMT 2604(0.8) Course ID:006549
Metallurgy of Die Components
Addresses the characteristics of various tool and die steels, the properties of low carbon steels and cast iron, and die surface coatings and treatments. Pre-requisite: IMT 2603 or Consent of Instructor. Lecture: 0.1 credits (1.5 Contact Hours), Lab: 0.5 credits (15 contact hours).

Components: Lecture

IMT 2605(1.2) Course ID:006551
Anatomy of Stamping Dies
Addresses pads and stripper, 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 die components, repairing forming ribs and embossments, performing electrical and welding repairs, performing hand finishing, and explaining the repair of nitrogen pressure systems. Pre-requisite: IMT 2606 or Consent of Instructor. Lecture: 0.1 credits (1.5 contact hours), Lab: 1.5 credits (45 contact hours).

Components: Lecture

IMT 2609(0.75) Course ID:006424
Introduction to Programmable Logic Controllers
Provides an overview of Programmable Controllers, their hardware and functions. Pre-requisite: (IMT 220 and IMT 221 with a grade of “C” or greater) or Consent of Instructor. Co-requisite: IMT 2611 or Instructor Consent. Lecture: 0.75 credit. (11.25 contact hours).

Components: Lecture

IMT 2608(0.75) Course ID:006425
Programming Instructions in PLCs
Provides an overview in programming Programmable Logic Controller Timers and Counters. Co-requisite: IMT 2612 or Instructor Consent. Lecture: 0.75 credit (11.25 contact hours).

Components: Lecture

IMT 2610(0.75) Course ID:006426
Number Systems and Data Manipulation in PLCs
Includes different numbering systems, their transfer from one location to another, comparing, manipulation and common math instructions used in PLC. Co-requisite: IMT 2613 or Instructor Consent. Lecture: 0.75 credit (11.25 contact hours).

Components: Lecture

IMT 2612(0.75) Course ID:006427
Advanced Instructions and Troubleshooting PLCs Lab
Covers program control instructions, sequencers, and shift registers. Includes troubleshooting PLC issues and using the forcing command. Co-requisite: IMT 2604 or Instructor Consent. Laboratory: 0.5 credit (15 contact hours).

Components: Laboratory

INF Informatics

INF 120(3) Course ID:007282
Elementary Programming
An elementary introduction to programming for those with no previous programming experience. Emphasis on understanding how to read and write basic procedural programs, and on understanding the concepts of algorithm and execution. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: SN - Science, University Course (Northern Kentucky University)

INF 128(3) Course ID:007283
Principles of Informatics
Multiple-disciplinary exploration of the nature of information; how it is represented, processed, shared, preserved, and protected. Topics drawn from the fields of computing, communication, business, the natural and social sciences, and the humanities. Identifies enduring principles examines impacts on individuals and society; provides practice with a variety of digital technologies. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: University Course (Northern Kentucky University)

INF 260(3) Course ID:007284
Object Oriented Programming I
Elementary object-oriented programming concepts and practice: types, decisions, loops, methods, arrays, classes; design and problem-solving. An intensive introduction intended for students with programming experience. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: University Course (Northern Kentucky University)

INF 282(3) Course ID:007286
Introduction to Databases
Core concepts for the design, creation, and manipulation of relational databases. Analysis of data requirements, conceptual modeling, definition of the relational model, relational database design and normalization, and database implementation; manipulation of relational databases using relational algebra with SQL. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: University Course (Northern Kentucky University)

INF 286(3) Course ID:007287
Introduction to Web Development
An introduction to web design and development for majors in the informatics fields. Web page creation and HTML; site organization and best practices; e-business planning, models and strategies; overview of XML and CSS; introduction to client-side and server-side programming. Lecture 3.0 credits (45 contact hours).

Components: Lecture
Attributes: University Course (Northern Kentucky University)
INS 100(3) Course ID:006586
**Introduction to Insurance and Risk Management**
Introduces property-casualty insurance and is a foundation for the study of insurance. Provides information on types of insurance, providers, regulatory environment, and performance measures. Describes the function of marketing, underwriting and claims. Covers insurance as a contract, introduces both property and liability loss exposure and policy provisions, and provides a basic discussion of risk management as a means of managing loss exposures. Pre-requisite: Reading, English, and Mathematics assessment scores above the KCTCS developmental placement level or successful completion of the prescribed developmental course(s). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

INS 181(3) Course ID:006587
**Foundations of Insurance Production**
Introduces principles of insurance production and agency and sales management. Emphasizes insurance products and insurance markets in the context of personal lines coverages as well as limited commercial lines coverages. Pre-requisite: Reading and English assessment scores above the KCTCS developmental placement level or successful completion of the prescribed developmental course(s). INS 100 or consent. MT 150 or above. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

IRW 085(4) Course ID:015875
**Integrated Reading and Writing I**
Emphasizes proficiency in reading comprehension, vocabulary, and critical thinking skills to prepare students for college reading through individualized and/or group instruction and practice. Applies writing as a process with emphasis on paragraph-length assignments, basic conventions of standard English as these apply to students’ own work, writing in response to reading, and the use of technology to produce and share writing. Pre-requisite: Placement by KCTCS Assessment and Placement Policy. Lecture: 4.0 credits (60 contact hours).
Components: Lecture Attributes: Developmental/Remedial Learning Skills

IRW 095(4) Course ID:007214
**Integrated Reading and Writing**
Emphasizes critical reading skills to develop vocabulary techniques, active reading strategies, comprehension accuracy, and interpretation of visual elements in texts. Applies writing as a process with instruction in intermediate writing skills and technology emphasizing organization, idea development through critical thinking, and editorial improvements through multi-paragraph writing. Introduces basic research and documentation through writing in response to reading. Pre-requisite: Placement by KCTCS Assessment and Placement Policy. Lecture: 4.0 credits (60 contact hours).
Components: Lecture Attributes: Developmental/Remedial Learning Skills

INF 125(2) Course ID:001607
**Introduction to Drywall**
This course includes cutting and hanging drywall. The manufacturing processes are covered along with product options for special applications. Installation of metal studs in fabrication of walls is included also. Laboratory: 2 credits (20 contact hours).
Components: Laboratory Attributes: Technical

ISM 102(4) Course ID:003972
**Fundamentals of Instrumentation**
Introduces concepts of instrumentation devices and laboratory techniques used for monitoring and controlling manufacturing processes. Includes component identification and application, basic conversions, accuracy of measuring devices, tubing use and selection, repair procedures and the theory of operation and calibration of pressure, and process measuring instruments. Covers the need for calibration and the use of various calibration standards. Includes safety precautions, and regulations encountered in the instrumentation field. Lecture: 3 credits (45 contact hours). Lab: 1 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical

ISX 100(3) Course ID:001622
**Industrial Safety**
This course provides practical training in industrial safety. The students are taught to observe general safety rules and regulations, to apply work site and shop safety rules, and to apply OSHA regulations. Students are expected to obtain certification in first aid and cardiopulmonary resuscitation. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

ISX 105(2) Course ID:015675
**General Industrial Safety**
Introduces the history of the safety movement under the standards of the Occupational Safety and Health Administration (OSHA). Provides entry level workers with information about their rights and employer responsibilities. Emphasizes hazard identification, avoidance, control and prevention. Lecture: 2.0 credits (30 contact hours).
Components: Lecture Attributes: Technical

ISX 1001(1) Course ID:016784
**Safety & Universal Precaution**
This course provides practical training in industrial safety. The students are taught to observe general safety rules and regulations, to apply work site and shop safety rules, and to apply OSHA regulations. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

ISX 1002(1) Course ID:016785
**Fire Prevention & Hazardous Com**
This course provides practical training in industrial safety. The students are taught to observe general safety rules and regulations, to apply work site and shop safety rules, and to apply OSHA regulations specifically related to fire prevention and hazardous communication procedures. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

ISX 1003(1) Course ID:016786
**CPR & First Aid**
This course provides practical training in industrial safety. Students are expected to obtain certification in first aid and cardiopulmonary resuscitation. Lecture: 1.0 credits (15 contact hours).
Components: Lecture

ISX 1051(0.67) Course ID:015673
**10-hour General Industry**
Provides entry level workers with information about their rights and employer responsibilities. Emphasizes hazard identification, avoidance, control and prevention. Lecture: 0.67 credits (10 contact hours).
Components: Lecture

ISX 1052(1.33) Course ID:015674
**General Industry Topics**
Introduces the history of the safety movement under the standards of the Occupational Safety and Health Administration (OSHA). Emphasizes hazard identification, avoidance, control and prevention. (Covers selected topics and standards for general industry under OSHA.) OSHA certificate may be available upon successful completion of all required course topics (and must be within six months of completing ISX 1051). Pre-requisite OR Co-requisite: ISX 1051. Lecture: 1.33 credits (20 contact hours).
Components: Lecture

JAT 101(3) Course ID:002222
**Introduction to Communication Media**
Lectures, readings, and other materials provide an introductory survey of the journalism, advertising, and telecommunications professions. This course will foster an understanding of the historical development, theory, effects, regulation, practice, and professional opportunities of these three industries. Students will gain an awareness of the possibilities and limitations of evolving communication technologies, preparing them to become intelligent consumers, producers, and managers of communication media. Lecture: 3 credits (45 contact hours)
Components: Lecture Attributes: Other

JAT 241(1 - 4) Course ID:002223
**Communications Practicum**
Supervised laboratory work in the 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 (30/30:1 ratio contact hours).
Components: Lecture Attributes: Other

INF 125(2) Course ID:001607
**Introduction to Drywall**
This course includes cutting and hanging drywall. The manufacturing processes are covered along with product options for special applications. Installation of metal studs in fabrication of walls is included also. Laboratory: 2 credits (20 contact hours).
Components: Laboratory Attributes: Technical

IRW Integrated Reading and Writing

IRW 095(4) Course ID:007214
**Integrated Reading and Writing**
Emphasizes critical reading skills to develop vocabulary techniques, active reading strategies, comprehension accuracy, and interpretation of visual elements in texts. Applies writing as a process with instruction in intermediate writing skills and technology emphasizing organization, idea development through critical thinking, and editorial improvements through multi-paragraph writing. Introduces basic research and documentation through writing in response to reading. Pre-requisite: Placement by KCTCS Assessment and Placement Policy. Lecture: 4.0 credits (60 contact hours).
Components: Lecture Attributes: Developmental/Remedial Learning Skills

IRW 085(4) Course ID:015875
**Integrated Reading and Writing I**
Emphasizes proficiency in reading comprehension, vocabulary, and critical thinking skills to prepare students for college reading through individualized and/or group instruction and practice. Applies writing as a process with emphasis on paragraph-length assignments, basic conventions of standard English as these apply to students’ own work, writing in response to reading, and the use of technology to produce and share writing. Pre-requisite: Placement by KCTCS Assessment and Placement Policy. Lecture: 4.0 credits (60 contact hours).
Components: Lecture Attributes: Developmental/Remedial Learning Skills

INF Interior Finishing

INS 100(3) Course ID:006586
**Introduction to Insurance and Risk Management**
Introduces property-casualty insurance and is a foundation for the study of insurance. Provides information on types of insurance, providers, regulatory environment, and performance measures. Describes the function of marketing, underwriting and claims. Covers insurance as a contract, introduces both property and liability loss exposure and policy provisions, and provides a basic discussion of risk management as a means of managing loss exposures. Pre-requisite: Reading, English, and Mathematics assessment scores above the KCTCS developmental placement level or successful completion of the prescribed developmental course(s). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

INS 181(3) Course ID:006587
**Foundations of Insurance Production**
Introduces principles of insurance production and agency and sales management. Emphasizes insurance products and insurance markets in the context of personal lines coverages as well as limited commercial lines coverages. Pre-requisite: Reading and English assessment scores above the KCTCS developmental placement level or successful completion of the prescribed developmental course(s). INS 100 or consent. MT 150 or above. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

IRW 085(4) Course ID:015875
**Integrated Reading and Writing I**
Emphasizes proficiency in reading comprehension, vocabulary, and critical thinking skills to prepare students for college reading through individualized and/or group instruction and practice. Applies writing as a process with emphasis on paragraph-length assignments, basic conventions of standard English as these apply to students’ own work, writing in response to reading, and the use of technology to produce and share writing. Pre-requisite: Placement by KCTCS Assessment and Placement Policy. Lecture: 4.0 credits (60 contact hours).
Components: Lecture Attributes: Technical

IRW 095(4) Course ID:007214
**Integrated Reading and Writing**
Emphasizes critical reading skills to develop vocabulary techniques, active reading strategies, comprehension accuracy, and interpretation of visual elements in texts. Applies writing as a process with instruction in intermediate writing skills and technology emphasizing organization, idea development through critical thinking, and editorial improvements through multi-paragraph writing. Introduces basic research and documentation through writing in response to reading. Pre-requisite: Placement by KCTCS Assessment and Placement Policy. Lecture: 4.0 credits (60 contact hours).
Components: Lecture Attributes: Technical
KHP 104(1) Course ID:002304
Beginning Swimming
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours)
Components: Laboratory
Attributes: Other

KHP 106(1) Course ID:002306
Beginning Bowling
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours)
Components: Laboratory
Attributes: Other

KHP 107(1) Course ID:002307
Fitness
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours)
Components: Laboratory
Attributes: Other

KHP 108(1) Course ID:002309
Dancing
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours)
Components: Laboratory
Attributes: Other

KHP 115(1) Course ID:002315
Martial Arts
Provides students with beginning instruction and experience in self-defense, basic exercise, and disciplines associated with martial arts. Lab: 1 credit (30 contact hours)
Components: Laboratory
Attributes: Other

KHP 116(1) Course ID:002316
Intermediate Martial Arts
Provides students with intermediate instruction and experience in basic exercise and disciplines associated with martial arts. Pre-requisite: KHP 115. Lab: 1 credit (30 contact hours)
Components: Laboratory
Attributes: Other

KHP 121(1) Course ID:002321
Aerobics
Includes beginning conditioning activities and/or vigorous nonstop rhythmic movement patterns designed to improve or maintain cardiovascular endurance for students at all levels of fitness. Lab: 1 credit (30 contact hours)
Components: Laboratory
Attributes: Other

KHP 122(1) Course ID:002322
Low-Impact Aerobics
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Lab: 1 credit (15 contact hours)
Components: Laboratory
Attributes: Other

KHP 123(1) Course ID:002323
Basketball
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Laboratory: 1 credit (15 contact hours)
Components: Laboratory
Attributes: Other

JUS 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

JUS 102(4) Course ID:003970
Beginning Japanese II
A course in second semester Japanese language. Pre-requisite: JPN 101 or equivalent. Lecture: 4 credits (60 contact hours)
Components: Lecture
Attributes: Foreign Language, Cultural Studies

JPN 201(3) Course ID:003994
Intermediate Japanese I
Focuses on developing listening, speaking, reading and writing skills in early intermediate level of Japanese. Pre-requisite: JPN 102/RAE 121 or equivalent. Lecture: 3 credits (45 contact hours)
Components: Lecture
Attributes: Other

JPN 202(3) Course ID:004208
Intermediate Japanese II
Focuses on developing listening, speaking, reading and writing skills in upper intermediate level of Japanese. Pre-requisite: JPN 201. Lecture: 3 credits (45 contact hours)
Components: Lecture
Attributes: Other

JUS 103(3) Course ID:017113
Introduction to Criminal Justice
This course provides an overview of the criminal justice system; organization and operation of police, courts, and corrections; race, ethnicity, gender, and criminal justice decision-making, current trends and future prospects. Lecture: 3 credit hours (45 contact hours)
Components: Lecture
Attributes: SB - Social Behavior Science, University Course (Northern Kentucky University)

JUS 231(3) Course ID:017112
Race, Gender, and Crime
Political formulation of race and gender; race and gender issues related to criminality, victimization, prosecution; adjudication, sanctions, and employment within the legal system; antecedents of contemporary practice; prospects for change. Lecture: 3 credit hours (45 contact hours)
Components: Lecture
Attributes: AH - Arts and Humanities, University Course (Northern Kentucky University)
KHP 139(1) Course ID:003856
Lifetime Sports
Instruction in a variety of motor skill activities. Courses are designed for students at a beginner level. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Laboratory: 1 credit (15 contact hours).
Components: Laboratory
Attributes: Technical
KHP 140(1) Course ID:002341
Advanced Weight Training
Instruction in a variety of motor skills activities. Courses are for students who already possess intermediate skills in the activity. Instructors will assess skill at start of course. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Assignment of specific title will occur internally in the department. Pre-requisite: Completion of comparable service course or demonstrated competency. Laboratory: 3.0 credit hours.
Components: Laboratory
Attributes: Other
KHP 142(1) Course ID:002342
Advanced Aerobics
Instruction in a variety of motor skills activities. Courses are for students who already possess intermediate skills in the activity. Instructors will assess skill at start of course. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Assignment of specific title will occur internally in the department. Pre-requisite: Completion of comparable service course or demonstrated competency. Laboratory: 3.0 credit hours.
Components: Laboratory
Attributes: Other
KHP 143(1) Course ID:002343
Intramurals
Instruction in a variety of motor skills activities. Courses are for students who already possess intermediate skills in the activity. Instructors will assess skill at start of course. Up to six hours credit may be earned in service courses; however, the same activity may not be repeated for credit. Assignment of specific title will occur internally in the department. Pre-requisite: Completion of comparable service course or demonstrated competency. Laboratory: 3.0 credit hours.
Components: Laboratory
Attributes: Other
KHP 145(3) Course ID:003870
Concepts of Health and Fitness
Current concepts of health and fitness covering such topics as the benefits of physical fitness, principles of fitness training, prevention of cardiovascular 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 to take responsibility for their health and well-being. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
KHP 160(3) Course ID:006817
Personal Nutrition and Fitness
Introduces the importance of daily diet and nutrition. Addresses the role of the personal trainer in helping clients to recognize and decrease risks for chronic diseases. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
KHP 190(2) Course ID:000029
First Aid and Emergency Care
A study of first aid subject matter and orientation in the various first aid teaching methods. Lectures and demonstrations on first aid measures with skill training. American Red Cross Certificate made available. Lecture: 1.0 credit hour; Laboratory: 2.0 credit hours.
Components: Laboratory, Lecture
Attributes: Other
KHP 225(3) Course ID:006818
Exercise Techniques and Physical Training
Focuses on the core components of personal training. Provides information and resources necessary to pass personal fitness trainer certification Pre-requisite: BIO 135 or MSG 100 (or consent of instructor). Co-requisite: KHP 235. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other
KHP 230(3) Course ID:000379
Human Health and Wellness
The study of health promotion, wellness, and disease prevention concepts as applied to individual, familial, and community health. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other
KHP 235(2) Course ID:006820
Personal Trainer Practicum
Students will apply personal training principles and techniques and demonstrate skills with clients in various settings under instructor and preceptor supervision. Pre-requisite: BIO 135 or MSG 100. Co-requisite: KHP 225. Practicum: 2.0 credits (60 contact hours).
Components: Practicum
Attributes: Other
KHP 240(3) Course ID:002226
Nutrition and Physical Fitness
Focuses on the inter-relationship between nutrition and physical fitness. Provides the student with the information necessary to formulate an individualized plan for achievement and maintenance of adequate nutrition and physical fitness while addressing weight control. Lecture: 3 credits (45 contact hours).
Components: Laboratory, Lecture
Attributes: Other
KMA Kentucky Medication Aide
KMA 100(5) Course ID:001629
Kentucky Medication Aide
Prepares a Kentucky Medicaid Nurse Aide to administer specific medications in a long term care facility as delegated and supervised by a licensed nurse. Pre-requisite: (MMNA 100 or NAA 100 or NAA 125) and six months of work experience as a Kentucky Medicaid Nurse Aide) or Consent. Lecture/Lab: 5.0 credits (105 contact hours).
Components: Lecture
Attributes: Technical
LAS Latin America
LAS 201(3) Course ID:015525
Introduction to Latin America
An interdisciplinary approach to the people, culture, and development of the Latin American republics. Attention will be concentrated on significant aspects of the indigenous peoples, geography, economic processes, gender roles, social structures and politics of Latin America, with special attention paid to value structures and value conflicts. Musical, literary and artistic expression in Latin America will also be introduced. Lecture: 3.0 credits (45 contact hours)
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities, University Course (University of Kentucky)
LIN Linguistics
LIN 175(3) Course ID:015967
Information Literacy
A foundational course that introduces students to the cross-disciplinary skills needed to assess information needs, and access and evaluate information sources. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science, University Course (Northern Kentucky University)
LIT Library Information Technology
LIT 115(3) Course ID:004801
Introduction to Reference Services
Introduces library reference sources and services. Includes reference interview techniques, print and digital information sources, bibliographic and full text databases, and digital access and retrieval skills. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
LIT 120(3) Course ID:007416
Readers' Advisory Services
Examines library readers' advisory services. Includes readers' advisory resources, library programming, book discussion groups, collection development, formats for books, ebooks and audio books, online applications, and marketing. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
LIT 124(3) Course ID:004802
Library Administration
Introduces basic principles of library organization and management. Includes the planning process, policies, ethical and legal issues, budgeting, and human resources. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
LIT 132(3) Course ID:004803
Library Technical Services
Provides an overview of library technical services, including acquisitions, processing, cataloging and classification. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
LIT 240(3) Course ID:004805
Literature of Appalachian Kentucky
Introduces the Appalachian literature of Kentucky concentrating on the major contemporary and traditional writers who are distinctly identified with that region. Approaches may include a group of authors, an historical period or aesthetic movement, a genre, a theme, or an aspect of literary theory. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical
LIT 243(3) Course ID:004807
Library Services for Children
Introduces library services for children grades K - 6 and their caregivers. Includes surveys of child development, library programming, children’s literature, collection development, and legal issues. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

LIT 245(3) Course ID:005083
Library Services for Young Adults
Introduces library services for young adults from 6th to 12th grades. Includes programming, collection development, young adult literature, the use of the Internet, and ethical and legal issues. Emphasizes the development and promotion of young adult library services. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

LIT 247(3) Course ID:004808
Library Services for Adults
Introduces library services for adults. Includes adult literature, collection development, programming, circulation services, reference services, and customer relations. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

LIT 248(3) Course ID:004809
Library Services for Preschool Children
Introduces library services for preschool children, age infant to 5 years. Includes library programming development and production, preschool children’s literature, services for parents and for child care professionals, collection development, and legal issues. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

LIT 280(3) Course ID:004810
Genealogy Services in Libraries
Introduces genealogy services in libraries. Surveys genealogy data sources, research methods, collection development, patron referrals, legal and ethical issues, library programming, and marketing. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

LIT 285(3) Course ID:005051
History of Libraries
Examines the development of libraries from ancient times to the present, with emphasis on academic and public libraries in the United States. Includes the interaction of libraries with economic, social, and political trends in the larger society. Lecture: 3 credit (45 contact hours).
Components: Lecture

LOM Logistics and Operations Management

LOM 100(3) Course ID:006827
Introduction to Logistics Management
Provides an overview of general logistics concepts and organizational issues; inventory management and customer service in logistics; and transportation and third party logistics. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

LOM 101(3) Course ID:006828
Transportation Management
Introduces the principles and practices of lean operations in relation to the field of logistics. Provides an overview of the role of transportation and pricing issues; transportation modes and terminals; and transportation risk management and global management issues. Pre-requisite: LOM 100. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

LOM 102(3) Course ID:006829
Supply Chain Management
Introduces practical approach to managing essential resources, people, and deadlines. Discusses lean principles with an emphasis on work cells and Just In Time (JIT) practices. Pre-requisite: LOM 100. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

LOM 102(3) Course ID:006830
Supply Chain Management
Introduces an overview of supply chain management and financial analysis; inventory management skills and techniques; and supply chain design and sustainability solutions. Pre-requisite: LOM 100. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

LOM 180(3) Course ID:004629
Project Management
Introduces an overview of project management and financial analysis; inventory management skills and techniques; and supply chain design and sustainability solutions. Pre-requisite: LOM 100. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

LOM 202(3) Applied Supply Chain Management
Provides an understanding of the importance of individual components (supplies, manufacturers, distributors, and customers) in the operation of a supply chain. Pre-requisite: LOM 102. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

LOM 210(3) Lean for Logistics
Introduces students to the principles and practices of lean operations in relation to the field of logistics. Incorporates a lean simulation activity and examples from lean practitioners in the management of supply chain operations. Discusses core lean principles with an emphasis on work cells and Just In Time (JIT) practices. Pre-requisite or Co-requisite: LOM100 Introduction to Logistics Management. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MA Mathematics

MA 111(3) Course ID:004907
Contemporary Mathematics
An introduction to concepts and applications of mathematics, with examples drawn from such areas as voting methods, apportionment, consumer finance, graph theory, fillings, polyhedra, number theory and game theory. This course is not available for credit to persons who have received credit in any mathematics course of a higher number with the exceptions of MA 112, 123, 162, 201 and 202. This course does not serve as a Pre-requisite for any calculus course. Credit not available on that basis of special examination. Pre-requisite: Two years of high school algebra and a Math ACT score of 19 or above, or MA 108, or math placement test. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

MA 113(4) Course ID:006625
Calculus I
A course in one-variable calculus, including topics from analytic geometry. Derivatives and integrals of elementary functions (including the trigonometric functions) with applications. Lecture, three hours; recitation, two hours per week. Pre-requisites: Math ACT of 27 or above, or math SAT of 620 or above, or a grade of C or better in MA 109 (UK) and MA 112 (UK), or a grade of C or better in MA 110 (UK), or consent of the department. Students who enroll in MA 113 based on their test scores should have completed a year of pre-calculus study in high school that includes the study of the trigonometric functions. Note: Math placement test recommended. Lecture: 3.0 credits (45 contact hours). Discussion: 1.0 credit (30 contact hours).
Components: Discussion, Lecture Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

MA 114(4) Course ID:006626
Calculus II
A continuation of MA 113, primarily stressing techniques of integration. Lecture, 3 hours; recitation, 2 hours per week. Pre-requisites: High school trigonometry or MA 112 (UK), and a grade of C or better in MA 113 (UK), MA 137 or MA 132 (UK). Lecture: 3.0 credits (45 contact hours). Discussion: 1.0 credit (30 contact hours).
Components: Discussion, Lecture Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

MA 162(3) Course ID:006628
Finite Mathematics and Its Applications
Finite mathematics with applications to business, biology, and the social sciences. Linear functions and inequalities, matrix algebra, linear programming, probability. Emphasis on setting up mathematical models from stated problems. Pre-requisites: MA 109 (UK) or equivalent. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: QR - Quantitative Reasoning, University Course (University of Kentucky)

MA 193(1) Course ID:006629
Supplementary Mathematics Workshop I
Lecture offered (only) as an adjunct to certain mathematics lecture courses. Offered only on a pass/fail basis. Co-requisites: Set by instructor. Lab 1.0 credit (30 contact hours).
Components: Laboratory Attributes: University Course (University of Kentucky)

MA 194(1) Course ID:006630
Supplementary Mathematics Workshop II
Lecture offered (only) as an adjunct to certain mathematics lecture courses. Offered only on a pass/fail basis. Co-requisites: Set by instructor. Lab 1.0 credit (30 contact hours).
Components: Laboratory Attributes: University Course (University of Kentucky)
MAI 105(3) Course ID:004342
Introduction to Medical Assisting
Introduces rights, roles, responsibilities and functions of the medical assistant including personal and professional awareness, communication, interpersonal relationships, psychological concepts, ethics and legalities Pre-requisite: Acceptance into the Medical Assisting program or Consent of Medical Assisting Coordinator/Director. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

MAI 120(3) Course ID:004090
Medical Assisting Laboratory Techniques I
Introduces theory and practical application in the physician's office laboratory including anatomy and physiology, specimen collection and transport, processing and testing, blood collection and prevention of disease transmission. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (30 contact hours). Pre-requisite: Acceptance into the Medical Assisting Program or consent of Medical Assisting Coordinator/Director.
Components: Laboratory, Lecture Attributes: Technical
MAT 011(3) Course ID:015623

Transitional Algebra
Provides individualized, accelerated, mastery-level progression through entry-level college mathematics Pre-requisite competencies as defined by KY Council of Postsecondary Education. Note: A passing grade in this course does not necessarily indicate that all prerequisites for all entry-level college mathematics courses have been met. Pre-requisite: KCTCS Placement Exam. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Remedial - Mathematics

MAT 050(1 - 2) Course ID:004565

Developmental Mathematics Workshop
Provides supplemental academic support such as extra class sessions, tutoring, and/or increased monitoring to promote student success. May be associated with any developmental math course offered through KCTCS and may be repeated for each math course. Credit cannot be received by special exam. Co-requisite: Set by instructor. Laboratory: 1-2 credits (30-60 contact hours).

Components: Laboratory
Attributes: Remedial - Mathematics

MAT 055(3) Course ID:004555

Pre-Algebra
Includes operations on integers, decimals and fractions. Introduces exponents, square roots, percents, ratios, proportions, prime factorization, basic geometry, algebraic expressions, basic linear equations, and applications. Pre-requisite: KCTCS placement examination. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Remedial - Mathematics, Course Also Offered in Modules

MAT 055A(1.6) Course ID:007338

Integers, Fractions and Decimals
Covers the properties of whole numbers, prime factorization of whole numbers, rounding of whole numbers, and decimals to an indicated place value. Includes basic operations, order of operations, and absolute value on integers, fractions and decimals. Permits the conversion among fractions, decimals, and percents; evaluation of whole number powers of integers, fractions, and decimals; and the evaluation of square roots of perfect squares of integers, fractions, and decimals. Pre-requisite: KCTCS Placement examination. Lecture: 1.6 credits (24 contact hours).

Components: Lecture
Attributes: Remedial - Mathematics

MAT 055B(0.7) Course ID:007339

Algebraic Expressions
Includes the evaluation of algebraic expressions, simplifying algebraic expressions, solving problems involving ratio and proportion, and solving problems involving percent. Pre-requisite: MAT 055A. Lecture: 0.7 credits (10.5 contact hours).

Components: Lecture
Attributes: Remedial - Mathematics

MAT 055C(0.7) Course ID:007340

Beginning Linear Equations
Uses both the addition and multiplication properties to solve a linear equation. Includes how to determine the length of the unknown side of a right triangle using the Pythagorean Theorem and to determine the perimeter, circumference, area, surface area, and volume of basic plane figures and solids. Covers how to solve applied problems using these competencies with real world applications. Pre-requisite: MAT 055B. Lecture: 0.7 credits (10.5 contact hours).

Components: Lecture
Attributes: Remedial - Mathematics

MAT 061(4) Course ID:017297

Foundations of College Algebra
Prepares students to take College Algebra with College Algebra Workshop. Introduces operations on integers, decimals, and fractions; ratios, proportions, and percents; simplifying radicals and algebraic expressions; solving linear and quadratic equations; linear inequalities; solving formulas; factoring; slope and graphing lines. Pre-requisite: KCTCS Placement Policy. Lecture: 4 credits (60 contact hours).

Components: Lecture
Attributes: Remedial - Mathematics

MAT 062(3) Course ID:007375

Intro to Workplace Mathematics
Prepares students for Business Mathematics, Applied Mathematics, and Technical Mathematics. Includes properties of algebra, using formulas, solving linear equations, percentages, ratios, proportions, plotting points, graphing lines, exponents, and measurement. Encourages applications of algebra and effective use of technology. Pre-requisite: MAT 055 or equivalent as determined by KCTCS placement examination. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Remedial - Mathematics

MAT 065(3) Course ID:004566

Basic Algebra
Includes linear equations and inequalities, integer exponents, polynomials, factoring, equations of lines and their graphs, systems of linear equations, and applications. Pre-requisite: MAT 055 or KCTCS placement examination. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Remedial - Mathematics, Course Also Offered in Modules

MAT 065A(0.8) Course ID:007341

Linear Equations and Inequalities
Includes solving linear equations in one variable, literal equations for a specified variable, and linear inequalities. Covers writing sets using interval and set-builder notations and translating verbal statements into algebraic expressions. Pre-requisite: MAT 055 or KCTCS Placement examination. Lecture: 0.8 credits (12 contact hours).

Components: Lecture
Attributes: Remedial - Mathematics

MAT 065B(0.5) Course ID:007342

Polynomials
Includes the application of rules of integer exponents; addition, subtraction, and multiplication of polynomials of one or more variables; and division of polynomials of one variable. Pre-requisite: MAT 065A. Lecture: 0.5 credits (7.5 contact hours).

Components: Lecture
Attributes: Remedial - Mathematics

MAT 065C(0.8) Course ID:007343

Lines
Includes plotting points in the rectangular coordinate plane; graphing a linear equation in two variables using multiple methods; determining the slope of a line given the two points, a graph, or an equation; determining the intercepts of a line; and determining if two lines are parallel, perpendicular, or neither based on slope. Pre-requisite: MAT 065B. Lecture: 0.8 credits (12 contact hours).

Components: Lecture
Attributes: Remedial - Mathematics

MAT 065D(0.5) Course ID:007344

Factoring
Includes the factoring of polynomials by finding the greatest common factor, by grouping, and by using special products. Covers factoring general trinomials and solving polynomial equations by factoring. Pre-requisite: MAT 065C. Lecture: 0.5 credits (7.5 contact hours).

Components: Laboratory
Attributes: Remedial - Mathematics

MAT 065E(0.4) Course ID:007345

Systems of Linear Equations
Includes solving systems of linear equations in two variables using multiple methods and solving applied problems using these competencies with real world applications. Pre-requisite: MAT 065D. Lecture: 0.4 credits (6.0 contact hours).

Components: Lecture
Attributes: Remedial - Mathematics

MAT 071(3) Course ID:017181

Foundations of Precalculus
Includes linear and absolute value equations and inequalities, linear equations in two variables, polynomials and factoring, exponential and radical expressions, quadratic equations, and systems of two linear equations. Pre-requisite: KCTCS placement examination. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Remedial - Mathematics

MAT 075(4) Course ID:015659

Mathematical Literacy
Develops the mathematical thinking skills and understanding needed for non-math and non-science majors, in a one-semester course integrating numeracy, proportional reasoning, algebraic reasoning, and functions. Provides an alternate path to college-level math courses other than college algebra. Pre-requisite: MAT 055 or equivalent as determined by KCTCS placement examination. Lecture: 4.0 credits (60 contact hours).

Components: Lecture
Attributes: Remedial - Mathematics

MAT 085(3) Course ID:007045

Intermediate Algebra
Includes rational expressions, radical expressions, rational exponents, graphing parabolas, inequalities, equations of lines, functions and applications, with emphasis on solving quadratic, rational, and radical equations. Pre-requisite: MAT 065 or MAT 075 or KCTCS placement examination. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Remedial - Mathematics

MAT 096(1 - 2) Course ID:015815

Supplemental Mathematics
Provides academic support for students scoring below the system-wide standard into a quantitative-reasoning course. Serves as supplemental co-requisite for students with borderline test scores, as defined in the KCTCS course placement policy. If students withdraw from MAT 096, they must also withdraw from the co-requisite course. Co-requisite: A quantitative-reasoning course requiring supplemental instruction. Lecture: 1.0 - 2.0 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). Pre-requisite: Concurrent enrollment in MAT 150. NOTE: Effective Fall 2010 ACT 19.

Components: Lecture
Attributes: Other, Course Also Offered in Modules, Supplemental Mathematics

MAT 105(3) Course ID:004557

Business Mathematics
Covers basic mathematical concepts as applied to finance. Includes percentages, simple and compound interest, annuities, sinking funds, depreciation, and consumer debt, including installment buying, credit cards, and mortgages. Pre-requisite: 1. MAT 061, MAT 062, MAT 065, MAT 071, MAT 075, or MAT 085, OR 2. Completion of MAT 055 and concurrent enrollment in MAT 105S, OR 3. KCTCS placement policy. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Quantitative Reasoning AAS

MAT 105S(1 - 2) Course ID:017289

Corequisite Remediation for Business Mathematics

Components: Lecture
Attributes: Other
MAT 116(3) Course ID:004559
Technical Mathematics
Includes some mathematical concepts from algebra, geometry, and trigonometry and applications relevant to these topics. Includes unit conversions, variation, measurement of geometric figures, vectors, and solving right and oblique triangles using trigonometry. Emphasizes applications in the various technologies. Pre-requisite: 1. MAT 061, MAT 062, MAT 065, MAT 071, OR MAT 085, OR 2. Completion of MAT 055 and concurrent enrollment in MAT 116S, OR 3. KCTCS placement policy. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Quantitative Reasoning AAS, Course Also Offered in Modules

MAT 110S(1 - 2) Course ID:017291
Corequisite Remediation for Applied Mathematics
Components: Lecture Attributes: Other

MAT 110(3) Course ID:004558
Applied Mathematics
Includes the concepts of ratio and proportion, units and conversions, linear equations in two variables, inequalities, graphing and writing equation of a line, percents, interest, descriptive statistics, and logical symbolism. Emphasizes applications in the various technologies. Pre-requisite: 1. MAT 061, MAT 062, MAT 065, MAT 071, OR MAT 085, OR 2. Completion of MAT 055 and concurrent enrollment in MAT 110S, OR 3. KCTCS placement policy. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Quantitative Reasoning AAS, Course Also Offered in Modules

MAT 141S(1) Course ID:017209
Corequisite Remediation for Liberal Arts Mathematics
Provides supplementary instruction for students who do not meet college readiness standards for MAT 141. Covers content necessary for success in MAT 141. Co-requisite: MAT 141. Lecture: 1 credit hour (15 contact hours).
Components: Lecture Attributes: Other

MAT 146(3) Course ID:002375
Contemporary College Mathematics
Serves as a course in quantitative reasoning and problem solving intended for non-science majors. Includes voting methods, finance, population growth, and at least two additional topics chosen from: apportionment, geometry, logic, probability and statistics, graph theory, number theory, game theory, and set theory. Pre-requisite: 1. Math ACT score of 19 or above, OR 2. Successful completion of MAT 085, MAT 075, MAT 126, or equivalent, OR 3. KCTCS placement policy including concurrent enrollment in MAT 146S as appropriate. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: QR - Quantitative Reasoning, Course Also Offered in Modules

MAT 146S(1 - 2) Course ID:017295
Corequisite Remediation for Contemporary College Mathematics
Provides supplementary instruction for students who do not meet college readiness standards for MAT 146. Covers content necessary for success in MAT 146. Co-requisite: MAT 146. Lecture: 1-2 credit hours (15-30 contact hours).
Components: Lecture Attributes: Other

MAT 150(3) Course ID:002376
College Algebra
Includes selected topics in algebra and analytic geometry. Develops manipulative skills and concepts required for further study in mathematics. Includes linear, quadratic, polynomial, rational, exponential, logarithmic and piecewise functions; systems of equations; and an introduction to analytic geometry. (Students may not receive credit for both MAT 150 and any other College Algebra or Pre-calculus course. Credit not available on the basis of special exam.) Pre-requisite: 1. Math ACT score of 22 or above; 2. Math ACT score of 19-21 with concurrent MAT 150, 3. Successful completion of MAT 061 with concurrent MAT 100 workshop; 4. Successful completion of MAT 071, MAT 085, MAT 126, or equivalent; or 5. KCTCS placement exam recommendation. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: QR - Quantitative Reasoning, Course Also Offered in Modules

MAT 151S(3) Course ID:017087
Introduction to Applied Statistics
Serves as an entry-level introduction to applied statistics useful for a variety of fields. Covers statistical terminology and the appropriate use of software for the calculation of descriptive statistics, basic probability, correlation and linear regression. Emphasizes understanding the uses and misuse of statistics in the real world. (Same as STA 151.) (Students may not receive credit for both this course and any of the following: STA 151, STA 200, STA 210, STA 215.) Pre-requisite: College Readiness in Mathematics. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: QR - Quantitative Reasoning

MAT 151S(1) Course ID:017074
Corequisite Remediation for Introduction to Applied Statistics
Provides supplementary instruction for students who do not meet college readiness standards for STA 151 or MAT 151. Covers content necessary for success in STA 151 or MAT 151 as needed. Lecture: 1 credit (15 contact hours).
Components: Lecture Attributes: Other, Suplemental Mathematics

MAT 154(2) Course ID:000552
Trigonometry
Includes trigonometric functions, identities, multiple analytic formulas, laws of sines and cosines, graphs of trigonometric functions, and inverse trigonometric functions. Pre-requisite: Completion of a college intermediate algebra course or two years of high school algebra. Lecture: 2.0 credits (30 contact hours).
Components: Lecture Course Equivalents: MAT 155 Attributes: QR - Quantitative Reasoning

MAT 155(3) Course ID:004563
Trigonometry
Includes the trigonometric functions, identities, multiple analytic formulas, laws of sines and cosines, graphs of trigonometric functions in rectangular and polar coordinates, and solving trigonometric equations. Emphasizes applications in each topic. (Students may not receive credit for both MAT155 and any other trigonometry or pre-calculus course.) Lecture: 3 credits (45 contact hours). Pre-requisite: 1. Math ACT score of 22 or above, 2. Math ACT score of 19-21 with concurrent MAT 150, 3. Successful completion of Intermediate Algebra, MAT 126, or equivalent, or 4. Placement exam recommendation.
Components: Lecture Course Equivalents: MAT 154 Attributes: QR - Quantitative Reasoning

MAT 159 Course ID:000543
Analytic Geometry and Trigonometry (4)
Includes trigonometric functions, trigonometric identities, graphs of trigonometric functions, and inverse trigonometric functions, polynomial and rational functions, the algebra of functions, exponential and logarithmic functions, and systems of equations. The course is not available for credit by special examination. The course is not available for credit to persons who have received credit for college algebra or trigonometry course. Pre-requisite: Two years of high school algebra and a Math ACT score of 19 or above, or MA 108R (UK) or math placement test. Lecture: 4.0 credits (60 contact hours).
Components: Lecture Attributes: QR - Quantitative Reasoning

MAT 160(5) Course ID:005312
Precalculus
Prepares students to enroll in a calculus sequence. Includes trigonometric functions, exponentials and logarithms, graphs, polar coordinates, conic sections, and systems of nonlinear equations. Students may not receive credit for both MAT 160 and either College Algebra or Trigonometry. Credit is not available by special examination. Lecture: 5 credits (75 contact hours). Pre-requisite: 1. Math ACT score of 23 or above, 2. Placement exam recommendation, or 3. Consent of instructor.
Components: Lecture Attributes: QR - Quantitative Reasoning

MAT 161(3) Course ID:017175
Statistics and Algebra
Serves as the entry-level mathematics class for students in business and related fields. Provides a survey of algebra and statistics necessary to prepare students for Brief Calculus and Applied Statistics. Develops fluency in the manipulation of polynomial, rational, radical, exponential, and logarithmic functions in order to solve equations, inequalities, and application problems. Familiarizes students with the graphs of the aforementioned functions. Includes nonlinear systems of equations. Covers statistical terminology and the appropriate use of software for the calculation of descriptive statistics, basic probability, correlation and linear regression. (Students may not receive credit for both this course and any of the following: STA 151, MAT 151, MAT 150.) Pre-requisite: ACT Math of 22 or MAT 071 or MAT 085 or concurrent enrollment in MAT 161S. Lecture: 3 credit hours (45 contact hours).
Components: Lecture Attributes: QR - Quantitative Reasoning
MAT 161S(2) Course ID:017123
Corequisite remediation for Statistics and Algebra
Provides supplementary instruction for students who do not meet college readiness standards for MAT 161. Covers topics necessary for success in MAT 161 as needed. Co-requisite: MAT 161. Lecture: 2 credit hours (30 contact hours).
Components: Lecture
Attributes: Other

MAT 165(3) Course ID:005313
Finite Mathematics and its Applications
Examines finite mathematics with applications to business, biology and the social sciences including linear functions and inequalities, matrix algebra, linear programming, probability with emphasis on setting up mathematical models from stated problems. Lecture: 3 credits (45 contact hours). Pre-requisite: MAT 150 or equivalent.
Components: Lecture
Attributes: QR - Quantitative Reasoning

MAT 170(3) Course ID:005314
Brief Calculus with Applications
Provides an introduction to differential and integral calculus with applications in biological sciences, social sciences, physical sciences, or business with an analysis of algebraic, exponential, and logarithmic functions. (Students may not receive credit for both MAT 170 and MAT 175.) Lecture: 3 credits (45 contact hours). Pre-requisite: Successful completion of MAT 150 or Math ACT 27 or above.
Components: Lecture
Attributes: QR - Quantitative Reasoning, Course Also Offered in Modules

MAT 171(5) Course ID:017123
Precalculus
Serves as the entry-level mathematics class for students in STEM fields. Prepares students for success in Calculus I. Develops fluency in the manipulation of polynomial, rational, radical, exponential, logarithmic, and trigonometric functions in order to solve equations, inequalities, and application problems. Familiarizes students with the graphs of the aforementioned functions. Includes linear and nonlinear systems of equations. Students may not receive credit for both MAT 171 and any other College Algebra, Trigonometry, or Precalculus course. Credit not available on the basis of standard examination. Pre-requisite: ACT Mathematics score of 23 or equivalent, or MAT 071 or MAT 085. Lecture: 5 credits (75 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning, Other

MAT 174(4) Course ID:000553
Calculus I
Includes topics from analytic geometry, derivatives and integrals of elementary functions, trigonometric functions, exponential functions, and logarithmic functions, and their applications. A course in one variable calculus. Pre-requisite: MATH ACT score of 27 or above, or MAT 150 and MAT 154, or MAT 159, or consent of instructor. Lecture/Lab: 4.0 credits (75 contact hours).
Components: Lecture
Course Equivalents: MAT 175
Attributes: QR - Quantitative Reasoning

MAT 175(5) Course ID:005315
Calculus I
Examines one-variable calculus including limits, differentiation and integration of algebraic, trigonometric, exponential, logarithmic, hyperbolic, and inverse trigonometric functions with applications. Lecture: 5 credits (75 contact hours). Pre-requisite: 1. College Algebra and Trigonometry, or equivalent, with grades of "C" or higher, 2. Math ACT 27 or above, 3. Placement examination recommended, or 4. Consent of instructor.
Components: Lecture
Course Equivalents: MAT 174
Attributes: QR - Quantitative Reasoning

MAT 184(4) Course ID:000557
Calculus II
Stresses techniques of integration and infinite series. Includes transcendental functions and polar coordinates. A continuation of MAT 174. Pre-requisite: MAT 174 with a grade of C or above. Lecture/Lab: 4.0 credits (75 contact hours).
Components: Lecture
Course Equivalents: MAT 185
Attributes: QR - Quantitative Reasoning

MAT 185(5) Course ID:005316
Calculus II
Includes applications of integration, advanced integration techniques, sequences and infinite series, and parametric and polar equations. Pre-requisite: Calculus I, or equivalent, with grade of "C" or higher, or consent of the instructor. Lecture: 5.0 credits (75 contact hours).
Components: Lecture
Course Equivalents: MAT 184
Attributes: QR - Quantitative Reasoning

MAT 195(1 - 2) Course ID:015479
Mathematics Workshop
Promotes student success in mathematics by providing supplemental instruction in the form of extra class sessions. Co-requisite: Mathematics course numbered higher than MAT100. Lab: 1.0-2.0 credits (30-60 contact hours).
Components: Lecture
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. 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 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: Integrated Laboratory, Integrated Lecture
Attributes: Other

MAT 214(3) Course ID:006895
Calculus IV
Focuses primarily on first and second order equations. Includes matrix solutions of systems of linear differential equations, both homogeneous and nonhomogeneous. Matrices also includes series solutions, Bessel equations, Laplace transforms, and operator methods. Primarily for STEM majors. Pre-requisite: Successful completion of Calculus III with Linear Algebra. Lecture: 3.0 credits (75 contact hours).
Components: Lecture

MAT 261(3) Course ID:003966
Introduction to Number Theory
Investigates topics from classical number theory, including discussions of mathematical induction, prime numbers, division algorithms, congruences, and quadratic reciprocity. Pre-requisite: Consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning

MAT 275(4) Course ID:005318
Calculus III
Examines multivariate calculus including parametric equations; rectangular, cylindrical, and spherical coordinate systems; vectors and vector-valued functions; limits and derivatives of functions of several variables; multiple integration; and line and surface integrals. Pre-requisite: MAT185 or equivalent, or Consent of instructor. Lecture: 4 credits (60 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning

MAT 285(3) Course ID:005319
Differential Equations
Examines ordinary differential equations emphasizing first and second order equations and applications. Includes series solutions of second order equations and Laplace transform methods. Pre-requisite: MAT275 or Consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: QR - Quantitative Reasoning

MAT 0851(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 KYCTCS placement examination. Lecture: 0.3 credits (45 contact hours)
Components: Lecture
Attributes: Remedial - Mathematics

MAT 0852(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 0853(0.4) Course ID:007331
Rational Expressions
Examines 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 0854(0.8) Course ID:007332
Radicals
Covers the conversion between radical and rational exponent form, simplification of radicals, performance of operations with radicals, and the solution of equations involving radicals. Pre-requisite: MAT 0853. Lecture: 0.6 credits (9.0 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 0855(0.3) Course ID:007333
Quadratics
Includes solving quadratic equations with complex solutions using completing the square and the quadratic formula. Covers graphing parabolas by finding the vertex, finding the axis of symmetry, and plotting points. Pre-requisite: MAT 0854. Lecture: 0.3 credits (4.5 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics

MAT 0856(0.8) Course ID:007334
Functions
Includes the evaluation of a function using function notation, determination of whether a given correspondence or graph represents a function, determination of the domain of a function, [and] identification of the range of a function. Includes modeling and solving applications based on linear, quadratic, and exponential functions. Pre-requisite: MAT 0855. Lecture: 0.8 credits (12 contact hours).
Components: Lecture
Attributes: Remedial - Mathematics
MAT 1101 (0.7)  
Course ID: 006142  
Logic and Reasoning  
Investigates concepts of logical symbolism, valid and invalid arguments. Uses applications throughout. Pre-requisite: MAT 065 or equivalent as determined by KCTCS placement examination. Lecture: 0.7 credit (10.5 contact hours).

Components: Lecture

MAT 1102 (0.8)  
Course ID: 006143  
Statistics  
Develops concepts of descriptive statistics. Emphasizes applications throughout. Pre-requisite: MAT 065 or equivalent as determined by KCTCS placement examination. Lecture: 0.8 credit (12 contact hours).

Components: Lecture

MAT 1103 (0.7)  
Course ID: 006144  
Algebra and Graphing  
Develops concepts of ratio and proportion, linear equations in two variables, inequalities, graphing and writing the equation of a line. Emphasizes applications throughout. Pre-requisite: MAT 065 or equivalent as determined by KCTCS placement examination. Lecture: 0.7 credit (10.5 contact hours).

Components: Lecture

MAT 1104 (0.8)  
Course ID: 006145  
Consumer Math, Geometry and Measurement  
Develops concepts of ratio and proportion, measurement, units and conversions, percents and interest. Emphasizes applications throughout. Pre-requisite: MAT 065 or equivalent as determined by KCTCS placement examination. Lecture: 0.8 credit (12 contact hours).

Components: Lecture

MAT 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 1701 (0.6)  
Course ID: 016157  
Limits  
Approximates limits graphically and numerically; evaluates limits analytically; lists the conditions for the continuity of a function at a point; determine if a function is continuous or discontinuous at a point; determine the intervals of continuity of a function; and evaluate infinite limits and limits at infinity. Pre-requisite: Successful completion of MAT 150 or Math ACT 27 or above. Lecture: 0.6 credits (9 contact hours).

Components: Lecture

MAT 1702 (0.8)  
Course ID: 016158  
Differentiation  
Defines the derivative of a function; evaluate the derivative of a function using the definition; evaluate the derivative of a function using differentiation rules for algebraic functions and the product, quotient, and chain rules; use the derivative of a function to find the equation of a tangent line; perform implicit differentiation; define the differential; and use differentials to approximate function values. Pre-requisite: MAT 1701. Lecture: 0.8 credits (12 contact hours).

Components: Lecture

MAT 1703 (0.6)  
Course ID: 016159  
Differentiation Applications  
Determine critical points; determine intervals on which a function is increasing or decreasing; identify relative extrema; identify inflection points and intervals on which a function is concave up or concave down. Solve application problems involving relative rates and optimization for biological, social, or physical sciences and business. Determine whether a function is differentiable at a point. Find the derivative of functions including polynomial, rational, root, exponential, and logarithmic functions. Pre-requisites: MAT 1702. Lecture: 0.6 credits (9 contact hours).

Components: Lecture

MAT 1704 (0.5)  
Course ID: 016160  
Integration  
Discuss the fundamental theorem of calculus. Find the average value of a function. Find indefinite and definite integrals of a function using integration rules for algebraic functions. Find definite and indefinite integrals using substitution. Pre-requisite: MAT 1703. Lecture: 0.5 credits (7.5 contact hours).

Components: Lecture

MAT 1705 (0.5)  
Course ID: 016161  
Applications of Integration  
Use definite integrals of find the area under a curve and between two curves. Find the integral of functions using polynomial, rational, root, exponential, and logarithmic functions. Solve application problems using integrals for biological, social, and physical sciences or business. Pre-requisite: MAT 1704. Lecture: 0.5 credits (7.5 contact hours).

Components: Lecture

MBS Medical Billing Specialist

MBS 110(6)  
Course ID: 001676  
Medical Insurance and Claims Processing  
Provides in-depth knowledge of the various insurance programs, including rules, regulations and guidelines, and follow-up for Medicare, Medicaid, Commercial Insurance, and managed care (HMO), and complete insurance forms manually for reimbursement. Lecture: 6 credits (90 contact hours). Pre-requisite: (AHS 109 or BIO 130 or 135 or (BIO 137 and BIO 139) and (AHS 115 or CLA 131 or OST 103) and Computer Literacy and MBS 100) with a grade of C or better) or consent. Co-requisite: MBS 120.

Components: Lecture  
Attributes: Technical

MBS 120(8)  
Course ID: 001678  
Coding for Reimbursement  
Prepares the student to code for optimum reimbursement using the ICD, CPT, and HCPCS codes for patient diagnoses and procedures. Pre-requisite: (AHS 109 or BIO 130 or 135 or (BIO 137 and BIO 139) and (AHS 115 or CLA 131 or OST 103) and Computer Literacy and MBS 100) with a grade of C or better) or consent. Co-requisite: MBS 110.

Components: Lecture  
Attributes: Technical

ME Mechanical Engineering

ME 205(3)  
Course ID: 004291  
Introduction to Computer Graphics  
Combines freehand sketching techniques, both orthographic and pictorial, and the use of a solid modeling program to describe and define mechanical objects using current industrial standards. An introduction to basic dimensioning and tolerancing techniques is included. Lecture: 2.0 credit hours, Laboratory: 4.0 credit hours per week.

Components: Laboratory, Lecture  
Attributes: Technical

ME 220(3)  
Course ID: 000837  
Engineering Thermodynamics I  
Fundamental principles of thermodynamics. Pre-requisite: PHY 231. Pre-requisite or concurrent MA 214. Lecture: 3 credits (45 contact hours).

Components: Lecture  
Attributes: Technical

MFG Manufacturing

MFG 135(6)  
Course ID: 006671  
Fundamentals of Mechatronics  
Introduces the student to the basics of Mechatronic systems and the operation of electrical, mechanical, pneumatic/hydraulic, and Programmable Logic Control components in an advanced manufacturing system. Combines basic operational and analytical skills with critical thinking and applied troubleshooting. Teaches the students to troubleshoot a multitude of problems involved in typical electrical, mechanical, and hydraulic/ pneumatic systems. (Credit may not be earned for this course if the student has earned credit for MFG 125 or MFG 130.) Pre-requisite: ENGT110 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

MFG 175(2)  
Course ID: 006672  
Lean Operations  
Introduces students to the principles and practices of lean operations. Employs a lean simulation and examples from Toyota and other lean practitioners to introduce students to lean practices. Discusses Total Productive Maintenance. Lecture/Lab: 2.0 credit hours (30 contact hours).

Components: Lecture  
Attributes: Course Also Offered in Modules, Technical

MFG 265(4)  
Course ID: 000713  
Robotics and Industrial Automation  
A study of principles and techniques used in automated industrial systems are studied. Emphasis is placed on programming, applications, and interfacing of automated machinery to manufacturing workcells. Lecture: 3.0 credit hours; Laboratory: 2.0 credit hours. Pre-requisite: ET 256 or consent of instructor.

Components: Laboratory, Lecture  
Attributes: Technical

MFG 1751(0.5)  
Course ID: 006673  
Lean Simulation  
Uses a lean simulation to introduce students to lean practices. Lecture: 0.5 credits (7.5 contact hours).

Components: Lecture

MFG 1752(1)  
Course ID: 006674  
Lean Principles  
Introduces students to lean principles and concepts using examples from Toyota and other lean practitioners. Lecture: 1.0 credit hour (15 contact hours).

Components: Lecture

MFG 1753(0.5)  
Course ID: 006675  
Total Productive Maintenance  
Introduces Total Productive Maintenance concepts and practices using industry examples. Lecture: 0.5 credits (7.5 contact hours).

Components: Lecture
MGT Management

MGT 101(3) Course ID:004892
Quality Management Principles
Students are introduced to fundamental concepts, principles, and practices used to improve quality in organizations. The need for organizational change is reviewed and paradigms of quality are introduced. An overview of areas of change, methods of quality planning and methods for implementing quality policies are provided. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

MGT 120(3) Course ID:004897
Personal Finance
Information needed to make intelligent choices and take effective action in the management of personal resources is provided. Topics include financial planning, buying, borrowing, saving, budgeting, investing, insurance, and taxes. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

MGT 160(3) Course ID:004899
Introduction to Business
Business careers, terminology, and the interrelationships and complexities of business are introduced and examined in this survey course. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

MGT 200(3) Course ID:004900
Small Business Management
Students are introduced to the many facets of establishing, operating and/or owning a small business. Topics include legal forms of business organization, finance, accounting, insurance, governmental regulations and assistance, economics, marketing, and management principles. Pre-requisite: BAS 160 or MGT 160 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Course Equivalents: BAS 200 Attributes: Technical

MGT 210(3) Course ID:017114
Managing Quality
Introduces students to fundamental concepts, principles and practices used to manage and improve quality in organizations. Explores basic quality concepts including continuous improvement, customer focus, value-added concept, quality tools, statistical techniques, quality awards, quality standards, scientific management using data, designing products and services for quality, and the historic influences of leaders in quality management. Pre-requisite: BAS 160. Lecture: 3 credit hours (45 contact hours).
Components: Lecture Attributes: Technical

MGT 240(3) Course ID:005460
Business Ethics and Self Management
Emphasizes the need for managers to be self-directed to make ethical decisions. Explores moral principles, community standards and the ethics of decision making at personal and professional levels. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

MGT 256(3) Course ID:004901
Operations Management
Concepts and methods for economical planning and control of activities required for transforming a set of inputs into specified goods or services are introduced. Emphasis is given to forecasting, decision analysis, cost analysis, design of production systems, production/marketing relationships, operations planning and control, and the importance of global competitiveness. Pre-requisite: MGT 283 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

MGT 258(3) Course ID:006642
Project Management
Provides tools used in project management to accomplish the goals of society's varied organizations. Provides insight into human behavior, knowledge of organizational issues, and skill with quantitative methods to allow successful project management. Pre-requisite: MGT 283. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MGT 261(3) Course ID:004913
Introduction to Business Law
The student is introduced to the state and federal court systems, tort and criminal law, law of contracts, partnerships, sale of goods, government regulations, bailments and negotiable instruments. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

MGT 274(3) Course ID:004914
Human Resource Management
The student is introduced to the basic methods of recruiting, selecting, training, compensating, and maintaining a productive workforce. Concepts of effective employee relations including collective bargaining, contract administration, and safety and health programs are introduced. Techniques for systematic human resource planning and development of policies consistent with government regulations are emphasized. Pre-requisite: MGT 283 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

MGT 283(3) Course ID:004916
Principles of Management
Provides students with an overview of management beginning with the key functions of planning and decision making, organizing, leading and controlling. Explores the many aspects of management including human behavior, motivation, leadership, change and teams. Pre-requisite: BAS 160 or MGT 160 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

MGT 284(3) Course ID:004917
Applied Management Skills
A capstone course in which management theories and techniques are applied with emphasis on the action-skills that managers need for success. Course topics include delegating, motivating employees, team-building, conflict management, coaching and managing change. Pre-requisite: BAS 283/MGT 283 or prior supervisory experience. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

MGT 287(3) Course ID:005217
Self-Management
The need for managers to be self-directed before they can manage successfully the work of others is emphasized. Contemporary approaches to developing the behavioral skills needed to improve personal effectiveness are explored. Topics include personal planning and goal setting, time management, stress management, interpersonal and human relations skills. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

MGT 292(3) Course ID:016855
Strategic Management
Introduces students to strategic planning and management concepts and processes in this capstone course. Provides in-depth examination of strategic planning and implementation. Provides a framework for internal and external organizational analysis. Applies decision-making, problem-solving, accounting and financial analysis in reviewing contemporary businesses and industries. Pre-requisite: MGT 283 or BAS 283. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MIT Medical Information Technology

MIT 103(3) Course ID:004510
Medical Office Terminology
Introduces students to medical terminology including familiar elements, body systems, operative procedures, pharmacology, and methods of researching medical information including, but not limited to, names and descriptions of diseases and drugs. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Course Also Offered in Modules, Technical

MIT 104(3) Course ID:004103
Medical Insurance
Introduces students to the basics of medical insurance including: insurance terminology, various coding systems, government programs, and general insurance procedures. Pre-requisite Or Co-requisite: MIT 103 or AHS 115 or CLA 131. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MIT 106(3) Course ID:004104
Introduction to Medical Transcription
Provides experience in transcription of basic medical dictation: incorporating English usage, transcription skills, medical knowledge, and proofreading and editing skills while meeting progressively demanding accuracy and productivity standards. Pre-requisite: Computer Literacy course and OST 110 and (ENG 101 or OST 108) and (AHS 115 or CLA 131 or MIT 103). Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MIT 204(3) Course ID:004105
Medical Coding
Develops medical coding skills using government mandated coding systems as applied. Includes other reimbursement methods and medical insurance concepts. Pre-requisite Or Co-requisite: MIT 104, BIO 135 or Equivalent. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical
MIT 205(3) Advanced Medical Coding Course ID:004509
Applies advanced coding rules for various coding systems and applies the rules to code patient services for a variety of payment systems emphasizing payment fraud and/or abuse. Pre-requisite: MIT 204 or MBS 120. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MIT 206(3) Medical Transcription Course ID:004106
Applies advanced concepts of medical transcription and provides advanced practice. Pre-requisite: MIT 106 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MIT 208(3) Instructor Consent Required Inpatient Coding Course ID:004507
Designed for students who have completed an entry-level coding course and are ready to move into more advanced hospital coding. Emphasizes inpatient coding using current government mandated coding systems. Pre-requisite: MIT 204. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MIT 212(1) Medications Course ID:004506
Introduces the student to Pharmacology: the most commonly used drugs, their names, and classification; and drug reference books while stressing spelling. Pre-requisite: (MIT 103 or AHS 115 or CLA 131) or Consent of Instructor. Lecture: 1.0 credit (15 contact hours).
Components: Lecture Attributes: Technical

MIT 217(3) Medical Office Procedures Course ID:004107
Provides a working knowledge of the duties required in a medical office. Includes professional and career responsibilities, interpersonal communication, administrative responsibilities, and financial administration. Pre-requisite Or Co-requisite: OST 110 OR CIT 105 or OST 105 or consent of instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MIT 219(3) Coding Exam Preparation Course ID:006970
Designed to prepare medical coding students to take a certifying exam to become a professional out patient coder. Includes outpatient coding cases and review of medical terminology, basic anatomy, basic pathophysiology, reimbursement issues, and advanced coding guidelines for government mandated coding systems. Pre-requisite: (MIT 204 and MIT 205) or MBS 120. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MIT 224(3) Medical Practice Management Course ID:016402
Introduces students to medical practice management from roles of staff members in healthcare to skills and responsibilities of the manager in relation to compliance and regulatory agencies. It identifies the requirements of managing the revenue cycle, compliance regulations, human resources, health information, and the general business processes. Pre-requisite Or Co-requisite: MIT 230, MIT 217, MIT 104. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MIT 227(3) Medical Office Software Course ID:004108
Provides a working knowledge of computer medical practice management software in a simulated medical office setting. Prepares medical practice and office professionals to efficiently use practice management software in managing the operational, patient and financial data in medical offices and hospital environment utilizing hands on computer applications. Covers medical practice software skills including appointment scheduling, patient registration, procedure posting, electronic payment posting, patient billing and collections, report generation and file maintenance. Enables students to process insurance claim forms and complete electronic billing cycle using current medical billing software. Focus on accuracy is emphasized. Pre-requisite: MIT 104 & MIT 217. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MIT 228(3) Electronic Medical Records Course ID:006340
Provides a working knowledge of computerized medical records software used in a variety of healthcare facilities. Pre-requisite: MIT 217. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

MIT 230(3) Medical Information Management Course ID:004109
Components: Lecture Attributes: Technical

MIT 250(3) Medical Information Technology Capstone Course ID:006971
Enhances the student’s transition from class to real world by providing unpaid learning activities related to the MIT field. Integrates work experience with academic instruction. Includes an internship, field experiences, and/or simulated work experiences in which the student applies previously or concurrently learned concepts to practical work situations within the MIT field. Pre-requisite: Consent of Program Coordinator. Lecture: 1.0 credit (15 contact hours). Practicum: 2.0 credits (120 credit hours).
Components: Lecture, Practicum Attributes: Technical

MIT 288(1 - 3) Medical Information Technology Internship Course ID:007326
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) Intro to Med Terms & Systems Course ID:016393
Introduces medical terminology including root words, prefixes and suffixes as well as general medical terms. Introductory level courses related to the skeletal, musular, blood, lymph, cardiovascular and respiratory systems. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 1032(1) Intermediate Body Systems Course ID:016394
Introduces medical terms related to the blood, lymph, cardiovascular, respiratory, digestive and urinary systems as well as skin. Pre-requisite: MIT 1031. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 1033(1) Diagnostics and Pharmacology Course ID:016395
Introduces the nervous, endocrine, reproductive systems as well as eyes and ears. Introduction to medical terms related to pharmacology and diagnostic and imaging procedures. Pre-requisite: MIT 1032. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 1041(1) Intro to Medical Insurance Course ID:016396
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) Medical Coding Overview Course ID:016397
Introduces various coding systems. Pre-requisite: MIT 1041. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 1043(1) Intro to Medical Forms Course ID:016398
Introduces insurance procedures and forms. Pre-requisite: MIT 1042. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 2041(1) Coding Systems Course ID:016399
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 150 or Equivalent; MIT 104. Lecture: 1.0 credit (15 contact hours).
Components: Lecture

MIT 2042(1) Inpatient Coding Course ID:016400
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) Outpatient Coding Course ID:016401
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 219(1) Medical Support Information Course ID:017218
Designed to prepare medical coding students to take a certifying exam to become a professional out patient (physician-based) coder as offered by AAPC or PHIA. Includes outpatient coding cases and review of medical terminology, basic anatomy, basic pathophysiology, reimbursement issues, and advanced coding guidelines for CPT, ICD-10-CM, and HCPCS coding systems. Pre-requisite: MIT 204 and MIT 205 or MBS 120. Lecture: 1 credit hour (15 contact hours).
Components: Lecture

MIT 218(2) Procedural and supply coding & Reimbursement issues Course ID:017219
Designed to prepare medical coding students to take a certifying exam to become a professional out patient (physician-based) coder as offered by AAPC or PHIA. Includes outpatient coding cases and review of medical terminology, basic anatomy, basic pathophysiology, reimbursement issues, and advanced coding guidelines for CPT, ICD-10-CM, and HCPCS coding systems. Pre-requisite: MIT 2191. Lecture: 1 credit hour (15 contact hours).
Components: Lecture
MIT 2193(1)  Course ID:017220  
Diagnostic coding  
Designed to prepare medical coding students to take a certifying exam to become a professional outpatients (physician-based) coder as offered by AAPC or PHIA.  
Includes outpatient coding cases and review of medical terminology, basic anatomy, basic pathophysiology, reimbursement issues, and advanced coding guidelines for CPT, ICD-10-CM, and HCPCS coding systems.  
Pre-requisite: MIT 2192. Lecture: 1.0 credit (15 contact hours).  
Components: Lecture

MIT 2303(1)  Course ID:016409  
Records Mgmt/Legal Issues  
Master file retention and archiving. Discusses legal and ethical aspects of medical records. Reinforces rules and regulations of medical filing systems and procedures.  
Pre-requisite: MIT 2302. Lecture: 1.0 credit (15 contact hours).  
Components: Lecture

MIT 2951(1)  Course ID:016840  
Office Skills Development  
Introduce a simulated office setting. Acquire knowledge, skills and abilities involved with managing work flow processes and procedures, the work environment. Apply decision making and working autonomously. Pre-requisite: Consent of Program Coordinator. Lecture: 1.0 credits (15 contact hours).  
Components: Lecture

MIT 2952(1.5)  Course ID:016841  
Simulations/Work-based Learning  
Complete a diverse set of learning activities and assigned tasks utilizing medical office simulation software or participate in a work-based learning experience such as internship/apprenticeship. Analyze and evaluate documents for data entry, storage, and data retrieval.  
Pre-requisite: MIT 2951 or Consent of Program Coordinator. Practicum: 1.5 credits (90 contact hours).  
Components: Practicum

MIT 2192(1)  Course ID:016876  
Managing the Medical Record  
Focuses on the correct use, care, regulations and rules concerning medical records. Pre-requisite OR Co-requisite: MIT 2241, MIT 230, MIT 217, MIT 104. Lecture: 1.0 credits (15 contact hours).  
Components: Lecture

MIT 2243(1)  Course ID:016877  
Medical Office Revenue Cycle  
Emphasizes accounting and payroll as well as marketing of the medical office. Pre-requisite OR Co-requisite: MIT 2242, MIT 230, MIT 217, MIT 104. Lecture: 1.0 credits (15 contact hours).  
Components: Lecture

MIT 2281(1)  Course ID:016403  
Intro to E-Health Records  
Provides an introduction to electronic health records and gives students a working knowledge of industry-standard electronic medical records software program emphasizing ethical and regulatory issues and methods. Pre-requisite: MIT 227 or consent of instructor. Lecture: 1.0 credit (15 contact hours).  
Components: Lecture

MIT 2282(1)  Course ID:016404  
Clinical Office Administration  
Provides a working knowledge of computerized medical records software to simulate tasks including to create/ maintain patient records and maintain office scheduling. Pre-requisite: 2282 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 and diagnosis codes. Pre-requisite: 2282 or consent of instructor. Lecture: 1.0 credit (15 contact hours).  
Components: Lecture

MIT 2301(1)  Course ID:016406  
Intro to Medical Info Mgmt  
Identify rules and regulations of medical filing systems and procedures. Pre-requisite: Digital Literacy. Lecture: 1.0 credit (15 contact hours).  
Components: Lecture

MIT 2302(1)  Course ID:016407  
Applied Medical Info Mgmt  
Apply rules and regulations of medical filing systems and procedures. Emphasizes management of both hard copy and magnetic media using alphabetic, numeric, chronologic, and color-coded filing systems. Pre-requisite: MIT 2301. Lecture: 1.0 credit (15 contact hours).  
Components: Lecture

MIT 2303(1)  Course ID:016409  
Records Mgmt/Legal Issues  
Master file retention and archiving. Discusses legal and ethical aspects of medical records. Reinforces rules and regulations of medical filing systems and procedures.  
Pre-requisite: MIT 2302. Lecture: 1.0 credit (15 contact hours).  
Components: Lecture

MIT 2951(1)  Course ID:016840  
Office Skills Development  
Introduce a simulated office setting. Acquire knowledge, skills and abilities involved with managing work flow processes and procedures, the work environment. Apply decision making and working autonomously. Pre-requisite: Consent of Program Coordinator. Lecture: 1.0 credits (15 contact hours).  
Components: Lecture

MIT 2952(1.5)  Course ID:016841  
Simulations/Work-based Learning  
Complete a diverse set of learning activities and assigned tasks utilizing medical office simulation software or participate in a work-based learning experience such as internship/apprenticeship. Analyze and evaluate documents for data entry, storage, and data retrieval.  
Pre-requisite: MIT 2951 or Consent of Program Coordinator. Practicum: 1.5 credits (90 contact hours).  
Components: Practicum

MKT 100(3)  Course ID:001713  
Introduction to Marketing  
This course addresses the essentials of marketing for small and large organizations and develops concepts such as publicity, promotion, and market research. While emphasizing the importance of communication, interpersonal and management skills. (Keyboarding recommended. Lecture: 3 credits (45 contact hours).  
Components: Lecture Attributes: Technical

MKT 155(3)  Course ID:004998  
Personal Selling  
The professional selling process which involves a series of interrelated activities is introduced. Emphasis is placed on planning and delivery of sales presentations. The six selling steps are examined - prospecting, qualifying, presenting, answering objections, closing, and the after-sale service. Students demonstrate effective sales techniques through simulation and role playing. Lecture: 3 credits (45 contact hours).  
Components: Lecture Attributes: Technical

MKT 282(3)  Course ID:004915  
Principles of Marketing  
Introduces the marketing function and how it is organized in various types of business organizations. Focuses on the marketing mix of product, price, distribution and promotion with attention to the marketing concept. Explores the impact of social responsibility and international marketing on the marketing function. Pre-requisite: BAS 160 or MGT 160 or consent of instructor. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture Attributes: Technical

MKT 291(3)  Course ID:004920  
Retail Management  
Retail structure, merchandising, promotions, store control, and decision making are examined in this course. Fundamental principles of store organization, consumer behavior, and retail service are addressed. Retailing trends, opportunities, and problems are included also. Lecture: 3 credits (45 contact hours).  
Components: Lecture Attributes: Technical

MKT 293(3)  Course ID:004921  
Buying and Merchandising  
Decision making strategies are used to solve problems inherent in merchandise selection. Analysis of financial statements and their relationship to buying situations are included, along with cost control and the establishment of sales goals and objectives. Mark-ups, reduction planning, unit cost control, and other computations are emphasized. Pre-requisite: BAS 291/MKT 291. Lecture: 2 credits (30 contact hours).  
Laboratory: 1 credit (30 contact hours).  
Components: Laboratory, Lecture Attributes: Technical

MIT 2951(1.5)  Course ID:016841  
Simulations/Work-based Learning  
Complete a diverse set of learning activities and assigned tasks utilizing medical office simulation software or participate in a work-based learning experience such as internship/apprenticeship. Analyze and evaluate documents for data entry, storage, and data retrieval.  
Pre-requisite: MIT 2951 or Consent of Program Coordinator. Practicum: 1.5 credits (90 contact hours).  
Components: Practicum

MIT 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 CLT Clinical Coordinator. Lecture/Lab: 3.0 credits (75 contact hours).  
Components: Laboratory, Lecture Attributes: Technical

MKT 112(2)  Course ID:004177  
Urinalysis  
Focuses on methodology and clinical significance of urine chemical analysis, interferences with chemical analysis procedures, screening methods used in diagnostic determinations, collection and handling of specimens, and the characteristics and clinical significance of formed elements of the urine. Includes the physiological function of the kidneys and diseases which affect the urinary system. Pre-requisite: Admission into the MLT program or permission of the MLT Program director/coordinator. Pre-requisite OR Co-requisite: MLT 101 or PHB 170. If taken as a pre-requisite, a minimum grade of "C". Lecture/Lab: 2.0 credits (45 contact hours).  
Components: Lecture Attributes: Technical

MKT 115(2)  Course ID:004178  
Serology  
Introduces basic immunological principles. Includes applications of serological testing for the diagnosis and monitoring of diseases and other antigenic responses. Pre-requisite: Admission into the MLT program or permission of the MLT Program director/coordinator. Pre-requisite OR Co-requisite: MLT 101 or PHB 170. If taken as a pre-requisite, a minimum grade of "C". Lecture/Lab: 2.0 credits (45 contact hours).  
Components: Lecture Attributes: Technical

MKT 119(3)  Course ID:004179  
Applied Laboratory  
Prepares the MLT student for clinical rotation into the major areas of the laboratory. Includes practical application in Hematology, Clinical Microbiology, Immunohematology, Urinalysis, Serology, and Clinical Chemistry. Pre-requisite: Admission into the MLT program or permission of the MLT Program director/coordinator. Pre-requisite OR Co-requisite: MLT 101. If taken as a pre-requisite, a minimum grade of "C". Lecture/Lab: 3.0 credits (105 contact hours).  
Components: Lecture Attributes: Course Also Offered in Modules, Technical

MLT Medical Laboratory Technology
MLT 205(3) Course ID:004181
Clinical Microbiology I
Introduces the application of microbiological principles to clinical laboratory practice. Includes safety and use of standard precautions, staining, selection and use of media, specimen processing, cultivation and identification of bacteria, and antimicrobial susceptibility testing. Pre-requisite: [MLT 101 and MLT 119] or BIO 225 with a grade of "C" or greater; admission into the MLT program; permission by MLT program director/coordinator. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
MLT 206(2) Course ID:004182
Clinical Microbiology II
Continues with the application of microbiological principles to clinical laboratory practice. Includes mycobacteria, parasitology, virology, and mycobiacteriology. Pre-requisite: Admitted into the MLT program; permission of the MLT program director/coordinator. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
MLT 207(2) Course ID:009282
Introduction to Clinical Diagnostic Microbiology
Reviews the basic concepts of bacterial cell structure, physiology, nomenclature and classification. Emphasizes safety in the microbiology department of the laboratory. Introduces specimen processing as it relates to the microbiology department in the clinical laboratory. Covers the practical importance of identifying microorganisms through morphology on culture media, appearance on gram stain, and biochemical reactions. Pre-requisite: Admission into the MLT program OR permission of the MLT Program Director/MLT Clinical Coordinator. Lecture/Lab: 2.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
MLT 208(3) Course ID:006399
Clinical Diagnostic Microbiology I
Discusses theoretical concepts, disease processes, identification schemes, diagnostic characteristics, biochemical reactions, susceptibility testing, and isolation techniques of gram positive and gram negative microorganisms associated with infections diagnosed in the clinical laboratory microbiology department. Pre-requisite: MLT 207 with a grade of "C" or better OR permission of the MLT Program Director/MLT Clinical Coordinator. Lecture/Lab: 3.0 credits (75 contact hours).
Components: Lecture
Attributes: Technical
MLT 209(2) Course ID:006400
Clinical Diagnostic Microbiology II
Explores the gram negative rods, spore forming gram positive bacilli, virology, mycobacterium, mycoplasma, spirochetes, myology and parasitology with focus on the clinical diseases and diagnostic procedures in the microbiology department of the clinical laboratory. Pre-requisite: MLT 208 with a grade of "C" or better OR permission of the MLT Program Director/MLT Clinical Coordinator Lecture/Lab: 2.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
MLT 215(4) Course ID:004183
Hematology I
Covers hemopoiesis and classic methodologies of standard hematology procedures. Includes the principles of various automated hematology analyzers, histograms and scattergrams. Provides students with the opportunity to perform basic hematology and coagulation procedures, correlate laboratory data to aid in diagnosis, and describe methodology of procedures and their clinical significance. Includes mechanisms of coagulation, routine coagulation testing, disease states associated with coagulation abnormalities, platelet evaluation, fibrinolysis and anticoagulant therapy. Pre-requisite: MLT 101 with a grade of "C" or greater OR admission into the MLT program OR permission by MLT program coordinator. Lecture/Lab: 4.0 credits (105 contact hours).
Components: Lecture
Attributes: Technical
MLT 216(3) Course ID:004184
Hematology II
Continues the study of hematolgy. 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
Prevents classic methodologies related to standard hematological 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: A grade of C or better in MLT 217 OR permission of the MLT Program Director/MLT Clinical Coordinator. Lecture/Lab: 4.0 credits (75 contact hours).
Components: Lecture
Attributes: Technical
MLT 225(2) Course ID:004185
Immunohematology I
Includes the principles of immunology in relation to blood banking, blood group systems, donor processing and screening, antibody screening, and blood components. Pre-requisite: 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: Admission into the MLT program OR permission of the MLT Program Director/MLT Clinical Coordinator Lecture/Lab: 4 credits (105 contact hours).
Components: Lecture
Attributes: Technical
MLT 233(3) Course ID:004187
Clinical Chemistry I
Provides a review of basic inorganic chemistry and organic chemistry principles and types of instrumentation commonly used in a medical laboratory. Covers carbohydrates, non-protein nitrogen compounds, proteins, lipids and enzymes as related to clinical diagnosis. Introduces quality control procedures, including statistical calculations for graph preparation and interpretation of gathered data. Pre-requisite: MLT 101 with a grade of "C" or greater and admission into the MLT program) or MLT Program Coordinator/Director. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (30 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
MLT 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 and external phone calls, communication with and registration of patients, insurance filing and data entry. Pre-requisite: Admission into the MLT program or permission of the MLT program director or coordinator. Clinical: 1.0 credit (30 contact hours).
Components: Clinical
MLT 278(4 - 5) Course ID:004253
Practicum I
Develops performance skills and professional attitude in the student in assigned areas of the clinical laboratory. Utilizes and depends upon external institutions to ensure adequate clinical education and training. Each clinical laboratory affiliate has designated personnel to assist the student in all assigned areas of the clinical laboratory. Provides a prescribed schedule of rotations in various departments of the laboratory for each individual student by the MLT Program Director. This practicum is designed to develop skills with strong supervisory instruction in all assigned departments. Pre-requisite: (MLT 101 with a grade of "C" or better) Or Admission into MLT program; Or permission by MLT program director/coordinator. Pre-requisite: MLT 101 with a grade of "C" or better OR Admission into MLT program OR permission by MLT Program Director/Coordinator. Practicum: 4-5 credits (240-300 contact hours).
Components: Practicum
Attributes: Course Also Offered in Modules, Technical
MLT 279(4 - 5) Course ID:004254
Practicum II
Develops performance skills and professional attitude in
the student in assigned areas of the clinical laboratory. Utilizes and depends upon external institutions to ensure adequate clinical education and training. Each clinical laboratory affiliate has designated personnel to assist the student in 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. 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: 2 - 2.5 credits (120-150 contact hours).

Components: Practicum
Attributes: Course Also Offered in Modules, Technical

MLT 1191(1.5) Course ID:005338
Applied Laboratory Part 1 Prepares the MLT student for clinical rotation into the major areas of the laboratory. Includes practical application in Hematology, Clinical Microbiology, and Urinalysis. Pre-requisite: MLT 101 with a grade of "C" or greater and admission into the program. Lecture: 0.5 credit (7.5 contact hours). Laboratory: 1.0 credit (45 contact hours).

Components: Laboratory, Lecture

MLT 1192(1.5) Course ID:005339
Applied Laboratory Part 2 Prepares the MLT student for clinical rotation into the major areas of the laboratory. Includes practical application in Clinical Immunohematology, Immunohematology, Serology, and Clinical Chemistry. Pre-requisite: MLT 1191 with a grade of "C" or greater. Lecture: 0.5 credit (7.5 contact hours). Lab: 1.0 credit (45 contact hours).

Components: Laboratory, Lecture

MLT 2781(2 - 2.5) Course ID:005340
Practicum I Part 1 Develops performance skills and professional attitude in the student in assigned areas of the clinical laboratory. Utilizes and depends upon external institutions to insure adequate clinical education and training. Each clinical laboratory affiliate has designated personnel to assist the student in assigned areas of the clinical laboratory. Provides a prescribed schedule of rotations in various departments of the laboratory for each individual student by the MLT program director. This practicum is designed to develop skills with strong supervisory instruction in all assigned departments. Pre-requisite: MLT 101 with a grade of "C" or greater or admission into the program. Practicum: 2 - 2.5 credits (120-150 contact hours).

Components: Practicum

MLT 2782(2 - 2.5) Course ID:005341
Practicum I Part 2 Develops performance skills and professional attitude in the student in assigned areas of the clinical laboratory. Utilizes and depends upon external institutions to insure adequate clinical education and training. Each clinical laboratory affiliate has designated personnel to assist the student in assigned areas of the clinical laboratory. Provides a prescribed schedule of rotations in various departments of the laboratory for each individual student by the MLT program director. This practicum is designed to develop skills with strong supervisory instruction in all assigned departments. Pre-requisite: MLT 2781 with a grade of "C" or greater. Practicum: 2 - 2.5 credits (120-150 contact hours).

Components: Practicum

MLT 2791(2 - 2.5) Course ID:005342
Practicum II Part 1 Develops career entry level performance skills and professional attitude in the student in assigned areas of the clinical laboratory. Provides an opportunity for more responsibility and independence with previously learned procedures. Enhances the student’s transition to the world of work by providing work experiences in a clinical setting. Utilizes and depends upon external institutions to insure adequate clinical education and training. Each clinical laboratory affiliate has designated personnel to assist the student in assigned areas of the clinical laboratory. Provides a prescribed schedule of rotations in various departments of the laboratory for each individual student by the CLT program director. Pre-requisite: MLT 101 with a grade of "C" or greater. OR Admission into the MLT program. Practicum: 2 - 2.5 credits (120-150 contact hours).

Components: Practicum

MLT 2792(2 - 2.5) Course ID:005343
Practicum II Part 2 Develops career entry level performance skills and professional attitude in the student in assigned areas of the clinical laboratory. Provides an opportunity for more responsibility and independence with previously learned procedures. Enhances the student’s transition to the world of work by providing work experiences in a clinical setting. Utilizes and depends upon external institutions to insure adequate clinical education and training. Each clinical laboratory affiliate has designated personnel to assist the student in assigned areas of the clinical laboratory. Provides a prescribed schedule of rotations in various departments of the laboratory for each individual student by the MLT program director. Pre-requisite: MLT 2781 with a grade of "C" or greater. Practicum: 2 - 2.5 credits (120-150 contact hours).

Components: Practicum

MNA 100(3) Course ID:001772
Medicaid Nurse Aide Provides knowledge and skills for nurse aides to assume the role and responsibility required in a long term care setting. Focuses on communication, infection control, safety, resident/patient rights, and basic nursing skills. Note: Faculty and clinical sites must comply with applicable Federal and Kentucky laws and regulations including but not limited to 42 USC 1396 and 907 KAR 1:450. Lecture/ Lab: 3.0 credits (75 contact hours). (45:1 ratio). Component: Lecture Course Equivalents: NAA 100

Attributes: Technical

MNG 102(3) Course ID:007356
Introduction to Mine Engineering and Mining Technology Provides orientation to the mining engineering and mining technology professions. Includes introduction to key mining engineering activities and functions, mining methods and equipment, and health and safety subsystems. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

MNG 123(4) Course ID:000576
Mining Electricity I Qualifies students to take the Mine Electrical Certification Exam administered by Kentucky Office of Mine Safety and Licensing. Includes topics of basic electricity, direct current circuits, impedance, reactance, power, electrical energy, permittance, underground and surface law, solid-state, and national instruments and applications. Co-requisite: MNG 125. Lecture: 4.0 credit hours (60 contact hours).

Components: Lecture Attributes: Technical

MNG 125(1) Course ID:005266
Mining Electricity I Lab Encompasses an elementary lab for mining technology students. Includes construction of circuits using electrical-measuring instruments in the analysis of the circuits with focus on electrical safety. Emphasizes mining electrical equipment circuits, permittance 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 an overview of state and federal regulations involving 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 160(3) Course ID:006664
Elements of Underground Mining Introduces underground mining methods, operations, and procedures. Includes topics of miners’ rights, work environments, health and safety standards, roof control, mine ventilation, transportation, communication, compressed gas cylinders, explosives, mine gases and instruments, electrical hazards, accident prevention, and emergency procedures. Lecture: 3.0 credits (45 contact hours).

Components: Lecture Attributes: Technical

MNG 170(2) Course ID:006668
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 180(3) Course ID:006769
Environmental Issues in Mining Introduces topic of how underground and surface mining operations impact the environment in a multitude of ways. Includes basic information related to geological formations in mining and structure of coal material. 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 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 255(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 288(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

323
MRN 100(3)  
Course ID: 006705  
Intro to Marine Technology  
Introduces 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: Technical

MRN 101(3)  
Course ID: 006706  
Anatomy of a Towboat  
Introduces components found on modern towboats with emphasis on an overview of all areas of the vessel from the wheelhouse to the engine room to the external components. Lecture: 3 credits (45 contact hours).

Components: Lecture  
Attributes: Course Also Offered in Modules, Technical

MRN 102(3)  
Course ID: 006707  
Basic Marine Safety  
Provides an overview of risk-based decision making skills for assessing and managing marine hazards to prevent marine accidents or casualty. Lecture: 3 credits (45 contact hours).

Components: Lecture  
Same As Offering: MRN 102  
Attributes: Course Also Offered in Modules, Technical

MRN 103(3)  
Course ID: 007412  
Applied Marine Weather  
Covers fundamental maritime weather concepts to plan safe and efficient voyages. Lecture: 3.0 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  
Co-Op Experience I  
Provides compensated co-op work experience under the supervision of a qualified affiliate of the industry. Pre-requisite: 360 hours of river industry experience. Co-requisite: Current employment with the company providing the co-op experience. Co-Op: 6 credits (450 contact hours).

Components: Co-Op  
Attributes: Technical

MRN 200(3)  
Course ID: 006709  
Shipboard Deck Operations  
Provides specific responsibilities, policies, training, safety and rigging procedures for towboat personnel. Pre-requisite: MRN 100. Lecture: 3 credits (45 contact hours).

Components: Lecture  
Attributes: Technical

MRN 201(3)  
Course ID: 006710  
Rules of the Road  
Provides an in-depth analysis of the United States Coast Guard (USCG) Navigation Rules with an emphasis on the history and interpretation of the rules. Lecture: 3 credits (45 contact hours).

Components: Lecture  
Attributes: Technical  
Same As Offering: MRN 201

MRN 202(3)  
Course ID: 006711  
Piloting and Navigation  
Identifies the effect of inland waterway prevailing conditions on vessels; provides instruction on locking procedures, radio telephone regulations, hydrology, and piloting skills. Lecture: 3 credits (45 contact hours).

Components: Lecture  
Attributes: Technical

MRN 203(3)  
Course ID: 006712  
Environmental Protection Rules  
Examines the environmental protection rules and regulations of the marine industry. Pre-requisite: MRN 100. Lecture: 3 credits (45 contact hours).

Components: Lecture  
Attributes: Technical

MRN 204(5)  
Course ID: 006713  
Marine Electrical Systems  
Explores and applies the theory of electricity with an emphasis on power systems, circuits, safety procedures, and maintenance measures needed to maintain electrical systems aboard towing vessels. Lecture/Lab: 5.0 credits (105 contact hours).

Components: Lecture  
Attributes: Technical

MRN 205(3)  
Course ID: 006714  
Marine Electrical Systems II  
Explores the maintenance measures needed to maintain electrical systems aboard towing vessels on the inland river system. Pre-requisite: MRN 204. Lecture/Lab: 3 credits (60 contact hours).

Components: Lecture  
Attributes: Technical

MRN 206(5)  
Course ID: 006715  
Marine Diesel  
Introduces the operation and components of a marine diesel engine with emphasis on engine theory, safety precautions, internal and external components, and contributing operation systems. Lecture/Lab: 5.0 credits (105 contact hours).

Components: Lecture  
Attributes: Technical

MRN 207(3)  
Course ID: 006716  
Marine Diesel II  
Identifies the various systems involved in the operation of a marine diesel engine, including the application of the knowledge of diesel operation to maintenance and troubleshooting exercises. Pre-requisite: MRN 206. Lecture/Lab: 3.0 credits (60 contact hours).

Components: Lecture  
Attributes: Technical

MRN 208(3)  
Course ID: 006717  
Inland River Systems  
Explores the U.S. inland waterway system and its tributaries as they relate to the inland marine industry and the movement of cargos. Lecture: 3.0 credits (45 contact hours).

Components: Lecture  
Attributes: Technical  
Same As Offering: MRN 208

MRN 210(5)  
Course ID: 007414  
Marine Fluid Systems  
Introduces the fundamentals of refrigeration, including use of tools, test equipment, materials, environmental issues, and safety. Lecture/Lab: 5.0 credits (105 contact hours).

Components: Lecture  
Attributes: Technical

MRN 299(6)  
Course ID: 006720  
Marine Co-Op Experience II  
Provides supervised on-the-job work experience directly in line with the students’ educational objective. Pre-requisite: MRN 199. Co-requisite: Current employment with the company providing the co-op experience. Co-op: 6 credits (450 contact hours).

Components: Co-Op  
Attributes: Technical

MSE 201(3)  
Course ID: 005596  
Introduction to Materials Science  
Provides an overview of the science of materials used in engineering applications. Pre-requisite: CHE 105, MA 113. Co-requisite: MA 114. Lecture: 3 credits (45 contact hours).

Components: Lecture  
Same As Offering: MSE 201, MSE 201

Attributes: Other, University Course (University of Kentucky)

MSG 100(4)  
Course ID: 003986  
Musculoskeletal Anatomy & Physiology I  
Provides extensive knowledge of the skeletal system and major joint articulations and an introduction to the muscular system of the human body from beginning terminology through the study of muscle tissue and neuromuscular fundamentals. Pre-requisite Or Co-requisite: (CLA131 or MST103 or AHS115). Co-requisite: MSG 125. Lecture: 4 credits (60 contact hours).

Components: Lecture  
Attributes: Technical

MSG 110(4)  
Course ID: 003987  
Musculoskeletal Anatomy and Physiology II  
Details muscular interactions at major joint articulations including biomechanical concepts and muscles, joints, and innervations of the upper and lower extremities. Pre-requisite: MSG 125. Pre-requisite Or Co-requisite: (CLA131 or OST103 or AHS115). Co-requisite: MSG 125. Lecture: 4 credits (60 contact hours).

Components: Lecture  
Attributes: Technical

MSG 117(4)  
Course ID: 016686  
Musculoskeletal Anatomy & Physiology I  
Introduces the skeletal system and major joint articulations. Integrates the skeletal system with the muscular system, beginning with basic terminology and advancing to the fundamental connection with muscle and neuromuscular tissue. Pre-requisite: AHS 115 or CLA 131 or MIT 103. Lecture/Lab: 4.0 credits (90 contact hours).

Components: Lecture  
Attributes: Technical

MSG Massage Therapy
MSG 119(4) Course ID: 016867
Musculoskeletal Anatomy & Physiology II
Details muscular interactions at major joint articulations including biomechanical concepts. Expands students' abilities to locate and affect muscles, joints, and innervations of the upper and lower extremities. Pre-requisite: MSG 119 Lecture: 4.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical

MSG 125(3) Course ID: 003990
Massage Techniques I
Introduces theory and technique of Swedish massage, including the history and benefits of massage, scope of practice, and performance of a one-hour full body 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 muscular system of the human body, beginning with basic terminology and advancing through the fundamentals of muscle and neuromuscular tissues. Enhances the students’ skills for delivering an improved one-hour full body therapeutic massage. Pre-requisite: MSG 132. Lecture/Lab: 3.0 credits (105 contact hours).
Components: Lecture
Attributes: Technical

MSG 135(3) Course ID: 003991
Massage Techniques II
Provides extensive knowledge of the skeletal system and major joint articulations and an introduction to the muscular system of the human body from beginning terminology through the study of muscle tissue and neuromuscular fundamentals. Pre-requisite: MSG 100 and MSG 125. Lecture: 1.0 credit (15 contact lab); Lab: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

MSG 205(3) Course ID: 005521
Advanced Clinical Massage I
Prepares the student in the knowledge and skills of advanced massage techniques and integrating them in a medical atmosphere. Co-requisite: MSG110. Lecture: 1.0 credit (15 contact hours). Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

MSG 210(3) Course ID: 005526
Advanced Clinical Massage II
Prepares students to integrate their massage practice into a clinical setting of rehabilitation of orthopedic conditions and injuries. Includes patient assessment, advanced orthopedics, and rehabilitative and preventative massage techniques. Pre-requisite: MSG205. Lecture: 1.0 credit (15 contact hours). Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

MSG 212(3) 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) Course ID: 016249
Massage Therapy Practicum and Special Topics:
This course addresses various massage therapy topics, issues, and trends. It also allows students to practice techniques already acquired, and to demonstrate mastery of new ones covered in the topics portion. Topics may vary from semester to semester at the discretion of the instructors; course may be repeated with different topics to a maximum of six credit hours. Pre-requisite: Massage Therapy Certificate. Practicum: 1-6 credits (60-360 contact hours).
Components: Practicum
Attributes: Technical

MST 200(3) Course ID: 001778
Advanced Hydraulic Systems
The advanced hydraulic systems class will cover design, repair, and troubleshooting of hydraulic systems. Pre-requisite: FPX 100, FPX 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

MST 201(2) Course ID: 001779
Advanced Hydraulic Systems Lab
The advanced hydraulic systems lab will cover design, repair, and troubleshooting of hydraulic systems. Pre-requisite: FPX 100, FPX101. Laboratory: 2 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

MST 204(3) Course ID: 001780
Advanced Pneumatic Systems
Design, repair, and troubleshooting of pneumatic systems will be covered in this course. Pre-requisite: FPX 100, FPX 101. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical
MSY 225(3)  Course ID: 001662
Brick Construction
Covers the application of laying brick to a line overhead, laying a rowlock course, and making weep holes. Emphasizes tying intersecting walls with masonry ties and construction cavity walls and planters. Pre-requisite: MSY 205 with a grade of "C" or higher or Consent of Instructor. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

MSY 233(3)  Course ID: 001663
Special Techniques in Brick Construction
Provides practice in constructing a variety of walls including arches. Pre-requisite: MSY 205 with a grade of "C" or higher or Consent of Instructor. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

MSY 245(3)  Course ID: 001664
Anchors and Reinforcement
Presents different types of reinforcement used in masonry units such as installing wall ties and reinforcing wire, tying intersecting walls with metal ties, installing masonry anchor bolts, setting and anchoring door and window frames, and setting steel lintels and bearing plates. Covers the installation of dovetail ties to concrete, setting preformed masonry lintels, and laying of paving brick in a herringbone pattern. Pre-requisite: MSY 105 with a grade of "C" or higher or Consent of Instructor. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

MSY 251(3)  Course ID: 001665
Concrete Finishing
Focuses on theory and techniques inherent in the art of concrete finishing. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

MSY 253(3)  Course ID: 001666
Masonry Floors and Steps
Provides students with the opportunity to lay paving brick, steps, and flagstone floors including laying different types of patterns. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

MSY 257(3)  Course ID: 001668
Stone
Includes identifying the types of stone and the different types of bonds used in stone masonry. Pre-requisite: MSY 105 with a grade of "C" or higher or Consent of Instructor. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

MSY 275(3)  Course ID: 001669
Fireplace Construction
Presents different types and styles of indoor and outdoor fireplaces, and the principles of layout, drafting and drawing a fireplace. Includes finishing dimensions of fireplace opening, firebox layout, setting the flue lining, and applying a chimney cap. Pre-requisite: MSY 205 with a grade of C or higher or Consent of Instructor. Laboratory: 3.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical

MSY 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 II
Provides additional supervised on-the-job work experience related to the student's educational objectives. Students participating in the Practicum do not receive compensation.

Pre-requisite: Consent of Instructor. Practicum: 3.0 credits (90 contact hours).
Components: Practicum
Attributes: Technical

MUC 190(1)  Course ID: 000593
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)

MUC 201(1-3)  Course ID: 002242
Piano
Students enrolled in MUP courses for two or more credit hours may be required to attend performance classes as well as lessons. Pre-requisite: Satisfactory audition and/or approval of instructor. Laboratory: varies.
Components: Laboratory
Attributes: Other

MUC 123(1-3)  Course ID: 002245
Instructor Consent Required
Voice
Students enrolled in MUP courses for two or more credit hours may be required to attend performance classes as well as lessons. Pre-requisite: Satisfactory audition and/or approval of instructor. Laboratory: varies.
Components: Laboratory
Attributes: Other

MUC 201(1-3)  Course ID: 002246
Instructor Consent Required
Piano
Students enrolled in MUP courses for two or more credit hours may be required to attend performance classes as well as lessons. Pre-requisite: Satisfactory audition and/or approval of instructor. Laboratory: varies.
Components: Laboratory
Attributes: Other

MUS 104(3)  Course ID: 0004548
Introduction to Jazz History
A survey of the many facets of jazz music. Designed to follow stylistic trends as developed from 19th century African and European influences to the modern forms of today. The study of significant composers, performers, and terminology associated with this uniquely American art form through listening assignments, reading and discussion activities. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities

MUS 106(3)  Course ID: 0006188
Music in Film
Presents a survey of the history of film from the silent era to the present. Develops critical listening, viewing, and analytical skills in relation to the function of music in film. Explores various cultural, artistic traditions which inform the musical styles in film. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: AH - Arts and Humanities, University Course (Morehead State University)

MUS 120(3)  Course ID: 0004609
Music Technology I
Introduces the use of technology as a tool for music creativity and productivity. Includes knowledge of how to create various styles of contemporary music utilizing loop and sampling based technology, creation of wav files, MP3 files, CD layout, and class projects. Pre-requisite: MUS 174 or Consent of Instructor. Lecture: 1 credit (15 contact hours), Laboratory: 2 credits (60 contact hours).
Components: Laboratory, Lecture
Attributes: Other

MUS 150(1)  Course ID: 0002231
Class Instruction in Piano I
Introduces the fundamentals of piano playing to beginners. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Other

MUS 151(1)  Course ID: 0002232
Class Instruction in Piano II
Develops the fundamentals of piano playing on a second level, with advanced beginner music and technique. Pre-requisite: MUS 150. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Other

MUS 152(1)  Course ID: 0002233
Class Instruction in Piano III
Develops the fundamentals of piano playing on an early intermediate level, with an emphasis on expanded repertoire. Pre-requisite: MUS 151. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Other

MUS 153(1)  Course ID: 0002234
Class Instruction in Piano IV
Develops the technique and musical content of piano playing on an upper intermediate level, with an emphasis on upper intermediate repertoire. Pre-requisite: MUS 152. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Other

MUS 155(1)  Course ID: 0002235
Instructor Consent Required
Voice Class for Non-Music Majors
Includes applied voice group instruction for non-music majors with emphasis on basic breathing and vocal technique, elements of music notation, and diction. May be repeated for a maximum of 2 credits. Pre-requisite: Consent of instructor. Lab: 1 credit (15 contact hours).
Components: Laboratory
Attributes: Other
MUS 172(3)  Course ID:016799  
Theory I for Bluegrass Music Majors  
Introduces the basic materials of musical organization, focusing on music reading, rudiments of notation, pitch, scale, tonal, and rhythmic organization, melodic construction, simple harmonic vocabulary, and beginning aural training.  
Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: Other  

MUS 173(3)  Course ID:016800  
Music Theory II for Bluegrass Music Majors  
Continues the study of the basic materials of musical organization, focusing on more advanced music reading and music notation.  
Introduces modal scales, the Nashville Number System, and bluegrass song structures.  
Pre-requisite: MUS 172.  
Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: Other  

MUS 174(3)  Course ID:002249  
Theory for Nonmusic Majors  
Introduces basic materials of musical organization, focusing on music reading, rudiments of notation, pitch, scale, tonal, and rhythmic organization, melodic construction, simple harmonic vocabulary, and beginning aural training.  
Uses individual composition and improvisation exercises to approach much of this material.  
Ability to read music is not a pre-requisite.  
Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: Other  

MUS 175(1)  Course ID:006791  
Instructor Consent Required  
Jazz Ensemble  
Introduces the study of jazz through performance and may be repeated to a maximum of four credits.  
Pre-requisite: Consent of Instructor.  
Lab: 1.0 credit (45 contact hours).  
Components: Laboratory  
Attributes: Other  

MUS 187(1)  Course ID:002239  
Instructor Consent Required  
Concert Band  
Continues instrumental music experience through participation in a large concert band.  
May be repeated to a maximum of four credits.  
Pre-requisite: Ability to read music and play a band instrument.  
Laboratory: 1 credit (15 contact hours).  
Components: Laboratory  
Attributes: Other  

MUS 192(1)  Course ID:002237  
University Chorus  
Includes choral literature and performance requiring attendance at up to five hours of rehearsals per week.  
May be repeated up to 3 times for a total of 4 credits.  
May require audition and/or consent of instructor.  
Pre-requisite: Audition and consent of instructor.  
Lab: 1 credit (15-45 contact hours).  
Components: Laboratory  
Attributes: Other  

MUS 206(3)  Course ID:000857  
American Music History  
Includes a history of music in America from c. 1620 to the present.  
Requires listening to recordings, reading the primary text and suggested readings in books, periodicals, and documents.  
Focuses on important names, places, events, and styles in music, as well as important historical and sociological trends.  
Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: AH - Arts and Humanities  

MUS 207(3)  Course ID:004774  
African American Music History  
A history of African American music from Pre-colonial West African diasporas through American colonial times to the present.  
Requires listening to recordings, reading the primary text and suggested readings in books and periodicals.  
Important names, places, events, and styles in music, as well as important historical and sociological trends will be presented within the context of the African American experience.  
Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: Cultural Studies, AH - Arts and Humanities  

MUS 208(3)  Course ID:004775  
World Music  
A geographic survey of selected music cultures throughout the world with hands-on experience playing the music of diverse cultures, audio/video examples of music-cultures in performances, reading and writing assignments, and attendance and reporting at live music events.  
Includes informational presentations by students, group listening and discussion, simple musical instrument construction, and small group projects.  
Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: AH - Arts and Humanities  

MUS 222(3)  Course ID:002253  
History and Sociology of Rock Music  
Provides a listening survey course, with a chronological approach, covering the years 1950- present.  
Emphasizes both the music and the sociological climate reflected and advocated by the music.  
Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: Other  

MUS 223(3)  Course ID:006581  
Music for Elementary Teachers  
Covers music rudiments of music theory and methods for teaching music to elementary school children.  
Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: Other  

MUS 261(2)  Course ID:000692  
Teaching Music in the Elementary Grades I  
Develops musicianship, skills, and techniques teachers need to direct musical activities effectively in the elementary classroom.  
Introduces music fundamentals and teaching materials through active participation in musical activities, focusing on music education appropriate for elementary grades.  
Should be taken by classroom teachers and non-music majors and followed by MUS 261.  
Lecture/Lab: 2 credits (45 contact hours).  
Components: Lecture  
Attributes: Other  

MUS 299(1 - 3)  Course ID:006343  
Special Topics in Music  
Examines selected topics in music and/or their impact on culture.  
May include but is not limited to individual composers, music genres, defined eras, and applied skills.  
Topics may vary from semester to semester at the discretion of the instructor.  
Pre-requisite: MUS 100 or consent of the instructor.  
Lecture: 1-3 credits (15-45 contact hours).  
Components: Lecture  
Attributes: Other  

MVC 299(1 - 8)  Course ID:017044  
Metroversity Topics  
Includes Special Topics for the Metroversity Consortium (Jefferson Community & Technical College, Bellarmine University, Indiana University Southeast, IVY Tech Community College, Louisville Presbyterian Theological Seminary, Southern Baptist Theological Seminary, Spalding University, and University of Louisville).  
Specific course descriptions, outlines, and competencies will be on file at the credit-bearing institution.  
GPA 2.0 and completion of 12 credit hours in KCTCS required.  
Lecture/ Lab: 1-8 credit hours.  
Components: Laboratory  

NAA 100(3)  Course ID:004611  
Nursing Assistant Skills I  
Provides knowledge and skills for nurse aides to assume the role and responsibility required in a long term care setting.  
The focus is communication, infection control, safety, resident/patient rights, and basic nursing skills.  
Note: Faculty and clinical sites must comply with applicable Federal and Kentucky laws and regulations including but not limited to 42 USC 1396 and 907 KAR 1:450.  
Lecture: 3 credits (75 contact hours).  
Components: Lecture  
Course Equivalents: MAA 100  
Attributes: Course Also Offered in Modules, Technical  

NAA 115(3)  Course ID:004612  
Nursing Assistant II  
Provides knowledge and skills for nurse aides to assume the role and responsibility required in a variety of health care settings.  
Builds upon MNA 100/NAA 100 and prepares the student to perform advanced nursing assistant skills.  
Pre-requisite: (MNA 100 or NAA 100) with a grade of “C” or above within one year) or Active Status on the Kentucky Nurse Aide Registry (in good standing) or consent of instructor.  
Lecture: 2.0 credits (30 contact hours) Lab: 1.0 credit (45 contact hours).  
Components: Laboratory, Lecture  
Attributes: Technical  

NAA 125(6)  Course ID:004613  
Advanced Nursing Assistant  
Provides knowledge and skills for nurse aides to assume the role and responsibility required in a variety of health care settings.  
Focuses on communication, infection control, safety, resident/patient rights while preparing the student to perform advanced nursing assistant skills.  
Note: Faculty and clinical sites must comply with applicable Federal and Kentucky laws and regulations including but not limited to 42 USC 1396 and 907 KAR 1:450.  
Lecture/ Lab: 6.0 credits (150 contact hours).  
Components: Lecture  
Attributes: Technical  

NAA 1021(1)  Course ID:016419  
Health Unit Coordinating  
Prepares communication skills and safety duties and responsibilities of the health unit coordinator.  
Lecture: 1 credit (15 contact hours).  
Components: Lecture  

NAA 1022(1)  Course ID:016420  
Health Unit Management  
Prepares health unit coordinator duties and responsibilities regarding confidentiality and legal and ethical issues.  
Pre-requisite: NAA 1021 Lecture: 1 credit (15 contact hours).  
Components: Lecture  

NAA 1023(1)  Course ID:016421  
Transcription of Orders  
Prepares order entry duties and responsibilities of the health unit coordinator.  
Pre-requisites: NAA 1022.  
Lecture: 1 credit (15 contact hours).  
Components: Lecture
NGT Natural Gas Technology

NGT 1001(0.25) Course ID:006446
Basic Procedures/Processes
Presents the major components of a natural gas system from head well 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 gas fuels. 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 used to measure gas input rates, gas flow, and pressure. Lecture: 0.25 credits (3.75 hours); Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 1004(0.75) Course ID:006449
Regulating Natural Gas
Presents factors related to measurement of natural gas in a distribution system, pressure regulation, accurate measurement of natural gas, and irregularities in meter installations. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 1005(0.5) Course ID:006450
Gas Distribution Calculations
Presents methods for calculating area and volume measurements, gas flow measurements and heating values, venting and ventilation requirements for proper burning of natural gas, and comparing fuel costs. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NGT 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:006442
Preventing Accidental Ignition
Identifies conditions, causes, and hazards related to gas leakage; emphasizes safety practices and procedures to prevent accidental ignition of natural gas. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1104(0.5 - 500) Course ID:006463
Traffic Control Guidelines
Present the basic standard for traffic control as described in the annual on Uniform Traffic Control Devices, Part VI. According to the U.S. Department of Transportation. Lecture/Laboratory: varies.
Components: Laboratory, Lecture

NGT 1401(0.5) Course ID:006465
Excavating
Focuses on the Occupational Safety and Health Administration (OSHA) requirements for earth excavation, protection systems, and tables and specifications for designing protective systems. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1402(1.25) Course ID:006466
Operating Equipment Safely
Presents techniques of tractor/loader/backhoe operation while emphasizing safety precautions, maintenance and inspection, and controlling hazardous energy. Lecture: 0.25 credits (7.5 contact hours); Lab: 1 credit hour (30 contact hours).
Components: Laboratory, Lecture

NGT 1403(0.75) Course ID:006467
Safety in Confined Spaces
Introduces confined spaces with emphasis on identifying hazards, monitoring of the atmosphere, entry procedures, and controlling hazardous energy. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.5 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 1404(0.5) Course ID:006468
Communicating Potential Hazard
Examines health related chemical and explosive hazards while emphasizing identification of hazard information from labels and material safety data sheets and methods used to work safely with toxic chemicals and hazardous materials. Lecture: .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 (7.50 contact hours).
Components: Lecture

NGT 1502(0.5) Course ID:006454
Gas Leaks/Odors
Presents basic facts about natural gas and natural gas leaks with emphasis on responding to gas leak and odor calls. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1503(0.5) Course ID:006455
Underground Facilities
Presents techniques and procedures basic to locating and marking underground pipeline facilities. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1504(0.5) Course ID:006456
Underground Leaks
Presents the theory and practice for investigating and pinpointing underground natural gas leaks. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1505(0.75) Course ID:006464
Patrol/Leakage Surveys
Presents factors basic to patrol of pipeline facilities to include the practice of patrol and leakage surveys.
Lecture: 0.5 credits (7.5 contact hours); Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1506(0.25) Course ID:006618
Detecting Carbon Monoxide
Presents the characteristics of carbon monoxide and the guidelines for investigation of carbon monoxide leakage. 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 on piping from the main to customer’s piping, piping inside buildings, and gas-operated equipment in service. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

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: 0.50 credits (7.5 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 safest practices and isolation of equipment during purging. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.25 credits (7.5 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 equipments, and ventilation inspection of gas-operated equipment. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1703(0.75) Course ID:006475
Venting Gas Equipment
Presents venting requirements for Categories I-IV gas-operated appliances; identifies features and benefits of high efficiency equipment with practice in sizing of vents and inspecting venting systems. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 1704(1.25) Course ID:006476
Electrical Concepts
Presents the basis for troubleshooting electrical control circuits in gas-operated appliances with emphasis on reading electrical circuit diagrams and their physical arrangement in the appliance. Lecture: 0.25 credits (3.75 contact hours); Lab: 1 credit (30 contact hours).
Components: Laboratory, Lecture

NGT 1801(0.5) Course ID:006477
Installing Mains & Lines
Presents practices basic to installing gas mains and service lines with emphasis on safety, standards, and line-marking. Lecture: 0.25 credits (3.75 contact hours); Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1900 Course ID:006478
Electrical Engineering
Presents the practice of applying electrical engineering principles to the design, analysis, and operation of electrical systems.
Components: Laboratory, Lecture

NFS Nutrition and Food Science

NFS 101(3) Course ID:000898
Human Nutrition and Wellness
Food composition, digestion, absorption, and metabolism as related to selection of nutrients essential for human life, growth, reproduction, lactation, wellness, and physical activity. Not open to NFS majors except hospitality management students. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other
NGT 1802(0.5) Course ID:006478
Pipeline Installation
Examines the preparation of the pipeline right-of-way and the completion of the construction operation; presents the major phases of the inspection process. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NGT 1803(0.5) Course ID:006479
Joining Plastic Pipe
Presents the material specifications and installation practices for polyethylene pipe, joining plastic pipe with mechanical fittings, and identification of methods to control static electricity. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1804(0.75) Course ID:006480
Plastic Pipe & Heat Fusion
Presents the theory of heat fusing polyethylene pipe and the specification and conditions required to produce an acceptable joint. Lecture: 0.5 credits (7.5 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1805(0.5) Course ID:006481
Permanent Field Repairs
Presents common methods and installation practices used to make field repairs on gas piping facilities and natural gas pipelines. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1806(0.25) Course ID:006482
Joining Copper Pipe
Presents materials and techniques for joining copper pipe/tubing. Lecture: 0.25 credits (3.75 contact hours).
Components: Lecture

NGT 1901(0.5) Course ID:006483
Maintaining Line Valves
Presents basic design characteristics and maintenance procedures for pipeline valves. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NGT 1902(0.5) Course ID:006484
Pressure Relief Valves
Presents components and operating characteristics of typical pressure relief valve installations; emphasizes spring-operated and pilot-operated pressure relief valves; focuses on factors to consider when installing pressure relief valves. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NGT 1903(0.5) Course ID:006485
Abandon/Deactivate Facilities
Presents processes and procedures for deactivating/abandoning gas facilities. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1904(0.5) Course ID:006486
Cast Iron Pipe
Presents materials and procedures for repairing cast iron pipe; emphasizes protection of cast iron pipe while excavating. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 1905(1) Course ID:006487
Inspecting Pipe Welds
Presents duties and responsibilities basic to the practice of inspecting pipe welds; emphasizes the identification and evaluation of weld defects. Lecture: 0.5 credits (7.5 contact hours), Lab: 0.5 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 2001(0.75) Course ID:006488
Tapping/Stopping Pipelines
Presents techniques used to safely tap and stop pipelines under pressure. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 2002(0.75) Course ID:006489
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 performing tie-in/bypass operations. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 2051(0.5) Course ID:006492
Corrosion Control
Presents the characteristics of corrosion, conditions causing corrosion in buried metal piping, and processes and procedures basic to corrosion control. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2052(0.5) Course ID:006493
Installing Cathodic Systems
Presents procedures for installing cathodic protection systems. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2053(0.5) Course ID:006494
Testing Corrosion Systems
Presents methods for monitoring and testing corrosion control systems. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2054(0.5) Course ID:006495
Monitoring Corrosion Control
Presents information and techniques for monitoring corrosion control methods on buried metal pipelines. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2101(1) Course ID:006496
Principles of Electricity
Presents the basics of both D.C. and A.C. electrical theory with an emphasis on current flow designs. Lecture: 1 credit (15 contact hours).
Components: Lecture

NGT 2102(1) Course ID:006497
Rectifier Components
Presents the theory of 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: 0.25 credits (7.5 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: 0.50 credits (15 contact hours).
Components: Laboratory, Lecture

NGT 2201(0.5) Course ID:006499
Gas Measurement
Presents concepts and principles basic to gas measurement; demonstrates the effects of gas pressure and temperature on gas measurement using mathematical calculations; reviews the operating principles of orifice, rotameter 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 odors into a natural gas system; emphasizes testing for odorant levels and the proper handling of odors. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2205(0.5) Course ID:006503
Dew Point of a Gas
Covers theory and practice used to test the dew point of a gas, explains methods used to test moisture in gas. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2301(0.5) Course ID:006504
Orifice Meters
Presents operating principles of orifice meters; emphasizes the identification of the meter components and their functions in the measurement process. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NGT 2302(0.5) Course ID:006505
Turbine Meters
Presents operating principles of turbine type meters; emphasizes the identification of the meter components and their functions in the measurement process. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture

NGT 2303(0.5) Course ID:006506
Diaphragm Meters
Presents operating principles of diaphragm-type meters; emphasizes the identification of the meter components and their functions in the measurement process. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2304(0.5) Course ID:006507
Rotary Meters
Presents operating principles of rotary type meters; emphasizes the identification of the meter components and their functions in the measurement process. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2305(0.5) Course ID:006508
Pressure Relief Valves
Presents purpose and operating characteristics of pressure relief valves; emphasizes inspecting, testing and maintenance of relief valves. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture

NGT 2306(0.5) Course ID:006509
Recording Charts
Presents basic technology used to transfer information to a recording chart; emphasizes how to change, interpret, and send charts. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).
Components: Laboratory, Lecture
presentations 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 Load 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:006814
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:006815
Multiple Range Pressure Chart
Presents concepts and principles basic to reading multiple range pressure recording charts. Lecture: 0.25 credits (3.75 contact hours), Lab: 0.25 credits (7.5 contact hours).

Components: Laboratory, Lecture

NIP Nursing Integrated Program

NIP 103(2) Course ID:016649
Introduction to Pharmacology
Introduces dosage calculations and medication administration of commonly used medications. Includes an overview of common drug classifications and their effects. Emphasizes nursing responsibility, accountability and application of nursing process to drug therapy across the lifespan. Pre-requisite: Admission to the Integrated Nursing program and proof of active status on the Kentucky Nurse Aid Registry. Completion, with a grade of “C” or better, of BI0135, PSY110, ENG 101. Students must have Basic Life Support 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 components of practice: context, 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. Examines the patient’s needs, health promotion, various treatment modalities, and nursing interventions, through health theory and application. Pre-requisite: Completion with a grade of “C” or better in NIP 103, NIP 116; Student must have Basic Life Support certification, current liability insurance coverage and current immunizations for the duration of the course. Pre-requisite or Co-requisite: AHS 100. Lecture: 7.5 credits (112.5 contact hours). Laboratory: 3.5 credits (55.5 contact hours).

Components: Clinical, Laboratory, Lecture Attributes: Technical

NIP 140(6) Course ID:005435
Practical Nursing Role Transition
Prepares students to assume the role of graduate practical nurse. Promotes clinical judgment, delegation and collaboration in the provision of safe, ethical, holistic patient centered care. Explores healthcare management systems and employment seeking skills as students begin to develop a professional identity. Includes a clinical practicum in a health care facility utilizing the nursing process and evidence-based information in delivering clinically competent care. Pre-requisite: Completion with a grade of “C” or better in NIP126. Students must have Basic Life Support certification, current liability insurance coverage and current immunizations for the duration of the course. Lecture: 2.0 credits (30 contact hours), Clinical: 4.0 credits (180 contact hours).

Components: Clinical, Lecture Attributes: Digital Literacy, Course Also Offered in Modules, Technical

NIP 212(10) Course ID:016117
Advanced Medical Surgical Nursing
Focuses on advanced assessment of diverse individuals throughout the lifespan by incorporating the intergrating concepts of nursing practice: context and environment, knowledge and science, personal/professional development, quality and safety, relationship-centered care, and teamwork. Utilizes the nursing process in care and management of clients with complex health care needs and disorders of self-defense/protection: skin, hair and nails, cancer, immune system, hematological system, cardiovascular system, respiratory system, endocrine system, gastrointestinal system, reproductive system, renal system, nervous system, and musculoskeletal system across the lifespan. Pre-requisite: Completion with grade of “C” or better in NIP 126. Pre-requisite or Co-requisite: AHS 139. Lecture: 7.0 credits (105 contact hours). Clinical: 3.0 credits (135 contact hours).

Components: Clinical, Lecture Attributes: Digital Literacy, Course Also Offered in Modules, Technical

NIP 215(7) Course ID:005438
Leadership and Specialty Practice
Prepares the student in the Associate Degree Nursing Program to assume the role of a graduate nurse in the synthesis and application of the nursing process for the holistic care of the patient with complex, multidimensional stressors. Emphasizes leadership and management of care, continued skill development and professionalism: to include ethics, integrity, excellence diversity and caring. Introduces the nursing student to the dynamics and issues of teams, organizations and the health care system that require effective leadership intervention. Focuses on 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 with nursing courses and provisions for practice in predominantly distributive health care settings. Emphasizes the utilization of the nursing process, prevention of illness, maintenance of health, and the restoration of wellness of individuals, families, and communities, experiencing adaptation to complex health problems. Utilizes management skills and techniques in the delivery of patient-centered nursing care to facilitate the role transition from student to professional nurse. Utilizes clinical experiences occurring in a variety of health care settings for students to gain practical knowledge in important nursing leadership areas which include cost containment, time-management, staffing, delegation and health system issues in order to benefit the nurse in the leadership and management role. Pre-requisite: Completion with a grade of “C” or better in NIP 212 and Quantitative Reasoning to meet the AA or AS requirement. Students must have Basic Life Support certification, current liability insurance coverage and current immunizations for the duration of the course. Pre-requisite or Co-requisite: HSA 100. Lecture: 4.0 credits (60 contact hours), Lab/Clinical: 3.0 credits (135 contact hours).

Components: Clinical, Laboratory, Lecture Attributes: Digital Literacy, Course Also Offered in Modules, Technical
NIP 220(2)  Course ID:016095
Advanced Cardiac & Emergent Care
Focuses on administration of care for acute cardiovascular emergencies including cardiac arrest, acute myocardial infarction, and stroke. Prepares students to participate in emergency care of patients highlighting the importance of team dynamics and communication, systems of care, and immediate post-cardiac-arrest care. Educates students on airway management and related pharmacology. Students demonstrating essential knowledge and skills, obtaining 85% or greater on the written exam, and successfully completing the megacode will receive an American Heart Association ACLS provider card. Pre-requisite: Completion with grade of "C" or better in NIP 211 and MAT 150. Students must have successful certification. Co-requisite: NIP 215. Lecture: 0.5 credits (7.5 contact hours). Lab: 1.5 credits (67.5 contact hours). Components: Laboratory, Lecture
Attributes: Technical

NPN 101(6)  Course ID:005727
Nursing Fundamentals
Provides a historical overview of health care system and roles and responsibilities of members of the health care team. Emphasizes practical nursing and the nursing process in the context of Gordon’s Functional Health Patterns and Maslow’s hierarchy of needs as related to client daily living across the life span. Covers fundamental nursing skills including therapeutic communication techniques; nursing assessment; nursing process and care planning; charting; legal and ethical parameters of health care; rest and sleep; 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 Digital Literacy as defined by KCTCS. Pre-requisite or Co-requisite: [(BIO 135 or BIO 139), if prerequisite, a grade of "C" or greater must be achieved]. Lecture: 2.0 credits (30 contact hours). Components: Lecture
Attributes: Technical

NPN 105(6)  Course ID:004022
Development of Care Giver Role
Introduces nursing and the nursing process as related to client activities of daily living across the life span. Provides an opportunity to develop and practice psychomotor skills related to health assessment, promotion, maintenance, and illness prevention. Pre-requisite: Admission to Practical Nursing program AND CPR for Health Care Providers certification to be maintained throughout enrollment in the program AND [(NAA 100 or equivalent) within the past three years OR active status on the Medicaid Nurse Aide Registry] AND Digital Literacy as defined by KCTCS. Pre-requisite or Co-requisite: [(BIO 135 or BIO 139), if prerequisite, a grade of "C" or greater must be achieved]. Lecture: 3.0 credits (45 contact hours). Lab: 3.0 credits (45 contact hours). Lab/Clinical: 1.0 credit (15 contact hours). Lab: 3.0 credits (45 contact hours). Lab/Clinical: 1.0 credit (15 contact hours). Components: Laboratory, Lecture
Attributes: Technical

OR Consent of PN Coordinator. Lecture: 3.0 credits (45 contact hours). Lab: Clinical: 3.0 credits (45:1 ratio/135 contact hours). Components: Clinical, Laboratory, Lecture
Attributes: Digital Literacy, Technical

NPN 108(6)  Course ID:005627
Fundamentals of Nursing Care
Provides a historical overview of health care system and roles and responsibilities of members of the health care team. Emphasizes practical nursing and the nursing process in the context of Maslow’s hierarchy of needs as related to client daily living across the life span. Covers fundamental nursing skills including therapeutic communication techniques; nursing assessment; nursing process and care planning; charting; legal and ethical parameters of health care, rest and sleep; body mechanics and introductory content on the surgical experience. Pre-requisite: Admission to Practical Nursing program AND CPR for Health Care Providers certification to be maintained throughout enrollment in the program AND [(NAA 100 or equivalent) within the past three years OR active status on the Medicaid Nurse Aide Registry] AND Digital Literacy as defined by KCTCS. Pre-requisite or Co-requisite: BIO 130 and NPN 130 and NPN 201) or Consent of PN Coordinator. Minimum "C" grade. Pre-requisite or Co-requisite: [BIO 135 and BIO 139) If prerequisite, a grade of "C" or greater must be achieved]. Lecture: 1.0 credit (15 contact hours). Lab/Clinical: 2.0 credits (90 contact hours). Components: Clinical, Laboratory, Lecture
Attributes: Digital Literacy, Course Also Offered in Modules, Technical

NPP 110(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-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), if prerequisite, a grade of "C" or greater must be achieved]. Lecture: 2.0 credits (30 contact hours). Lab: Clinical: 1.0 credit (45 contact hours). Components: Laboratory, Lecture
Attributes: Digital Literacy, Course Also Offered in Modules, Technical

NPN 110(2)  Course ID:004023
Pharmacology I
Introduces techniques used to administer medications. Includes dosages, diagnostic studies, related medical therapies, and legal responsibilities. Pre-requisite: Admission to Practical Nursing program AND CPR for Health Care Providers certification to be maintained throughout enrollment in the program AND [(NAA 100 or equivalent) within the past three years OR active status on the Medicaid Nurse Aide Registry] AND Digital Literacy as defined by KCTCS. Pre-requisite or Co-requisite: [(BIO 135 or BIO 139), if prerequisite, a grade of "C" or greater must be achieved]. Lecture: 1.0 credit (15 contact hours). Lab: Clinical: 1.0 credit (45:1 ratio/45 contact hours). Components: Laboratory, Lecture
Attributes: Technical

NPN 111(3)  Course ID:005728
Pharmacology II
Admission to Practical Nursing program AND CPR for Health Care Providers certification to be maintained throughout enrollment in the program AND [(NAA 100 or equivalent) within the past three years OR active status on the Medicaid Nurse Aide Registry] AND Digital Literacy as defined by KCTCS. Pre-requisite or Co-requisite: [(BIO 135 or BIO 139), if prerequisite, a grade of "C" or greater must be achieved]. Lecture: 1.0 credit (15 contact hours). Lab: Clinical: 1.0 credit (45:1 ratio/45 contact hours). Components: Laboratory, Lecture
Attributes: Technical

NPN 125(3)  Course ID:004025
Mental Health
Applies nursing process to clients experiencing common mental health problems with emphasis on assisting clients to cope with psychological problems throughout the life span i.e., chemical dependency, violence and other stress and illness prevention. Pre-requisite: Pathway 1: [(NPN 100 and NPN 105 and NPN 110) and (BIO 135 or BIO 139) or Consent of PN Coordinator. Minimum "C" grade. Pre-requisite Or Co-requisite: Pathway 2: [(NPN 101 and NPN 111 and (BIO 135 or BIO 139) and (AHS 120 or AHS 115 or OST 103 or CLA 131). If prerequisite, a grade of "C" or greater must be achieved.) Pathway 3: [(NPN 106 and NPN 108 and BIO 139) If prerequisite, a grade of "C" or greater must be achieved. Lecture: 2.0 credits (30 contact hours). Lab: Clinical: 1.0 credit (45 contact hours). Components: Clinical, Laboratory, Lecture
Attributes: Technical

NPN 130(3)  Course ID:004026
Pharmacology II
Identify common drugs by classification and effects with emphasis on responsibility, accountability, and application of the nursing process to drug therapy. Pre-requisite: [(NPN 100 and NPN 105 and NPN 110 and (BIO 135 or BIO 139) or Consent of PN Coordinator. Minimum "C" grade. Lab: Clinical: 1.0 credit (45 contact hours). Components: Clinical, Laboratory, Lecture
Attributes: Technical

NPN 135(6)  Course ID:004027
Introduction to Health Deviation
Applies the nursing process for selected child/adult clients experiencing common health deviations interfering with activities of daily living; emphasis is on the nurse as the provider of care. Pre-requisite: Pathway 1: [(NPN 106 and NPN 108 and BIO 139) or Consent of PN Coordinator. Minimum "C" grade. Pathway 2: [(NPN 101 and NPN 111) and (BIO 135 or BIO 139) and (AHS 115 or AHS 120 or CLA 131 or OST 103) Minimum "C" grade. Lecture: 3.0 credits (45 contact hours). Lab/Clinical: 3.0 credit (45:1 ratio/135 contact hours). Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules

NPP 140(3)  Course ID:005629
Nursing Care I
Applies nursing process to selected child/adult clients experiencing common health deviations related to interferences with activities of daily living and/or interruption of body structure and function related to surgical interference. Pre-requisite: [(NPN 106 and NPN 108 and BIO 139), Minimum "C" grade). Prerequisite or Corequisite: [(NPN 125 and NPN 201). If prerequisite, a grade of "C" or greater must be achieved]. Lecture: 2.0 credits (30 contact hours). Lab/Clinical: 1.0 credit (45:1 ratio/45 contact hours). Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules

NPN 200(5)  Course ID:004028
Med Surg I
Applies nursing process to selected child/adult clients experiencing common health deviations interfering with activities of daily living with emphasis on the nurse as the provider of care. Pre-requisite: (NPN 125 and NPN 130 and NPN 135 and NPN 201) or Consent of PN Coordinator. Minimum "C" grade. Lecture 3 credits (45 contact hours). Lab: Clinical: 2 credits (90 contact hours). Components: Clinical, Laboratory, Lecture
Attributes: Technical

331
NRS 201(9) Course ID:004332 Nursing Care I Establishes the foundational knowledge for competency based nursing practice within the context of the contemporary health care delivery system by introducing the nursing process and basic nursing concepts as a framework for organizing care delivery. Introduces the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry and Quality and Safety Education for Nurses (QSEN). Applies problem-solving and critical thinking skills in the care of patients across the life span and of diverse cultures with actual or potential alterations in health due to common acute and chronic health problems. Includes the application of the nursing process to meet the needs of patients at the practical nursing level. Pre-requisite: Admission to the Nursing Program; Proof of active status on Kentucky Nurse Aide Registry or its equivalent; BIO 137 and Quantitative Reasoning Course at AA/AS Level with a grade of “C” or better; PSY 110. Pre-requisite Or Co-requisite: BO 139 with a grade of “C” or better. Lecture: 1.0 credit (15 contact hours). Components: Clinical, Lecture
Attributes: Technical
NRS 202(10) Course ID:004335 Nursing Care II Includes the application of problem-solving and critical thinking skills in the care of patients across the life span and of diverse cultures with actual or potential alterations in health due to common acute and chronic health problems. Provides care of patients during the childhood cycle focusing on common health alterations in the reproductive process. Strengthens the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry and Quality and Safety Education for Nurses (QSEN) while higher level skills are introduced. Includes an integrated clinical practicum of direct patient care in a health care facility or health care organization to facilitate the transition from student role to LPN practice. Pre-requisite: NRS 101 with letter grade of “C” or better. Pre-requisite Or Co-requisite: ENG 101. Lecture: 5 credit hours (75 contact hours). Clinical: 5 credit hours (225 contact hours).
Components: Clinical, Lecture
Attributes: Technical
NRS 203(10) Course ID:004334 LPN-ADN Transition Facilitates the transition of licensed practical nurses into the nursing mobility program by building upon previous knowledge, attitudes, and cognitive and psychomotor skills using strategies of adult learning. Strengthens the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry and Quality and Safety Education for Nurses (QSEN). Oriented the student to the philosophy and organizing framework of the ADN Program and assists the practical nurse in the role transition to registered nursing. Essential concepts and beginning problem-solving skills required for registered nursing practice are emphasized. Nineteen credit hours in nursing will be awarded upon successful completion of the course. Pre-requisite: Admission to nursing program; BIO 137, BIO 138, and Quantitative Reasoning Course at AA/AS Level with a grade of “C” or better; ENG 101, PSY 110. Lecture: 3 credit hours (45 contact hours).
Components: Lecture
Attributes: Technical
NRS 204(10) Course ID:004336 Nursing Care IV Integrates previous knowledge and skills into the development of the associate degree nurse. Focuses on the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry and Quality and Safety Education for Nurses (QSEN) with an emphasis on leadership, management, clinical decision-making, collaboration, knowledge, judgment, skills and professional values within a legal/ethical framework. Applies problem-solving and critical thinking skills in the care of diverse patients/families across the lifespan with actual or potential alterations in health due to complex acute and chronic health problems. Includes an integrated clinical practicum of direct patient care in a health care facility or health care organization to facilitate the transition from student role to RN practice. Pre-requisite: NRS 203 and BIO 225 with a grade of “C” or better. Pre-requisite Or Co-requisite: BIO 225 with a grade of “C” or better. Lecture: 5 credit hours (75 contact hours) Clinical: 4 credit hours (180 contact hours).
Components: Clinical, Lecture
Attributes: Technical
NSG Nursing
NSG 100(3) Course ID:005269 Preparation for Nursing Explores careers in the nursing profession. Includes career options and educational pathways, goal setting and self-awareness, tools/strategies for success in nursing programs, and trends impacting nursing’s future. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical
NSG 101(9) Course ID:000568 Nursing Practice I Focuses on nursing practice within the context of the contemporary health care delivery system by introducing the nursing process and basic nursing concepts as a framework for organizing care delivery. Emphasizes foundational knowledge of nursing practice, skills acquisition, and the basic care of diverse patient populations. Introduces the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry and Quality and Safety Education for Nurses (QSEN). Pre-requisite: Admission to the Associate Degree Nursing program (BIO 137 and Quantitative Reasoning Course at AA/AS level) with a grade of “C” or better; PSY 110, and 75 hour nursing assistant course or its equivalent. Pre-requisite Or Co-requisite: BIO 139 with a grade of “C” or better. Lecture: 5 credits (75 contact hours). Clinical: 4 credits (180 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Technical
NPN 201(3) Course ID:004024 Child Bearing Family Applies nursing process to childbearing families with focus on health promotion and common health alterations in the reproductive process. Pre-requisite: Pathway 1:NPN 100 and NPN 105 and NPN 110) and (BIO 135 or BIO 139) and or Consent of PN Coordinator. Minimum “C” grade. Pathway 2:(NPN 101 and NPN 111) and (BIO 135 or BIO 139) Minimum “C” grade. Pathway 3:(NPN 106 and NPN 108 and BIO 139 ) Minimum “C” grade. Pre-requisite Or Co-requisite: Pathway 2:NPN 202 and Medical Terminology. If prerequisite, a grade of “C” or greater must be achieved. Lecture: 2.0 credits (30 contact hours). Lab: 1.0 credit (45 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical
NPN 202(6) Course ID:005729 Med-Surg I Alterations Applies nursing process to selected child/adult clients experiencing common health deviations related to metabolic dysfunctions, fluid and electrolyte imbalances, cardiovascular dysfunctions, and cellular deviations that interfere with activities of daily living with emphasis on the nurse as the provider of care. Pre-requisite: (NPN 101 and NPN 111) and BIO 135 or BIO 139) and or Consent of PN Coordinator. Minimum “C” grade. Pathway 1:NPN 210(4) Course ID:004030 Pathway 2:NPN 210(4) Course ID:004030 Minimum “C” grade. Pathway 3:NPN 208. Minimum “C” grade. Pre-requisite or Co-requisite: Pathway 2: NPN 206. If prerequisite, a grade of “C” or greater must be achieved. Lecture: 1.0 credit (15 contact hours), Practicum: 3.0 credits (45 contact hours).
Components: Lecture, Practicum
Attributes: Digital Literacy, Course Also Offered in Modules, Technical
Components: Clinical, Lecture
Attributes: Digital Literacy, Course Also Offered in Modules, Technical
NPN 205(5) Course ID:004029 Med Surg II Applies the nursing process to child/adult clients experiencing more complex health alterations; the focus is on multi-system failure, fluid and electrolytes, neurological problems, and cellular deviation. Pre-requisite: NPN 200. All courses must be achieved with a grade of “C” or higher. Lecture: 3.0 credits (45 contact hours); Lab/Clinical: 2.0 credits (90 contact hours)
Components: Clinical, Laboratory, Lecture
Attributes: Technical
NPN 206(6) Course ID:005730 Med-Surg II Alterations Applies nursing process to selected child/adult clients experiencing complex health issues related to multi-system failure, neurological disorders, coordination dysfunctions, and elimination problems that interfere with activities of daily living with emphasis on the nurse as the provider of care. Pre-requisite: NPN 202 with a grade of “C” or greater) or Consent of PN Coordinator. Pre-requisite or Co-requisite: NPN 135. If prerequisite, a grade of “C” or greater must be achieved. Lecture: 4 credits (60 contact hours). Lab/Clinical: 2.0 credits (90 contact hours)
Components: Clinical, Laboratory, Lecture
Attributes: Technical
NPN 208(10) Course ID:005630 Nursing Care II Applies nursing process to selected child/adult clients experiencing common health deviations related to metabolic dysfunctions, complex cardiovascular dysfunctions, cellular deviations and complex health issues related to multi-system failure, neurological disorders, coordination dysfunctions, and elimination problems that interfere with activities of daily living. Pre-requisite: BIO 137, BIO 139, NPN 106, NPN 108, and NPN 125 with a grade of “C” or greater. Pre-requisite or Co-requisite: NPN 140 and NPN 201 and NPN 205 with a grade of “C” or better. Lecture: 6 credits (90 contact hours), Laboratory: 4 credits (180 contact hours)
Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical
NPN 210(4) Course ID:004030 Clinical Practicum Integrates the theoretical concepts learned throughout the program in application of this knowledge during the direct care of clients. Promotes critical thinking and problem solving skills during the nursing role performances of provider of care, manager of care, and member within the discipline. Pre-requisite: Pathway 1: NPN 205. Minimum “C” grade. Pathway 3: NPN 208. Minimum “C” grade. Pre-requisite or Co-requisite: Pathway 2: NPN 206. If prerequisite, a grade of “C” or greater must be achieved. Lecture: 1.0 credit (15 contact hours), Practicum: 3.0 credits (45 contact hours).
Components: Lecture, Practicum
Attributes: Digital Literacy, Course Also Offered in Modules, Technical

NSG 106(9)  Course ID:006179
Nursing One
Focuses on nursing practice within the context of the contemporary health care delivery system by introducing the nursing process and basic nursing concepts as a framework for organizing care delivery. Emphasizes foundational knowledge of nursing practice, skills acquisition, and the basic care of diverse patient populations with risk for or actual common chronic health pattern dysfunctions. Introduces the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry.
Pre-requisite: Admission to the Associate Degree Nursing program. [BIO 137 (within ten years) and Quantitative Reasoning Course at AA/AS level] with a grade of "C" or better; PSY 110, 75 hour nursing assistant course or its equivalent.
Clinical: 0.5 credit hour (22.5 contact hours). Clinical: 4 credits (180 contact hours).
Components: Clinical, Lecture
Attributes: Technical

NSG 195(4)  Course ID:017319
Transition to ADN
Builds upon the basic nursing skills and concepts learned in the LVN/LPN experience. Assists the Practical Nurse to make the beginning transition to the RN role. Strengthens the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry and Quality and Safety Education for Nurses (QSEN). Emphasizes the concepts of nutrition, metabolism, endocrine, elimination, and integumentary. Upon successful completion of all components of the course, the student will be admitted to NSG 229 and will have earned by advanced standing, 16 credit hours in nursing. Pre-requisite: Admission to the Associate Degree Nursing Program and [BIO 137, BIO 139, and Quantitative Reasoning Course at AA/AS Level] with a grade of "C" or better; PSY 110, and ENG 101. Lecture: 3.5 credits (52.5 contact hours). Clinical: 0.5 credit (55.5 contact hours).
Components: Clinical, Lecture
Attributes: Technical

NSG 196(5)  Course ID:006180
Nursing LPN Bridge Course
Builds upon the LVN/LPN experiences in application of core components of nursing. Focuses on nursing care for patients with mental health dysfunctions and patients experiencing acute and/or chronic health dysfunctions. Builds upon the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry. Covers selected content and skills from Nursing One and Nursing Two. Includes the role of the Associate Degree Nurse and application of the core components of nursing practice to patients experience. Pre-requisite: Licensed practical nurse with the board of nursing, BIO 137, BIO 139, Quantitative Reasoning at an AA/AS level or higher (all of these must be a "C" or better and within the last 10 years), PSY 110, ENG 101. Pre-requisite or Co-requisite: HST 121. Lecture: 4 credits (60 contact hours). Clinical: 1 credit (45 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

NSG 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 core components of nursing practice to patients experiencing the dysfunctional health pattern of nutritional-metabolic and elimination. Upon successful completion of all components of the course, the student will be admitted to NSG 220 and will have earned by advanced standing, 15 credit hours in nursing. Pre-requisite: Admission to the Associate Degree Nursing Program and [BIO 137, BIO 139, and Quantitative Reasoning Course at AA/AS Level] with a grade of "C" or better; PSY 110, ENG 101, and Digital Literacy. Pre-requisite or Co-requisite: NSG 215 and NSG 212 with a grade of "C" or better. Lecture: 2.5 credit hours (37.5 contact hours). Clinical: 0.5 credit hour (22.5 contact hours).
Components: Clinical, Lecture
Attributes: Technical

NSG 199(2)  Course ID:005905
Accelerated Transition: PN-A.D.N Bridge
Provides an accelerated course for the LPN/LVN who demonstrates through competency assessment the ability to build upon previous learning and experience. Focuses on the beginning transition to the RN role, the acquisition of essential skills and the development of critical thinking, emphasizes the core components of nutrition, metabolism, endocrine, elimination, and integumentary. Strengthens the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of Inquiry and Quality (QSEN). Upon successful completion of all components of the course the student will be admitted to NSG 220 and will have earned by advanced standing, a total of 16 credit hours in nursing. Pre-requisite: Admission to the Associate Degree Nursing Program and BIO 137, BIO 139 and Quantitative Reasoning Course at AA/AS Level with a grade of "C" or better, PSY 110, ENG 101, and a passing score on a national normed PNX to RN mobility examination. Pre-requisite: NSG 212 with a grade of "C" or better. Lecture: 1.5 credits (22.5 contact hours). Clinical: 0.5 credit hour (22.5 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Technical

NSG 206(9)  Course ID:006181
Nursing Two
Includes the application of the core components of nursing to patients experiencing alterations in health. Focuses on nursing care for patients with mental health dysfunctions and patients experiencing acute and/or chronic health dysfunctions. Builds upon the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry. Pre-requisite: NSG 106 with a grade of "C" or better. Pre-requisite or Co-requisite: HST 121. Lecture: 5 credits (75 contact hours). Clinical: 4 credits (180 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Technical

NSG 210(6)  Course ID:005906
Medical Surgical Nursing I
Focuses on the application of the core components of nursing to adult patients experiencing dysfunctional health patterns. Emphasizes the care of patients with nutritional-metabolic and elimination dysfunctional health patterns. Pre-requisite: NSG 101 and BIO 139 with a grade of "C" or better. Pre-requisite or Co-requisite: NSG 212 and NSG 215 with a grade of "C" or better and ENG 101. Lecture: 3 credits (45 contact hours). Clinical: 3 credits (135 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Technical

NSG 211(3)  Course ID:005908
Maternal Newborn Nursing
Focuses on the application of the core components of nursing practice to the care of childbearing families. Illustrates the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of Inquiry and Quality and Safety Education for Nurses (QSEN). Pre-requisite: NSG 101 and BIO 139 with a grade of "C" or better. Pre-requisite or Co-requisite: NSG 219 and NSG 221 with a grade of "C" or higher, and ENG 101. Lecture: 2 credits (30 contact hours). Clinical: 1 credit (45 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Technical

NSG 212(3)  Course ID:005909
Behavioral Health Nursing
Focuses on the application of the core components of nursing practice to adult patients experiencing actual or potential alterations in mental health. Strengthens the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of Inquiry and Quality and Safety Education for Nurses (QSEN). Pre-requisite: NSG 101 and BIO 139 with a grade of "C" or higher. Pre-requisite or Co-requisite: NSG 219 with a grade of "C" or higher, and ENG 101. Lecture: 2 credits (30 contact hours). Clinical: 1 credit (45 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Technical

NSG 215(3)  Course ID:005910
Pediatric Nursing
Focuses on the application of the core components of nursing practice to the care of the child and family. Validates the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of Inquiry and Quality and Safety Education for Nurses (QSEN). (Unsuccessful completion of NSG 215 will require mandatory withdrawal from NSG 239, 201 KAR 20:320). Pre-requisite: NSG 229 and NSG 211 and BIO 225 with a grade of "C" or better. Co-requisite: NSG 229 and NSG 211 and BIO 225 with a grade of "C" or better. Pre-requisite or Co-requisite: Heritage/Humanities. Lecture: 2 credits (30 contact hours). Clinical: 1 credit (45 contact hours).
Components: Clinical, Laboratory, Lecture
Attributes: Technical

NSG 215(1)  Course ID:005911
Pharmacology I
Focuses on common drugs, their classification and effects on functional and dysfunctional health patterns (value/belief, restorative, health perception/health management, nutritional/metabolic and elimination health patterns). Emphasizes nursing responsibility, accountability, and application of the nursing process regarding drug therapy. Pre-requisite: NSG 101 and BIO 139 with a grade of "C" or higher. Pre-requisite or Co-requisite: NSG 210 and NSG 212 with a grade of "C" or higher, and ENG 10. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical

NSG 219(7)  Course ID:017320
Medical Surgical Nursing I
Focuses on the application of the core components of nursing practice to adult patients experiencing actual or potential alterations in health. Strengthens the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of Inquiry and Quality and Safety Education for Nurses (QSEN). Pre-requisite: Admission to the Associate Degree Nursing Program and [BIO 137, BIO 139, and Quantitative Reasoning Course at AA/AS level] with a grade of "C" or better and ENG 101. Lecture: 4 credits (60 contact hours). Clinical: 3 credits (135 contact hours).
Components: Clinical, Lecture
Attributes: 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 212 and NSG 215, with a grade of "C" or higher and ENG 101. Pre-requisite or Co-requisite: NSG 211 and BIO 225 with a grade of "C" or higher. Lecture: 3 credits (45 contact hours).
Components: Clinical, Lecture
Attributes: Technical

NSG 225(1)  Course ID:005913
Pharmacology II
Focuses on common drugs, their classification and effects on functional and dysfunctional health patterns (activity-exercise, coping/stress/tolerance, role/relationship, altered self-perception/self-concept, and cognitive perception). Emphasizes nursing responsibility, accountability and application of the nursing process regarding drug therapy. (Unsuccessful completion of NSG 225 will require mandatory withdrawal from NSG 239, 201 KAR 20:320). Pre-requisite: NSG 220 and NSG 211 and BIO 225 with a grade of "C" or better. Pre-requisite or Co-requisite: NSG 230 or Consent of Instructor. Pre-requisite or Co-Requisite: NSG 213 and Heritage/Humanities. Lecture: 1.0 credit (15 contact hours).
Components: Lecture
Attributes: Technical
NSG 229(7)  
Course ID: 017321  
Medical Surgical Nursing II  
Focuses on the application of the core components of nursing practice to adult patients experiencing actual or the potential for alterations in health. Illustrates the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry and Quality and Safety Education for Nurses (QSEN). Emphasizes the concepts of oxygenation, circulation, perfusion, and activity/exercise. Pre-requisite: NSG 219 and NSG 212 with a grade of “C” or higher and ENG 101. Pre-requisite or Co-requisite: NSG 211 and BIO 225 with a grade of “C” or higher. Lecture: 4 credits (60 contact hours). Clinical: 3 credits (135 contact hours).  
Components: Clinical, Laboratory, Lecture  
Attributes: Technical

NSG 230(6)  
Course ID: 005914  
Medical/Surgical Nursing III  
Focuses on the application of the core components of nursing to adult patients experiencing dysfunctional health patterns. Emphasizes the care of patients with cognitive/perceptual, altered self perception/self concept, management of patients with dysfunctional health patterns: neurological, eyes/ears, immune/cancer, multiple systems organ failure, and disaster planning. Role transition is addressed and emphasizes leadership, management of care, skill development and professionalism. NSG 230 is the capstone course and must be successfully completed in the final semester of the associate degree nursing program enrollment. (201 KAR 20: 320). Pre-requisite: NSG 220 and NSG 211 and BIO 225 with a grade of “C” or better. Pre-requisite or Co-requisite: NSG 213, NSG 225, and Heritage/Humanities. Lecture: 3.0 credits (45 contact hours); Clinical: 3.0 credits (135 contact hours).  
Components: Clinical, Laboratory, Lecture  
Attributes: Technical

OST 220(3)  
Course ID: 006184  
Nursing Three  
Includes application of the core components of nursing to the care of childbearing and child-rearing families experiencing functional and dysfunctional alterations in health. Applies the four competencies of nursing practice including human flourishing, nursing judgment, professional identity, and spirit of inquiry. Pre-requisite: NSG 206 OR NSG 196 with a grade of “C” or better. Pre-requisite or Co-requisite: BIO 225 (within 10 years) with a grade of “C” or better. Lecture: 5 credits (75 contact hours). Clinical: 4 credits (180 contact hours).  
Components: Clinical, Laboratory, Lecture  
Attributes: Course Also Offered in Modules, Technical

OST 246(9)  
Course ID: 006185  
Nursing Four  
Emphasizes the development of the nurse as a provider of care, manager of care, and member of the nursing profession. Provides for the application of critical thinking skills in the care of diverse patients/families across the lifespan with actual or potential alteration in health due to complex acute and chronic health problems. Includes an integrated practicum with an emphasis on leadership, management, clinical judgment, collaboration, knowledge, skills, and professional values within the legal/ethical framework to facilitate the transition of the student to Registered Nurse practice. Pre-requisite: NSG 236 with a grade of “C” or better. Pre-requisite or Co-requisite: Heritage/Humanities/Foreign Language. Lecture: 5.0 credits (75 contact hours). Laboratory/Clinical: 4.0 credits (180 contact hours).  
Components: Clinical, Laboratory, Lecture  
Attributes: Course Also Offered in Modules, Technical

NSG 299 (1 - 4)  
Course ID: 000531  
Selected Topics in Nursing: (Topic)  
Various nursing topics, issues, and trends will be addressed. Topics may vary from semester to semester at the discretion of the instructors; courses may be repeated with different topics to a maximum of six credit hours. Lecture: Varies by topic; Laboratory: Varies by topic. Pre-requisite: Consent of instructor.  
Components: Laboratory, Lecture  
Attributes: Technical

OST 100(1)  
Course ID: 003768  
Keyboarding  
Develops skill operating a keyboard by touch. Lab: 1.0 credit (45 contact hours).  
Components: Laboratory  
Attributes: Technical

OST 101(3)  
Course ID: 004926  
Keyboarding & Intro to Document Formatting  
Develops skill in operating a keyboard by touch and to develop an introductory level of skill producing standard business documents using a word processing program with speed and accuracy. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

OST 105(3)  
Course ID: 003769  
Introduction to Information Systems  
Introduces students to computer concepts and terminology related to operating system, file management and cloud computing. Teaches basic competencies in searching, locating, and evaluating information on the Internet, using email and other online tools, and demonstrating responsible and ethical online and offline behavior. Teaches beginning skills in word processing electronic spreadsheets, presentations, databases and integration as well as how to keep up with emerging technologies and use computer skills to enhance quality of life and employability. Pre-requisite: RDG 020 or consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: 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, vocabulary, spelling, word and number usage, and proofreading rules. Lecture: 3 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

OST 109(3)  
Course ID: 004520  
Legal Terminology  
Introduces the judicial system (discovery, trial, and appellate processes), civil law, criminal law, legal terminology and legal citations commonly used in the legal field. Includes terms and how to use them in legal context. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

OST 110(3)  
Course ID: 003770  
Instructor Consent Required Word Processing Applications  
Provides experience in word processing including the mastery of touch typing with speed and accuracy using industry standard software. Pre-requisite: RDG 020 and Consent of Instructor (OST 101 equivalent skills). Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Course Also Offered in Modules, Technical

OST 112(3)  
Course ID: 004428  
Financial Management  
Designed to teach students fundamental principles and concepts including: financial markets, future trends, 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  
Attributes: Technical

OST 150(5)  
Course ID: 003771  
Transcription and Office Technology  
Produce usable business documents from machine dictation using word processing software, with emphasis on spelling, punctuation, and grammar. Proofreading and editing applications stress the importance of accuracy and quality of document creation and production. 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: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

OST 210(3)  
Course ID: 003773  
Advanced Word Processing Applications  
Uses advanced features of a current word processing software to format and produce documents utilized in an office. Pre-requisite: OST 110. Lecture: 3.0 credit hours. (45 contact hours).  
Components: Lecture  
Attributes: Technical

OST 215(3)  
Course ID: 003774  
Office Procedures  
Studies the practices and procedures of current office concepts with emphasis given to the electronic office environment including: job application procedures, human relations in the office, business ethics, decision-making skills, travel and meeting arrangements, time and stress management, incoming/outgoing mail processes, and telephone procedures. Pre-requisite Or Co-requisite: OST 110. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

OST 220(3)  
Course ID: 003775  
Administrative Office Simulations  
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/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 225(3)  
Course ID: 003776  
Introduction to Desktop Publishing  
Uses desktop publishing software to design and produce high resolution publications such as flyers, brochures, business forms, and newsletters. Introduces basic design techniques, type and graphics layout, and related terminology. Pre-requisite: (OST 105 and OST 110) or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

OST 235(3)  
Course ID: 003777  
Business Communications Technology  
Prepares students to communicate electronically, including the design, presentation, and quality of a variety of written and oral presentations. Emphasis will be on the rules of good writing, proper grammar, and the correct use of business terminology. Pre-requisite: ENG 101 or the equivalent. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical

OST 240(3)  
Course ID: 003778  
Advanced Microsoft Applications  
Expands computer skills through the use of spreadsheet, database management, word processing, and presentation software for the integration of information. Lecture: 3.0 credits (45 contact hours).  
Components: Lecture  
Attributes: Technical
Advanced Desktop Publishing

OST 250(3)
Course ID:004514

Provides advanced techniques in electronic publishing design, layout, composition and paste-up. Pre-requisite: OST 225 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

OST 255(3)
Course ID:004425

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

Office Management

OST 273(3)
Course ID:003779

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

Administrative Office Technology Internship

OST 295(1 - 3)
Course ID:003780

Provides the opportunity to apply acquired occupational skills in a realistic setting, enhancing the transition from school to work. Requires approval of OST advisor. Pre-requisite: OST 210, OST 215, and OST 240, or consent of instructor. Laboratory: 1.0 - 3.0 credits (45-135 contact hours).

Components: Laboratory
Attributes: Technical

Word Processing Functions

OST 1101(1)
Course ID:016303

Provides basics of word processing including the information processing cycle, using spell check, proofreading and keypad accuracy using industry standard software. Pre-requisite: RDG 020 or Consent of Instructor (OST 101 equivalent skills). Lecture: 1 credit (15 contact hours).

Components: Lecture

OST 1102(1)
Course ID:016304

Provides experience in word processing for keying letters and memos, using industry standard application programs. Pre-requisite: OST 1101 or Consent of Instructor. Lecture: 1 credit (15 contact hours).

Components: Lecture

OST 1103(1)
Course ID:016305

Provides experience in word processing for keying letters and memos, using industry standard software. Pre-requisite: OST 1102 or Consent of Instructor. Lecture: 1 credit (15 contact hours).

Components: Lecture

Advanced Formatting and Tools

OST 2101(1)
Course ID:016306

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 form. Pre-requisite: OST 2102 or Consent of Instructor. Lecture: 1 credit (15 contact hours).

Components: Lecture

OST 2251(1)
Course ID:016309

Desktop Publishing Software

Uses desktop publishing software to design and produce high resolution publications such as flyers, brochures, business forms, and newsletters. Introduces basic design techniques, type and graphics layout, and related terminology. Pre-requisite: (OST 105 and OST 110) or Consent of Instructor. Lecture: 1 credit (15 contact hours).

Components: Lecture

OST 2252(1)
Course ID:016310

Desktop Publishing Design and Features

Uses desktop publishing software to design and produce high resolution publications such as flyers, brochures, business forms, and newsletters. Introduces basic design techniques, type and graphics layout, and related terminology. Lecture: 1 credit (15 contact hours).

Components: Lecture

OST 2751(0.5)
Course ID:005806

Office Management Principles

Includes introductory management principles and techniques for the modern business office. Lecture: 0.5 credits (7.5 contact hours).

Components: Lecture

OST 2752(1)
Course ID:005807

Managing Human Resources in the Office

Includes management principles and techniques and their application to the management of human resources in the modern business office. Pre-requisite: 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:006866

Introduction to Occupational Therapy

Introduces the profession of occupational therapy by examination of history, philosophy, and theoretical foundations. Examines roles of Occupational Therapist (OT) and Occupational Therapy Assistant (OTA) with respect to education, credential, employment settings, and ethics. Outlines usage of Occupational Therapy Practice Framework, medical terminology, group dynamics, and communication skills. Pre-requisite: Completion of ENG 101 with a "C" or better and consent of instructor. Lecture/Lab: 3.0 credits (90 contact hours).

Components: Lecture
Attributes: Technical

OTA 111(2)
Course ID:006869

Applied Anatomy and Kinesiology

Studies the musculoskeletal and nervous systems of the human body in relationship to movement and function. Emphasizes the upper extremity and shoulder girdle. Focuses on innervation of muscles, muscle grouping for function, and common problems seen when these systems are affected by disease/injury. Introduces the analysis of movement in specific life tasks. Uses the goniometer for joint measurement, manual muscle testing for strength, and promotes familiarity with the terms and techniques used in assessing motor function. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical

OTA 115(2)
Course ID:006881

Skills and Interventions I

Develops the basic foundational principles/applications of occupational therapy, such as the concept of basic needs, therapeutic interventions, techniques, applications, analysis, safety, and adaptive skill development as the basis for an individual's occupational performance. Provides explanation and introductory lab practice of the occupational therapy assistant elements. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical

OTA 116(2)
Course ID:006882

Media Principles and Procedures I

Develops skills in planning, implementing and evaluating occupational therapy for individuals experiencing deficits in occupational performance through the analysis of human occupation and subsequent methods of 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 ethnic, cultural, and socio-economic factors that impact individuals. Provides opportunities for students to develop skills in activity analysis, functional mobility, therapeutic crafts, and modalities. Pre-requisite: Admission to OTA program and permission of instructor. Lab: 2.0 credits (90 contact hours).

Components: Laboratory
Attributes: Technical

OTA 125(2)
Course ID:006883

Assistive Technology and Documentation

Presents various methods of documentation used in occupational therapy settings for evaluation, intervention, justification of payment for equipment, discharge, and other client records, and requirements of third party payers. Explores assistive technology to facilitate knowledge in a broad range of devices, services, strategies, and practices conceived and applied to decrease the problems faced by individuals. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (60 contact hours).

Components: Lecture
Attributes: Technical
OTA 126(1)  Course ID: 006870
Level IA Fieldwork
Provides the opportunity to observe and participate in various settings appropriate to occupational therapy service but not necessarily within a therapy department or under an occupational therapy professional. Provides opportunities to develop entry-level skills in the occupational therapy process with hands-on interaction as appropriate. Encourages development of professional behaviors and effective communication skills. Pre-requisite: Admission to OTA program and permission of instructor. Clinical: 1.0 credit (60 contact hours).
Components: Clinical
Attributes: Technical
OTA 136(4)  Course ID: 006871
Physical Dysfunction
Includes study of physical conditions commonly seen by Occupational Therapy, including diagnoses, instruction on treatment, and application of treatment. Introduces practice models to guide treatment applications, including procedures for multiple conditions in physical dysfunction. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 4.0 credits (120 contact hours).
Components: Lecture
Attributes: Technical
OTA 146(3)  Course ID: 006872
Occupational Therapy in Mental Health
Presents typical and dysfunctional behavior using the occupational therapy process as it pertains to mental health practice settings. Explores alternative methods and settings for mental health practice. Covers training and practice in interpersonal skills necessary for effective communication with clients, families, significant others, other health care professionals, and the public. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 3.0 credits (75 contact hours).
Components: Lecture
Attributes: Technical
OTA 206(2)  Course ID: 006873
Community Practice
Explores the current and emerging practice areas of occupational therapy in the immediate and future needs. Focuses on occupation-based practice, holism, wellness, and prevention models applied throughout the lifespan. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (60 contacts).
Components: Lecture
Attributes: Technical
OTA 216(2)  Course ID: 006868
Media Principles and Procedures II
Provides students the opportunity to apply skills in evaluating and planning occupational therapy for individuals experiencing deficits in occupational performance in a safe and efficient manner. Develops assessment skills in order to plan appropriate treatments applicable to deficits in occupational performance, including fabrication of orthotics and adaptive equipment and techniques. Develops communication skills necessary for documentation and patient interaction. Provides opportunities for students to develop skills in assessment, adaptations, orthotics and appropriate treatment with awareness of ethnic, cultural, and socio-economic factors that impact individuals. Pre-requisite: Admission to OTA program and permission of instructor. Lab: 2.0 credits (90 contact hours).
Components: Laboratory
Attributes: Technical
OTA 225(2)  Course ID: 006865
Skills and Interventions II
Incorporates analysis, instruction and implementation of occupational therapy treatment techniques. Provides opportunities to apply theoretical concepts in practical situations, involving higher-level activities of daily living, comprehensive analysis, purposeful activity, modalities and neurologic-re-education. Applies implementation skills necessary for Level II fieldwork and to work as entry-level occupational therapy assistant. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 2.0 credits (60 contact hours).
Components: Lecture
Attributes: Technical
OTA 226(1)  Course ID: 006874
Level IB Fieldwork
Provides the opportunity to observe and participate in various settings appropriate to occupational therapy service but not necessarily within a therapy department or under an occupational therapy professional. Provides opportunities to develop intermediate skills in the occupational therapy process. Provides opportunities for students to advance therapeutic skills and to generalize skills and knowledge from the classroom to the practice setting. Focuses professional behaviors and communication skills established in previous occupational therapy classes. Pre-requisite: Admission to OTA program and permission of instructor. Clinical: 1.0 credit (60 contact hours).
Components: Clinical
Attributes: Technical
OTA 236(2)  Course ID: 006875
Professional Transitions and Management
Explores professional issues related to the transition from student to practitioner, the relationships the occupational therapy assistant (OTA) has with other health care professionals, identification of licensure and certification requirements, professional memberships, job search strategies, methods of reimbursement, and formulation of professional resources to become a successful entry level therapist. Pre-requisite: Admission to OTA program and permission of instructor. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical
OTA 246(3)  Course ID: 006876
Pediatric Issues in Occupational Therapy
Examines occupational therapy in the pediatric population. Investigates how physical, emotional, and cognitive processes begin, change, and develop from birth through adolescence. Addresses concepts of occupation in pediatrics. Encourages students to view treatments holistically while learning normal developmental milestones and various disabilities. Pre-requisite: Admission to OTA program and permission of instructor. Lecture/Lab: 3.0 credits (75 contact hours).
Components: Lecture
Attributes: Technical
OTA 256(2)  Course ID: 006877
Elder Issues in Occupational Therapy
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: 007040
Level IIA Fieldwork
Provides opportunity to function in various clinical settings under supervision of experienced occupational therapy practitioner. Promotes collaboration with the Occupational Therapist in planning/implementation of treatment programs with clients with a variety of diagnoses and ages. Strengthens complex skills, including critical thinking, required for entry-level of practice through the final of two successive fieldwork rotations in unique healthcare settings/institutions. Pre-requisite: Admission to the Occupational Therapy Assistant Program or permission of instructor. Practicum: 5.0 credits (300 contact hours).
Components: Practicum
OTA 277(5)  Course ID: 007411
Level IIB Fieldwork
Provides opportunity to function in various clinical settings under supervision of experienced occupational therapy practitioner. Promotes collaboration with the Occupational Therapist in planning/implementation of treatment programs with clients with a variety of diagnoses and ages. Strengthens complex skills, including critical thinking, required for entry-level of practice through the final of two successive fieldwork rotations in unique healthcare settings/institutions. Pre-requisite: Admission to the Occupational Therapy Assistant Program or permission of instructor. Practicum: 5.0 credits (300 contact hours).
Components: Practicum
OTA 286(2)  Course ID: 006880
Clinical Seminar
Provides students an opportunity to share information from their clinical site with both the academic instructor and their classmates. Emphasizes application of information learned to other situations. Prepares students for National Board for Certification in Occupational Therapy (NBCOT) certification examination. Pre-requisite: Admission to OTA program and permission of instructor. Co-requisite: OTA 266 OR OTA 276. Lecture: 2.0 credits (30 contact hours).
Components: Lecture
Attributes: Technical
PGL 111(3)  Course ID: 007051
Legal Systems and Terminology
Provides an overview of major principles and functions of the state and federal legal systems, introduces various legal fields for professional opportunities, presents legal vocabulary, gives an overview of different areas of law, and presents ethics. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading and writing OR completion of Transitional reading and writing courses. Co-requisite: PGL 112. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
PGL 112(3)  Course ID: 007052
Legal Research
Introduces the basic sources of law and methods of legal research, including ethics. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading and writing OR completion of Transitional reading and writing courses. Co-requisite: PGL 111. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
PGL 113(3)  Course ID: 007053
Law Office Management
Provides practical application of daily legal office skills needed in the legal field, professional enrichment presentations, history of the profession, professional ethics through fact analysis, and an overview of law office management. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading and writing OR completion of Transitional reading and writing courses. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
PGL 211(3)  Course ID: 007054
Family Law
Examines the areas of law pertaining to domestic relations, emphasizing ethics. Pre-requisite: PGL 111 and PGL 112. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
disqualification, civil and criminal liability, and what it
discipline an ethical lapse may trigger, such as sanctions,
professional must report misconduct. Explores the types of
and rules, along with the essentials of how and why a legal
Ethics
PGL 233(3) Course ID:007056
Civil Litigation I
Presents the litigation process and emphasizes the
structure of the court systems. Includes gathering
information and evidence, summarizing and arranging
materials, maintaining docket and file control, developing
a litigation case, and interviewing clients and witnesses,
using ethical standards. Pre-requisite: PGL 111 and PGL
112. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
PGL 213(3) Course ID:007056
Civil Litigation I
Presents the litigation process and emphasizes the
structure of the court systems. Includes gathering
information and evidence, summarizing and arranging
materials, maintaining docket and file control, developing
a litigation case, and interviewing clients and witnesses,
using ethical standards. Pre-requisite: PGL 111 and PGL
112. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
PGL 214(3) Course ID:007057
Real Property I
Introduces real property law including ownership,
transfer of property, liens and encumbrances, and the various
types of deeds. Pre-requisite: PGL 111 and PGL 112. Lecture:
3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
PGL 221(3) Course ID:007058
Wills and Estates
Introduces the laws of inheritance and estates, basic
concepts of estates and wills, probate procedures, and
preparation of documents while emphasizing ethics. Pre-
requisite: PGL 111 and PGL 112. Lecture: 3.0 credits (45
contact hours).
Components: Lecture
Attributes: Technical
PGL 223(3) Course ID:007059
Civil Litigation II
Continues the study of the litigation process from discovery
through appeal. Emphasizes collecting and organizing
discovery materials and demonstrating knowledge of the
limits placed on discovery by the federal and state rules of
civil procedure. Includes the trial and appeal phases of
litigation, with emphasis on trial preparation and appellate
procedure. Pre-requisite: PGL 213. Lecture: 3.0 credits (45
contact hours).
Components: Lecture
Attributes: Technical
PGL 224(3) Course ID:007060
Real Property II
Examines legal documents related to real property as
recorded in the clerk’s office, the tax assessor’s office, and
the circuit clerk’s office. Includes compiling a title abstract
and constructing an assignment to prepare a real estate
file from transaction through closing and post-closing,
implementing ethics. Pre-requisite: PGL 214. Lecture: 3.0
credits (45 contact hours).
Components: Lecture
Attributes: Technical
PGL 231(3) Course ID:007061
Torts
Provides instruction in the area of law that deals with
civil wrongs and injuries, including intentional wrongs,
negligence, and strict liability. Concentrates on the
elements of a tort, type of tort, damages, ethics, and
remedies. Pre-requisite: PGL 111 and PGL 112. Lecture:
3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical
PGL 233(3) Course ID:007062
Ethics
Provides an overview of the various sources of ethics law
and rules, along with the essentials of how and why a legal
professional must report misconduct. Explores the types of
discipline an ethical lapse may trigger, such as sanctions,
disqualification, civil and criminal liability, and what it
means to be engaged in the “unauthorized practice of law.”
Pre-requisite: PGL 111 and PGL 112. Lecture: 3.0 credits
(45 contact hours).
Components: Lecture
Attributes: Technical
PGY 206(3) Course ID:000846
Elementary Physiology
An introductory survey course in basic human physiology.
Pre-requisite: One semester of college biology. Lecture: 3.0
credits (45 contact hours).
Components: Lecture
Attributes: University Course (University of Kentucky)
PGA 200(3) Course ID:001932
Preparation for Pharmacy Technicians
Prepares the student as an integral member of the
pharmacy team by learning about the duties of pharmacy
technicians in a variety of
planning. Pre-requisite: MAT 65 or equivalent. Co-
requisite: PHA 145, PHA 136, PHA 150. Lectures: 4
(60 contact hours). Lab: 2 credits (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
PHA 110(6) Course ID:004159
Pharmacy Procedures and Skills
Introduces the field of pharmacy technology in various
pharmacy settings. Includes content on legal requirements
and responsibilities of pharmacy technician as they assist
the pharmacist. Topics discussed will include professional
communication and customer service, Patient Care
Processes, safety issues, and the basic skills of a pharmacy
technician. Students will use a variety of interpersonal
skills and self-management skills to produce a final product from
a medication order, or prescription, following safe handling
and preparation guidelines as set forth by governmental
Co-requisite: PHA 200, PHA 236, PHA 240. Lab: 1 credit
(45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
PHA 205(1) Course ID:001932
Admixtures Preparations
Provides simulation in aseptic technique and sterile
compounding, including the use of equipment, application
of laws and standards relating to sterile compounding, and
preparation of sterile products such as IVs, chemotherapy,
immunizations, and parenteral nutrition. Pre-requisite:
PHA 110 and PHA 145 and PHA 136 and PHA 150. Co-
requisite: PHA 200, PHA 236, PHA 240. Lecture: 1
credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical
PHA 236(3) Course ID:0017308
Pharmacology 2
Expands upon knowledge introduced in PHA 136.
Introduces hospital-specific medications, their dosage
forms, adverse effects and preparation instructions.
Examines the process of clinical trials and investigational
drugs. Enhances knowledge of drug safety, including
pediatric and geriatric populations. Pre-requisite: PHA 136.
Co-requisite: PHA 200, PHA 205. Lecture: 3 credits (45
contact hours).
Components: Lecture
Attributes: Technical
PHA 240(3) Course ID:0017309
Pharmacy Technician Career Planning
Prepare pharmacy technician students to take the
Pharmacy Technician Certification Board exam. Review
will focus on individual knowledge deficits. Preparation for
interviews and career planning. Pre-requisite: PHA 136,
PHA 110, PHA 145, PHA 150. Co-requisite: PHA 200, PHA
205, PHA 236, PHA 250. Lecture: 3 credits (45 contact
hours).
Components: Lecture
Attributes: Technical
PHA 250(1 - 8) Course ID:001936
Instructor Consent Required
Pharmacy Experience
Provides work experience in the pharmacy setting to
enhance skills required to reach occupational goals for the
pharmacy technician. Pre-requisite: Consent of Instructor.
Clinical: 1.0 - 8.0 credits (60-480 contact hours).
Components: Clinical
Attributes: Technical
PHB 100(6) Course ID:001938
Phlebotomy
Prepares the student as an integral member of the
health-care team to collect blood from patients/donors
in hospitals, blood banks or clinics for analysis or other
medical purposes. Includes standard precautions, record
keeping, and therapeutic communication skills. Lecture/ Lab:
6.0 credits (90 contact hours).
Components: Lecture
Attributes: Technical
PHA 200(3) Course ID:000846
Admixtures Preparations
Provides simulation in aseptic technique and sterile
compounding, including the use of equipment, application
of laws and standards relating to sterile compounding, and
preparation of sterile products such as IVs, chemotherapy,
immunizations, and parenteral nutrition. Pre-requisite:
PHA 110 and PHA 145 and PHA 136 and PHA 150. Co-
requisite: PHA 200, PHA 236, PHA 240. Lab: 1 credit
(45 contact hours).
Components: Laboratory, 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 120(6) Course ID:003809
Fundamentals of Clinical Laboratory Phlebotomy
Fundamental techniques of the skills necessary to
collect blood specimens in the clinical laboratory
appropriate to the phlebotomist are introduced. Included
is a study of medical ethics, medical terminology, anatomy
and physiology of the circulatory system, professional
organizations, communication, record keeping, specimen
collection, chain of custody, laboratory safety, and quality
control. Pre-requisite: CPR Certification, Malpractice
Insurance, Hepatitis, Venelance, PPP, Rubella, and Rubella
blood work results. Lecture: 3 hrs; Laboratory: 9 hrs.
Components: Laboratory, Lecture
Attributes: Technical
Introduces students to the methods of formal deductive reasoning and criticism of actual arguments, the aim being to provide formal proof. Pre-requisite: Math placement scores at or above benchmark OR KCTCS math placement exam recommendation OR Successful completion of transitional math coursework OR Concurrent enrollment in PHI250-S. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: QR - Quantitative Reasoning

PHI 250(S - 1 - 2) Course ID:017296
Co-Requisite Remediation for Symbolic Logic

Components: Lecture
Attributes: Other

PHI 260(3) Course ID:000688
History of Philosophy I: From Greek Beginnings to the Middle Ages
Provides an introductory study of the development of Western philosophy from ancient through late medieval times, including the development of fields such as logic, metaphysics, epistemology, and ethics. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Other, Arts and Humanities

PHI 270(3) Course ID:000497
History of Philosophy II: From the Renaissance to the Present Era
Provides an introductory study of the development of Western philosophy from early modern through contemporary times, including the development of fields such as metaphysics, analytic and continental philosophy, and ethics. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Other, Arts and Humanities

PHI 298(3) Course ID:006969
Special Topics in Philosophy: Topic
Examines special topics in philosophy. Includes, but not limited to, individual philosophers, movements, writings, traditions, and selected eras. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Other

PHI 100(3) Course ID:000894
Introduction to Philosophy: Knowledge and Reality
Introduces students to philosophical studies with emphasis on issues of knowing, reality, and meaning related to human existence. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: AH - Arts and Humanities

PHI 110(3) Course ID:002202
Medical Ethics
Introduces examination and application of major ethical theories to specific moral questions related to health care. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: AH - Arts and Humanities

PHI 120(3) Course ID:000356
Introductory Logic
Covers argumentation, syllogistic and sentential logic. Focuses on the use of formal methods in the construction and criticism of actual arguments, the aim being to inculcate standards of good reasoning, e.g., clarity, consistency, and validity. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: AH - Arts and Humanities

PHI 130(3) Course ID:000354
Ethics
Introduces students to a critical examination of philosophical principles related to moral action and political values. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: AH - Arts and Humanities

PHI 140(3) Course ID:005139
The Ethics of War and Peace
Ethical reasoning and application of ethical theories to moral issues connected to war and peace. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: AH - Arts and Humanities

PHI 150(3) Course ID:000359
Business Ethics
Presents ethical theories and techniques of moral reasoning used to analyze moral issues in business. Applies ethics and reasoning to current issues of management, employees, government, public safety, and the environment. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: AH - Arts and Humanities

PHI 160(3) Course ID:015595
Philosophy Through Pop Culture
Surveys major philosophical themes, such as value, morality, evil, friendship, beauty, God, reality, and the meaning of life, and applies these themes to an examination of how they are represented in several sources of popular culture, including literature, film, art, music, media, and stage. Pre-requisite: ENG 101. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: AH - Arts and Humanities

PHI 170(3) Course ID:016632
Philosophy of Religion
Introduces students to issues in philosophy of religion including defining the concept of God, arguments for and against the existence of God, the relation between faith and reason, the nature of religious experience, the problem of evil, and immortality. Pre-requisite: ENG 101. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Course Equivalents: REL 170
Attributes: AH - Arts and Humanities, Other

PHI 180 Animal and Environmental Ethics (3)
Pre-requisite: ENG 101. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: AH - Arts and Humanities, Other

PHI 200(3) Course ID:016766
Professional Responsibility
Assess the proper role of ethics within different professional settings, examining different professional codes of ethics and approaches to leadership and professionalism. Examine the nature of the professional's client relationship, recurring moral dilemmas, and the role of professionals in society. Develop a professional portfolio and practical professional skills. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: AH - Arts and Humanities

PHI 250(3) Course ID:016844
Symbolic Logic
Introduces students to the methods of formal deductive logic with emphasis upon applications to mathematics, computer science, and/or legal reasoning. Covers the language and rules of formal logic as well as techniques of formal proof. Pre-requisite: Math placement scores at or above benchmark OR KCTCS math placement exam recommendation OR Successful completion of transitional math coursework OR Concurrent enrollment in PHI250-S. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: QR - Quantitative Reasoning

PHI 250(S - 1 - 2) Course ID:017296
Co-Requisite Remediation for Symbolic Logic

Components: Lecture
Attributes: Other

PHI 260(3) Course ID:000688
History of Philosophy I: From Greek Beginnings to the Middle Ages
Provides an introductory study of the development of Western philosophy from ancient through late medieval times, including the development of fields such as logic, metaphysics, epistemology, and ethics. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Other, Arts and Humanities

PHI 270(3) Course ID:000497
History of Philosophy II: From the Renaissance to the Present Era
Provides an introductory study of the development of Western philosophy from early modern through contemporary times, including the development of fields such as metaphysics, analytic and continental philosophy, and ethics. Pre-requisite: ENG 101. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Other, Arts and Humanities

PHI 298(3) Course ID:006969
Special Topics in Philosophy: Topic
Examines special topics in philosophy. Includes, but not limited to, individual philosophers, movements, writings, traditions, and selected eras. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Other

PHI 150(1) Course ID:016636
Theories in Business Ethics
Pre-requisite: ENG 101. Lecture: 1.0 credits (15 contact hours).

Components: Lecture
Attributes: Other

PHI 150(2) Course ID:016637
Applying Business Ethics
Pre-requisite: ENG 101. Lecture: 1.0 credits (15 contact hours).

Components: Lecture
Attributes: Other

PHS UTC Physics
PHS 175(6) Course ID:001941
Applied Physics
This course is a basic study of the principles of physics and mechanics, including motion, force, vectors, work, energy, machines, properties of matter, behavior of fluids, temperature and heat, properties of gases, wave motion, electricity, light, and nuclear physics. Problem solving techniques are stressed. Co-requisite: MAT 126. Lecture: 6 credits (150 contact hours).

Components: Lecture
Attributes: Other
**PHX 150(3)** Course ID:0001944

**Introductory Physics**

A non-calculus approach to the concepts and applications of the physical principles of force, work, rate, resistance, energy, power, force transformers and gas laws is presented in this course. Students are shown by examples, classroom demonstration, and laboratory experiments how these concepts are applied to the translational and rotational mechanical, fluidal, electrical and thermal energy systems. Problem solving techniques and scientific method are stressed throughout this course. Pre-requisite: MAT 116 or MAT 126. Lecture: 3 credits (45 contact hours).

**Components:** Lecture

**Attributes:** Technical

**PHY 151(3)** Course ID:000840

**Introductory Physics I**

Focuses on the conceptual principles of mechanics of solids, liquids, gases, heat, and sound using some algebra. Credit is not given to students who already have credit for PHY 201 or PHY 231. Companion lecture to PHY 161 laboratory. Pre-requisite: KCTCS placement in College Algebra or completion of Intermediate Algebra. Lecture: 3 credits (45 contact hours).

**Components:** Lecture

**Attributes:** SN - Science

**PHY 152(3)** Course ID:000402

**Introductory Physics II**

Focuses on the conceptual principles of electricity, magnetism, optics, atomic, and nuclear physics using some algebra. Credit is not given to students who already have credit for PHY 203 or PHY 232. Companion lecture to PHY 162 laboratory. Pre-requisite: KCTCS placement in College Algebra or completion of Intermediate Algebra. Lecture: 3 credits (45 contact hours).

**Components:** Lecture

**Attributes:** SN - Science

**PHY 160(3)** Course ID:000436

**Physics and Astronomy for Elementary Teachers**

Addresses basic concepts of astronomy and physics appropriate for elementary teachers and is taught with an emphasis on inquiry-based, laboratory activities. Topics include the basics of the motion of objects, astronomy by sight, electrical circuits, magnetism and the behavior of light. Companion course to GLY 160. Pre-requisite: GLY 160. Lecture: 1 credit hour (15 contact hours). Lab: 2 credit hours (75 contact hours).

**Components:** Laboratory, Lecture

**Attributes:** SN - Science Laboratory, SN - Science

**PHY 161(1)** Course ID:000471

**Introductory Physics I Laboratory**

Investigates concepts introduced in PHY 151 through experiments in classical mechanics and thermal physics. Pre-requisite or concurrent: PHY 151. Lab: 1 credit hour (30 contact hours).

**Components:** Laboratory

**Attributes:** SL - Science Laboratory

**PHY 162(1)** Course ID:000475

**Introductory Physics II Laboratory**

Investigates concepts introduced in PHY 152 through experiments in electricity, magnetism, light, atoms, and nuclei. Pre-requisite or concurrent: PHY 152. Laboratory: 1 credit (15 contact hours). Lab: 1 credit hour (30 contact hours).

**Components:** Laboratory

**Attributes:** SL - Science Laboratory

**PHY 171(4)** Course ID:000156

**Applied Physics**

Surveys mechanics, heat, sound, electricity, magnetism, light, and modern physics as applied to practical systems. Pre-requisite: (MAT 085 or (MAT 116 or greater) or Equivalent math placement score) or consent of instructor. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credits (30 contact hours).

**Components:** Laboratory, Lecture

**Attributes:** SL - Science Laboratory, SN - Science, Course Also Offered in Modules

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**PHY 172(2)** Course ID:0004817

**Physics for Health Sciences**

Introduces the basic concepts of motion, forces, work, energy, power and waves through experimentation, as applied in electricity and magnetism, optics, atomic, and nuclear physics. Pre-requisite: KCTCS placement in College Algebra or completion of Intermediate Algebra. Lab: 2 credit hours (60 contact hours).

**Components:** Laboratory

**Attributes:** SL - Science Laboratory

**PHY 201(4)** Course ID:000911

**College Physics I**

Focuses on the mechanics of matter as governed by Newton’s Laws; by the conservation laws of energy, momentum, and angular momentum; and thermal processes using algebra and basic trigonometry. Companion lecture to PHY 202 laboratory. Credit is not given to students who have already completed PHY 231. Pre-requisite: (MAT 150 or higher) or MA109 or an ACT math score of 25 or higher. Lecture: 3 credit hours (45 contact hours). Discussion: 1 credit hour (15 contact hours).

**Components:** Discussion, Lecture

**Attributes:** SN - Science

**PHY 202(1)** Course ID:000627

**College Physics I Laboratory**

Enhances concepts introduced in PHY 201 through experiments in classical mechanics and thermal physics. Pre-requisite Or Co-requisite: PHY201 or equivalent. Laboratory: 1.0 credit (30 contact hours).

**Components:** Laboratory

**Attributes:** SL - Science Laboratory

**PHY 203(4)** Course ID:000524

**College Physics II**

Focuses on electromagnetic phenomena, circuits, optics and an introduction to modern physics using algebra and basic trigonometry. Companion lecture to PHY 204 laboratory. Credit is not given to students who have already completed PHY 232. Pre-requisite: PHY 201 or equivalent. Lecture: 3 credit hours (45 contact hours). Discussion: 1 credit hour (15 contact hours).

**Components:** Discussion, Lecture

**Attributes:** SN - Science

**PHY 204(1)** Course ID:000192

**College Physics II Laboratory**

Enhances concepts introduced in PHY 203 through experiments in electricity, magnetism, and optics. Pre-requisite Or Co-requisite: PHY203 or equivalent. Laboratory: 1.0 credit hour (30 contact hours).

**Components:** Laboratory

**Attributes:** SN - Science Laboratory

**PHY 231(4)** Course ID:000290

**General University Physics I**

Focuses on the mechanics of matter as governed by Newton’s Laws and by the conservation laws of energy, linear momentum, and angular momentum using calculus and trigonometry. Companion lecture to PHY 241 laboratory. Pre-requisite Or Co-requisite: MAT185 or MA 114 or equivalent. Lecture: 3 credit hours (45 contact hours). Discussion: 1 credit hour (15 contact hours).

**Components:** Discussion, Lecture

**Attributes:** SN - Science

**PHY 232(4)** Course ID:000625

**General University Physics II**

Focuses on electromagnetic phenomena, circuits, and optical physics. Pre-requisite: Companion lecture to PHY 242 laboratory. Pre-requisite: PHY 231. Pre-requisite Or Co-requisite: MAT 275 or MA 213 or equivalent. Lecture: 3 credit hours (45 contact hours). Discussion: 1 credit hour (15 contact hours).

**Components:** Discussion, Lecture

**Attributes:** SN - Science

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**PHY 241(1)** Course ID:000638

**General University Physics I Laboratory**

Enhances concepts introduced in PHY 231 through a complement of experiments relating to motion, Newton’s laws, rotation, and energy conservation principles. Pre-requisite Or Co-requisite: PHY 231. Laboratory: 1 credit hour (30 contact hours).

**Components:** Laboratory

**Attributes:** SL - Science Laboratory

**PHY 242(1)** Course ID:000642

**General University Physics II Laboratory**

Enhances concepts introduced in PHY 232 through a complement of experiments relating to electromagnetic phenomena, circuits, and optics. Pre-requisite Or Co-requisite: PHY 232. Laboratory: 1 credit hour (30 contact hours).

**Components:** Laboratory

**Attributes:** SL - Science Laboratory

**PHY 1171(0.5)** Course ID:006109

**Motion & Newton’s Laws**

Surveys selected topics in velocity, acceleration, and force. Pre-requisite: (MA 108 or (MT 115 or greater) or Equivalent math placement score) or consent of instructor. Lecture/ Lab: 0.5 credit (9.37 contact hours).

**Components:** Lecture

**PHY 1712(0.5)** Course ID:006110

**Work, Energy, Power, and Momentum**

Surveys selected topics in work, energy, power, and momentum. Pre-requisite: (MA 108 or (MT 115 or greater) or Equivalent math placement score) or consent of instructor. Lecture/Lab: 0.5 credit (9.38 contact hours).

**Components:** Lecture

**PHY 1713(0.5)** Course ID:006111

**Fluid Dynamics**

Surveys selected topics in fluid dynamics. Pre-requisite: (MA 108 or (MT 115 or greater) or Equivalent math placement score) or consent of instructor. Lecture/Lab: 0.5 credit (9.38 contact hours).

**Components:** Lecture

**PHY 1714(0.5)** Course ID:006112

**Thermodynamics**

Surveys selected topics in thermodynamics. Pre-requisite: (MA 108 or (MT 115 or greater) or Equivalent math placement score) or consent of instructor. Lecture/Lab: 0.5 credit (9.38 contact hours).

**Components:** Lecture

**PHY 1715(0.5)** Course ID:006113

**Electricity and Magnetism**

Surveys selected topics in electricity and magnetism. Pre-requisite: (MA 108 or (MT 115 or greater) or Equivalent math placement score) or consent of instructor. Lecture/Lab: 0.5 credit (9.38 contact hours).

**Components:** Lecture

**PHY 1716(0.5)** Course ID:006114

**Wave Motion, Sound, and Light**

Includes selected topics in wave mechanics, sound, and optics. Pre-requisite: (MA 108 or (MT 115 or greater) or Equivalent math placement score) or consent of instructor. Lecture/Lab: 0.5 credit (9.38 contact hours).

**Components:** Lecture

**PHY 1717(0.5)** Course ID:006115

**Modern and Nuclear Physics**

Surveys selected topics in atomic, nuclear, and modern physics. Pre-requisite: (MA 108 or (MT 115 or greater) or Equivalent math placement score) or consent of instructor. Lecture/Lab: 0.5 credit (9.38 contact hours).

**Components:** Lecture

**PHY 1718(0.5)** Course ID:006116

**Integrated Physics Concepts**

Surveys selected topics in applied physics. Pre-requisite: PHY 1711 and PHY 1712 and PHY 1713 and PHY 1714 and PHY 1716 and PHY 1717 and Consent of Instructor. Lecture/Lab: 0.5 credit (9.38 contact hours).

**Components:** Lecture
Basic Theory of Plumbing
Provides a history of the plumbing trade and basic principles of the trade. Lecture: 2 credits (45 contact hours).

Components: Lecture
Attributes: Technical

PLB 150(3) Course ID:001945
Plumbing, Introduction to the Trade
Introduces the origin and basic principles of the plumbing industry. Includes the orientation of methods associated with the plumbing industry. Lecture: 3 credits (45 contact hours).

Components: Laboratory
Attributes: Technical

PLB 151(3) Course ID:001946
Basic Plumbing Skills
This course introduces the student to basic pipe joining techniques. Co-requisite: PLB 150. Laboratory: 3 credits (135 contact hours).

Components: Laboratory
Attributes: Technical

PLB 152(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 250(3) Course ID:001950
Plumbing Appliances & Fixtures
Presents the installation practices of residential water heaters (electrical and gas); and the installation of commercial water heating systems with pumps, controls, and valve systems. Study will also include site layout and testing. Pre-requisite: PLB 150. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

PLB 251(2) Course ID:001951
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: Laboratory
Attributes: Technical

PLB 270(3) Course ID:001956
License Preparation for Journeyman Exam
Provides a study of Kentucky Code in preparation for the Journeyman Exam. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (45 contact hours).

Components: Laboratory
Attributes: Technical

PLB 298(4) Course ID:004251
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:016575
Introduction to Paralegal Studies
Introduces state and federal judicial systems and paralegal roles and careers. Emphasizes rules of professional conduct, legal ethics and unauthorized practice of law by non-lawyers. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: University Course (Western Kentucky University)

PLS 200(3) Course ID:016948
Legal Ethics
Study, analysis and application of codes of professional responsibility and standards of conduct governing the practice of law in state and federal courts. Semester Hours: 3.0 Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: University 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 a “problem-solving” approach, engineering design process, and team projects. Lecture/Lab: 4 credits (150 contact hours).

Components: Lecture
Attributes: Technical

PLW 125(4) Course ID:006696
Principles of Engineering
Students will be introduced to various types of engineering, engineering communications, various design processes, types of engineering systems, statics, materials, and strength of materials, engineering for reliability, and kinematics. Pre-requisite: PLW 100. Lecture/Lab: 4 credits (150 contact hours).

Components: Lecture
Attributes: Technical
PLW 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 to solve the solution of aerospace problems. Pre-requisite: PLW-100, PLW-125, and PLW-150. Lecture/ Lab: 4.0 credits (150 contact hours).
Components: Lecture
Attributes: Technical

PLW 225(4) Course ID:006699
Civil Engineering and Architecture
The major focus of the Civil Engineering and Architecture (CAE) 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 (CIM) course is to expose students to the fundamentals of computerized manufacturing technology. The course includes: Computer Modeling; CNC Equipment; CAM Software; Robotics; and Flexible Manufacturing Systems. Pre-requisite: PLW-100, PLW-125, and PLW-150. Lecture/ Lab: 4.0 credits (150 contact hours).
Components: Lecture

PLW 295(4) Course ID:006701
Engineering Design and Development
Engineering student learns research, design, and construct a solution to open-ended engineering problem using product development lifecycle and the design process; presentation to defend solutions to a panel of outside reviewers. Pre-requisite: PLW 150 AND one of the following: PLW 200, OR PLW 225, OR PLW 250, OR Consent of the APC and/or Instructor. Lecture/Lab: 4.0 credits (150 contact hours).
Components: Lecture

PMX Power Mechanics/Measurement
PMX 100(3) Course ID:001962
Precision Measurement
This class introduces the student to the basic fundamentals of precision measurement and its application in the industrial setting. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

POL Political Science
POL 101(3) Course ID:000912
American Government
Examines national government and the political process in the United States, with emphasis on the Constitution, the President, Congress, and the judicial system. Focuses on the nature of American democracy, political challenges, and opportunities. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science

POL 210(3) Course ID:000630
Introduction to European Politics: East and West
Compares the political institutions, policy-making processes, citizen participation and political outcomes in Eastern and Western European states. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science

POL 212(3) Course ID:002254
Culture and Politics in Developing Nations
Examines and compares the politics of selected states in Africa, Asia, and Latin America analyzing such issues as culture, ethnicity, language, social class, and ideology. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

POL 235(3) Course ID:000438
World Politics
Examines the most significant problems of world politics, including the fundamental factors governing international relations, the techniques and instruments of power politics, and the conflicting interests in organizing world peace. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

POL 255(3) Course ID:000066
State Government
Examines the institutions, political processes, and policies of state governments, and the relationships of state governments with other levels of government in the United States. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: SB - Social Behavior Science

POL 271(3) Course ID:000724
Introduction to Political Behavior
The study of behavior in a political context; the analysis of basic behavioral concepts used in political science such as political roles, group behavior, belief systems, personality, power, and decision-making. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Other

POL 280(3) Course ID:005213
Issues in Public Policy
Examines selected major public issues, focusing on their nature, political ramifications, and alternate methods of managing conflict. Includes discussion of varying policies such as poverty, health care, energy, education, race and ethnic relations, and the environment. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Other

POL 299(1 - 3) Course ID:004276
Special Topics in Political Science
Addresses various topics, issues, and trends in political science. Includes topics that may vary from semester to semester at the discretion of the instructors. Lecture: 1.0 - 3.0 credits (15 contact hours).
Components: Lecture

PSJ Professional Artist/Jewelry
PSJ 210(3) Course ID:005071
Jewelry/Metals III
Provides an in-depth investigation into tools, techniques, and materials of the professional jeweler/metal smith, including the application of coloring through enameling and alternative means. Pre-requisite: (PSJ 115 and PSJ 117) or Consent of Instructor. Lab: 3.0 credits (90 contact hours).
Components: Laboratory

PSJ 211(3) Course ID:005072
Hollowware and Metal Forming
Covers design and technical processes creating functional hollowware. Emphasizes dimensional forming of sheet metal through raising, sinking, planishing and anticlastic forming. Pre-requisite: PSJ 115 or Consent of Instructor. Lab: 3.0 credits (90 contact hours).
Components: Laboratory

PSJ 212(2) Course ID:005073
Metallurgy of Precious Metals
Covers properties and characteristics of precious metals and their alloys. Emphasizes the science of metallurgy and its practical application for the professional jeweler/metal smith. Pre-requisite: (PSJ 115 and PSJ 116) or Consent of Instructor. Lab: 2.0 credits (60 contact hours).
Components: Laboratory

PSJ 215(3) Course ID:005074
Jewelry/Metals IV
Includes an in-depth investigation on production methods and techniques of the professional jeweler/metal smith. Pre-requisite: (PSJ 210 and PSJ 212) or Consent of Instructor. Lab: 3.0 credits (90 contact hours).
Components: Laboratory

PSJ 216(3) Course ID:005075
Stone Setting
Covers advanced stone setting methods and techniques for the professional jeweler/metal smith. Pre-requisite: (PSJ 210 and PSJ 212) or Consent of Instructor. Laboratory: 3.0 credits (150 contact hours).
Components: Laboratory

PSJ 220(2) Course ID:005076
Jewelry/Metals Product Development
Explores product development and the business concerns of the professional jeweler/metal smith. Pre-requisite: (PSJ 210 and PSJ 212) or Consent of Instructor. Pre-requisite OR Co-requisite: PSJ 215. Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory

PSJ 230(6) Course ID:005077
Jewelry/Metals V
Provides a capstone course that focuses on creating a body of work for exhibition and developing a professional portfolio. Pre-requisite: (PSJ 210 and PSJ 212 and PSJ 220) or Consent of Instructor. Lab: 6.0 credits (180 contact hours).
Components: Laboratory

PSM Professional Studio Artist Music
PSM 101(3) Course ID:005552
Bluegrass & Traditional Music History I: Geographic Influence & Instrumental Origin
Provides an overview of traditional instruments and their geographic and cultural origins as they relate to the foundation of bluegrass and traditional music genres. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
Attributes: Technical

PSM 105(1) Course ID:005553
Recording I
Introduces recording and sound reproduction history, terminology, equipment, and practical session experience. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Technical

PSM 107(1) Course ID:007257
Songwriting I
Introduces the process of creating original melodies and lyrics under the direction of a professional songwriter. Lab: 1.0 credit (30 contact hours).
Components: Laboratory

PSM 112(1) Course ID:007258
Individual Stringed Instrument Instruction
Provides an individual stringed instrument study course under the guidance of an experienced professional instructor. Designed to teach performance techniques in a flexible structure. May be repeated with different subtitle for a maximum of 4 credits. Pre-requisite: Audition. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
Attributes: Technical

PSM 113(1) Course ID:007259
Guitar I
Teaches basic fundamentals of bluegrass and traditional chords, rhythm and simple flat-picking lead along with standard tuning and set-up tips. Pre-requisite: MUS 174 or Consent of Instructor. Lab: 1.0 credit (30 contact hours).
Components: Laboratory

PSM 114(2) Course ID:007260
Bluegrass & Traditional Band/Ensemble
Pairs two or more instrumentalists in a group/ensemble setting, in order to explore the components and structure of a band under the guidance of a professional band leader. May be repeated with different subtitle for a maximum of 8 credits. Lab: 2.0 credits (60 contact hours).
Components: Laboratory
Attributes: Technical
PSM 116(2) Course ID:005528
Bluegrass & Traditional Harmony/Part Singing
Introduces basic bluegrass and traditional harmony/part singing and theory using ear training, number notation and basic chords. Pre-requisite: MUS 174 or Consent of Instructor. Lab: 2.0 credits (60 contact hours).
Components: Laboratory
PSM 117(1) Course ID:007261
Songwriting II
Provides guidance through the process of creating and refining original melodies and lyrics under the direction of a professional songwriter, emphasizing different techniques while overcoming barriers. Pre-requisite: PSM 107 or Consent of Instructor. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
PSM 118(2) Course ID:007262
Bluegrass & Traditional Harmony/Part Singing
Introduces basic bluegrass and traditional harmony/part singing and theory using ear training, number notation and basic chords. Pre-requisite: MUS 174 or Consent of Instructor. Lab: 2.0 credits (60 contact hours).
Components: Laboratory
PSM 121(3) Course ID:005557
Bluegrass & Traditional Music History II: Evolution of Old Time, Folk and Early Bluegrass
Provides an in-depth study of old time, folk and early bluegrass music genres and their components, exploring connections between radio, labor conflict, war and early professional musicians. Pre-requisite: PSM 101 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
PSM 125(1) Course ID:005558
Recording II
Provides practical studio and set-up training for recording sessions utilizing software and computers. Pre-requisite: PSM 105 or Consent of Instructor. Laboratory: 1.0 credit (30 contact hours).
Components: Laboratory
PSM 128(1) Course ID:005559
Songwriting II
Provides guidance through the process of creating and refining original melodies and lyrics under the direction of a professional songwriter, emphasizing different techniques while overcoming barriers. Pre-requisite: PSM 108 or Consent of Instructor. Lab: 1.0 credit (30 contact hours).
Components: Laboratory
PSM 217(2) Course ID:007263
Songwriting III
Provides guidance through the process of creating and refining original melodies, lyrics and music under the direction of a professional songwriter, emphasizing writing for specific media and multi-writer collaboration. Pre-requisite: PSM 117 or Consent of Instructor. Lab: 2.0 credits (60 contact hours).
Components: Laboratory
PSM 227(2) Course ID:007264
Songwriting IV
Provides guidance through the process of creating an effective demo and marketing original songs under the direction of a professional songwriter, emphasizing the completed demo project. Pre-requisite: PSM 217 or Consent of Instructor. Lab: 2.0 credits (60 contact hours).
Components: Laboratory
PSM 231(3) Course ID:005560
Bluegrass & Traditional Music History III: Early Stringband & Country Music
Provides an in-depth study of early stringband, country music and promotion pioneers, focusing on the role of early radio and recordings. Pre-requisite: PSM 121 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
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
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
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. PSM 231. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
PSM 245(2) Course ID:005564
Recording IV
Provides an advanced and complex study of recording, mixing and editing software session data to finished products. Pre-requisite: PSM 235 or Consent of Instructor. Laboratory: 2.0 credits (60 contact hours).
Components: Laboratory
PSM 248(2) Course ID:005565
Songwriting IV
Provides guidance through the process of creating an effective demo and marketing original songs under the direction of a professional songwriter, emphasizing the completed demo project. Pre-requisite: PSM 238 or Consent of Instructor. Lab: 2.0 credits (60 contact hours).
Components: Laboratory
PSW 211(3) Course ID:005061
Wood Bending and Veneering
Covers construction and design possibilities through techniques of strip lamination and steam bending to create curved shaped parts in furniture. Includes veneering design and applications. Pre-requisite: (PSW 115 and PSW 116) or Consent of Instructor. Lab: 3.0 credits (90 contact hours).
Components: Laboratory
PSW Professional Artist/Woodwork
PSY 100(3) Course ID:000563
Psychology
Introduces the history, methods and content of modern psychology. Covers the history and systems of psychology, psychological research, physiological psychology, psychological processes, developmental psychology, personality, abnormal behavior and social psychology. Pre-requisite or Co-requisite: Current placement scores for college level reading established by KCTCS or completion of, or concurrent enrollment in, transitional reading course(s). Lecture: 3 credits (45 contact hours).
Components: Lecture
PSY 110(3) Course ID:000563
General Psychology
Introduces the history, methods and content of modern psychology. Covers the history and systems of psychology, psychological research, physiological psychology, psychological processes, developmental psychology, personality, abnormal behavior and social psychology. Pre-requisite or Co-requisite: Current placement scores for college level reading established by KCTCS or completion of, or concurrent enrollment in, transitional reading course(s). Lecture: 3 credits (45 contact hours).
Components: Lecture
PSY 180(3) Course ID:000151
Human Relations
Explores the sociological and psychological forces that affect interpersonal relationships as individuals work and live together. Pre-requisite: ACT, COMPASS, or ASSET scores for college level reading OR completion of Transitional reading course(s). Lecture: 3 credits (45 contact hours).
Components: Lecture
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
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
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
PSY 212(4) Course ID:002256
Applications of Statistics in Psychology
Introduces students to descriptive and inferential statistics in design, analysis, and interpretation of psychological research. Pre-requisite: ACT, COMPASS, or ASSET score for college level mathematics or completion of Transitional math course(s). PSY 110. Lecture/Lab: 4.0 credits (75 contact hours).
Components: Integrated Laboratory, Integrated Lecture
PSY 213(4) Course ID:002255
Research Methods
Applies scientific methods to psychological research. Provides practical experience in designing and executing a research project using observational, survey, and/or true experimental design methodologies. Requires application of descriptive and inferential statistics and written report of research project results. Pre-requisite: PSY 110. Lecture/ Lab: 4.0 credits (75 contact hours).
Components: Lecture
PSY 223(3) Course ID:000488
Developmental Psychology
Examines physical, cognitive, emotional, and social development throughout the lifespan from conception to death. Reviews concepts, principles, and theories of developmental psychology. Explores influences upon psychological development such as heredity, culture, ethnicity, socioeconomic status, and gender. Pre-requisite: PSY 100 or PSY 110. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
PSY 224(3) Course ID:000489
Developmental Psychology
Examines physical, cognitive, emotional, and social development throughout the lifespan from conception to death. Reviews concepts, principles, and theories of developmental psychology. Explores influences upon psychological development such as heredity, culture, ethnicity, socioeconomic status, and gender. Pre-requisite: PSY 100 or PSY 110. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
PSY 232(3) Course ID:000488
Developmental Psychology
Examines physical, cognitive, emotional, and social development throughout the lifespan from conception to death. Reviews concepts, principles, and theories of developmental psychology. Explores influences upon psychological development such as heredity, culture, ethnicity, socioeconomic status, and gender. Pre-requisite: PSY 100 or PSY 110. Lecture: 3.0 credits (45 contact hours).
Components: Lecture
PSY 230(3) Course ID:000387
Psychosocial Aspects of Death and Dying
Examines the biophysiological, psychological, sociological, and cultural aspects of death and dying in the evolving global world. Explores variations in the behaviors and attitudes associated with death, dying, and bereavement, with particular attention to the contexts (e.g., cultural, familial, historical, life span developmental) in which these variations occur. Pre-requisite: PSY 110 or SOC 101, or consent of instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, SB - Social Behavior Science

PSY 237(3) Course ID:004818
Psychology of Aging
Provides an overview of the demographics of aging, theories of aging and research methods used to study adult development. Examines the biological, psychological and social impact of aging, longevity work, retirement, death and bereavement. Pre-requisite: PSY 110 or consent of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: SB - Social Behavior Science

PSY 298(3) Course ID:004819
Essentials of Abnormal Psychology
Provides an overview of the theories, diagnoses, and treatments of psychological disorders. Covers the biological, psychological, and social factors that influence the etiology, understanding, and management of psychopathology within society. Pre-requisite: PSY 110 or Consent of Instructor. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: SB - Social Behavior Science

PSY 299(1 - 3) Course ID:000534
Special Introductory Topics in Psychology
Introduces specialized topics in the field of psychology to meet current trends and investigations of contemporary issues in the discipline. May be repeated to a maximum of six credits under different subtitles. Pre-requisite: PSY 110 or consent of instructor. Lecture: 1.0 - 3.0 credits (15 - 45 contact hours).

Components: Lecture
Attributes: Other

PSY 2231(0.6) Course ID:006379
Foundations of Development
Introduces the principles of developmental psychology with emphasis on theory and data relating to the physical, cognitive, and psycho-social developmental aspects. Explores prenatal development through the birth process. Pre-requisite: PSY 110. Lecture: 0.6 credit (9 contact hours).

Components: Lecture

PSY 2232(0.6) Course ID:006380
Infancy through Early Childhood
Emphasizes theory and data relating to the physical, cognitive, and psycho-social developmental aspects of infancy, toddlerhood, and early childhood. Pre-requisite: PSY 2231. Lecture: 0.6 credit (9 contact hours).

Components: Lecture

PSY 2233(0.6) Course ID:006381
Middle Childhood & Adolescence
Emphasizes theory and data relating to the physical, cognitive, and psycho-social developmental aspects of middle childhood and adolescence. Pre-requisite: PSY 2232. Lecture: 0.6 credit (9 contact hours).

Components: Lecture

PSY 2234(0.6) Course ID:006382
Emerging and Middle Adulthood
Emphasizes theory and data relating to the physical, cognitive, and psycho-social developmental aspects of emerging and middle adulthood. Pre-requisite: PSY 2233. Lecture: 0.6 credit (9 contact hours).

Components: Lecture

PSY 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. Explores issues related to death and bereavement. Pre-requisite: PSY 2234. Lecture: 0.6 credit (9 contact hours).

Components: Lecture

PSY 201(5) Course ID:016102
Orientation to Physical Therapy Practice
Includes orientation to the profession of physical therapy, legal aspects of physical therapy practice, interdisciplinary team, cultural diversity, medical terminology, research and evidence-based practice, and introductory patient-care skills such as communication, aseptic techniques, body mechanics, safety procedures, wheelchair management, patient transfers, patient positioning and draping, and vital signs, identification and fitting of ambulation aids, basic gait training, patient and consumer education. Pre-requisite: Admission to the PTA Program and completion of BIO 137 with a grade of “C” or better. Co-requisite: PTA 125. Lecture: 2 credits (30 contact hours). Lab: 3 credits (90 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

PTA 120(2) Course ID:006723
Basic Skills for the PTA
Introduces basic concepts of health and disease and introductory patient care skills. Includes orientation to the profession of physical therapy, legal aspects of physical therapy practice, and introductory patient-care skills such as aseptic technique; body mechanics; safety procedures; wheelchair management; patient transfers; positioning and draping; gait training; passive, active, and active-assisted exercise and stretching. Pre-requisite: Admission to the PTA Program; Completion of BIO 137 & BIO 139 with a C or better. Co-requisite: PTA 1001, PTA 1502, PTA 121, PTA 170. Lecture: 2 credits (30 contact hours).

Components: Lecture

PTA 121(2) Course ID:006724
Basic Skills for the PTA Lab
Develops introductory patient-care skills such as communication; safety procedures; aseptic technique; body mechanics; wheelchair management; patient transfers; positioning and draping; gait training; pain assessment; passive, active, and active-assisted exercise; stretching; and documentation. Lab experiences will reflect concepts taught in the paired lecture course. Pre-requisite: Admission to the PTA Program; Completion of BIO 137 & BIO 139 with a C or better. Co-requisite: PTA 1001, PTA 1502 and PTA 120 and PTA 170. Lab: 2 credits (60 contact hours).

Components: Laboratory

PTA 125(1) Course ID:007370
Neuroanatomy for the PTA
Encompasses the neuroanatomy of the central and peripheral nervous systems and applies these concepts to common neurological pathologies found in rehabilitation. Pre-requisite: Admission to the PTA Program and completion of BIO 137 with a grade of “C” or better. Co-requisite: PTA 101. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

PTA 150(6) Course ID:004174
Functional Anatomy and Kinesiology
Emphasizes the structure and function of the musculoskeletal system, the relationship with biomechanical principles, basic physical principles, and the mechanical aspects of human motion. Includes muscle testing, flexibility testing, goniometry, and aspects of normal gait and posture. Pre-requisite: [Pathway 1: Admission to the PTA Program and completion of BIO 137, BIO 139, PTA 101 & PTA 125 with a grade of C or better.] OR [Pathway 2: Admission to the PTA Program and completion of BIO 137 & BIO 139 with a grade of C or better]. Co-requisite: [Pathway 1: PTA 160 and PTA 170] OR [Pathway 2: PTA 120, PTA 121 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 150(1) Course ID:004173
Medical and Surgical Conditions in Physical Therapy
Includes the study of health and disease of all age groups with an emphasis on the etiology, pathology, prevention, data collection, and physical therapy interventions in selected medical and surgical conditions encountered in physical therapy. Pre-requisite: Admission to the PTA Program and completion of BIO 137, BIO 139, PTA 101 and PTA 125 with a C or better. Co-requisite: PTA 150 and PTA 170. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

PTA 170(1) Course ID:004013
Clinical Practicum I
Includes clinical observation and practice of selected physical therapy interventions and data collection with the application of knowledge from previous/ concurrent PTA courses and general education coursework. Pre-requisite: [Pathway 1: Admission to the PTA Program and completion of BIO 137, BIO 139, PTA 101 & PTA 125 with a C or better.] OR [Pathway 2: Admission to the PTA Program and completion of BIO 137 & BIO 139 with a C or better] Co-requisite: [Pathway 1: PTA 150 and PTA 160] OR [Pathway 2: PTA 120, PTA 121, PTA 1501, and PTA 1502].
Clinical: 1 credit (60 contact hours).

Components: Clinical
Attributes: Technical

PTA 200(5) Course ID:004017
Modalities & Procedures in Physical Therapy
Includes the basic physical science principles of selected physical therapy interventions, data collection, and selected physiotherapy interventions including wound therapy, compression therapy, safety procedures, gait training, traction, massage, superficial heat and cold, deep heat modalities, electrotherapy, ultraviolet radiation, hydrotherapy, and documentation. Pre-requisite: If yes, list: Admission to the PTA Program and completion of: PTA 150 and 160 with a grade of “C” or better; PTA 170 with a grade of “P”; all general education courses required for completion of the Physical Therapist Assistant program with a grade of “C” or better. Co-requisite: PTA 220 and PTA 240. Lecture: 2 credits (30 contact hours). Laboratory: 3 credits (90 contact hours).

Components: Laboratory, Lecture
Attributes: Course Also Offered in Modules, Technical

PTA 202(2) Course ID:006725
Therapeutic Modalities in Physical Therapy
Includes the basic physical science, data collection, and principles of selected physical therapy interventions including, massage, superficial heat and cold, sound agents, electromagnetic radiation, electrotherapy, biofeedback, traction, and compression therapy. Pre-requisite: Admission to the PTA Program; Completion of PTA 1501, PTA 1502, PTA 120, PTA 121, PTA 170 with a C or better. Co-requisite: PTA 222, PTA 223, PTA 232, PTA 233, PTA 203, PTA 240. Student cannot progress to PTA 240 without a grade of C or better in all other co-requisite courses. Lecture: 2.0 credits (30 contact hours).

Components: Lecture
Attributes: Technical

PTA 203(2) Course ID:006726
Therapeutic Modalities in Physical Therapy Lab
Develops skills in data collection, documentation, and the application of selected physical therapy interventions including, massage, superficial heat and cold, sound agents, electrotherapy, biofeedback, traction, and compression therapy. Lab experiences will reflect concepts taught in the paired lecture course. Pre-requisite: Admission to the PTA Program; Completion of PTA 1501, PTA 1502, PTA 120, PTA 121, PTA 170 with a C or better. Co-requisite: PTA 222, PTA 223, PTA 232, PTA 233, PTA 203, PTA 240. Student cannot progress to PTA 240 without a grade of C or better in all other co-requisite courses. Lab: 2.0 credits (60 contact hours).

Components: Laboratory
Attributes: Technical
PTA 220(5) Course ID:004016  
Physical Therapy Principles & Procedures  
Emphasizes selected physical therapy interventions, documentation, and data collection for management of patients with the following problems: musculoskeletal conditions, pulmonary and respiratory diseases, balance problems, thermal injuries, arthritis, amputations and cardiac diseases. Includes therapeutic exercise, orthotics, prosthetics, wellness, and women's health issues. Pre-requisite: Admission to the PTA Program and completion of: PTA 150, PTA 152, PTA 120, and PTA 121 with a grade of "C" or better; PTA 170 with a grade of "P"; all general education courses required for completion of the Physical Therapist Assistant program with a grade of "C" or better. Co-requisite: PTA 200 and PTA 240. Lecture: 2 credits (30 contact hours). Laboratory: 3 credits (90 contact hours).

Components: Laboratory, Lecture  
Attributes: Technical

PTA 222(2) Course ID:006727  
Pathology & Rehabilitation of Orthopedic Conditions  
Focuses on etiology, pathology, progression, prevention, data collection, and selected physical therapy interventions for management of patients with the following problems: musculoskeletal conditions, pathological gait, arthritis, and amputations. Includes therapeutic exercise, orthotics, prosthetics, and support devices. Pre-requisite: Completion of PTA 1501, PTA 1502, PTA 120, and PTA 121 with a C or better. Completion of PTA 170 with a grade of P. Co-requisite: PTA 223, PTA 232, PTA 233, PTA 202 and PTA 240. Students cannot progress to PTA 240 without a grade of C or better in all other co-requisite courses. Lecture: 2 credits (30 contact hours).

Components: Lecture  
Attributes: Technical

PTA 223(2) Course ID:006728  
Pathology & Rehabilitation of Orthopedic Conditions Lab  
Develops skills in selected physical therapy interventions and data collection for management of patients with the following problems: musculoskeletal conditions, pathological gait, arthritis, and amputations. Includes therapeutic exercise, orthotics, prosthetics, and support devices. Pre-requisite: Completion of PTA 1501, PTA 1502, PTA 120, and PTA 121 with a C or better. Completion of PTA 170 with a grade of P. Co-requisite: PTA 222, PTA 232, PTA 233, PTA 202, and PTA 240. Students cannot progress to PTA 240 without a grade of C or better in all other co-requisite courses. Lab: 2 credits (60 contact hours).

Components: Laboratory  
Attributes: Technical

PTA 224(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 will entail four consecutive weeks of full-time clinical experience. In order to participate in this clinical experience, the student must be earning a grade of C or better in all Co-requisite courses. Pre-requisite: [Pathway 1: Admission to the PTA Program and completion of: PTA 150 and 160 with a C or better; PTA 170 with a grade of P; all general education courses required for completion of the Physical Therapist Assistant program with a grade of C or better.] OR [Pathway 2: Admission to the PTA Program and completion of: PTA 120, PTA 121, PTA 1501, and PTA 1502 with a C or better; PTA 170 with a grade of P.] Co-requisite: [Pathway 2: PTA 202, PTA 203, PTA 222, PTA 223, PTA 232, PTA 233, PTA 202, and PTA 230 and PTA 240. Students cannot progress to PTA 240 without a grade of C or better in all other co-requisite courses. Lecture: 2.0 credits (30 contact hours).

Components: Lecture  
Attributes: Technical

PTA 225(0) 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, and genetric/ congenital disorders. Includes normal growth and development and the rationale and techniques of neuroreconstruction and re-education. Pre-requisite: Admission to the PTA Program; Completion of PTA 1501, PTA 1502, PTA 120, and PTA 121 with a C or better. Completion of PTA 170 with a grade of P. Co-requisite: PTA 222, PTA 223, PTA 232, PTA 202, and PTA 230 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 226(2) Course ID:004172  
Seminar in Physical Therapy  
Provides topics to assist the student in the transition to the physical therapist assistant including trends, specialized practices, self-care, and the clinical process. Utilizes case studies to assist students to integrate theory and practice. Pre-requisite: [Pathway 1: Admission to the PTA Program and completion of: PTA 200 and 220 with a grade of "C" or better and PTA 240 with a grade of "P".] OR [Pathway 2: Admission to the PTA Program and completion of: PTA 202, PTA 222, PTA 223, PTA 232, and PTA 233 with a grade of "C" or better. Completion of PTA 240 with a grade of "P".] Co-requisite: [Pathway 1: PTA 250] OR [Pathway 2: PTA 254, PTA 255, and PTA 280. Students cannot progress to PTA 280 without a grade of "C" or better in all co-requisite courses.] Pre-requisite Or Co-requisite: [Pathway 1: PTA 280; if taken as a prerequisite to PTA 280, must earn a C or better for PTA 260.] Lecture: 2 credits (30 contact hours).

Components: Lecture  
Attributes: Technical

PTA 280(5) Course ID:004020  
Clinical Practicum III  
Includes clinical observation and practice of physical therapy interventions and data collection with the application of knowledge from previous and concurrent PTA courses and general education coursework. By the end of the clinical experience the student will demonstrate an entry level of practice. Pre-requisite: [Pathway 1: Admission to the PTA Program and completion of: PTA 200 and 220 with a grade of C or better and PTA 240 with a grade of P] OR [Pathway 2: PTA 202, PTA 203, PTA 222, PTA 223, PTA 232, and PTA 233 with a grade of C or better. Completion of PTA 240 with a grade of P] Co-requisite: [Pathway 2: PTA 254, PTA 255, and PTA 260. Students cannot progress to PTA 260 without a grade of C or better in all Co-requisite courses.] Pre-requisite Or Co-requisite: [Pathway 1: PTA 250, PTA 260; if taken as Pre-requisites to PTA 280, must earn a C or better for PTA 250 & PTA 260.] Practicum: 5 credits

Components: Practicum  
Attributes: Technical

PTA 1501(3) Course ID:006721  
Functional Anatomy and Kinesiology Lab  
Develops selected data collection techniques in physical therapy, including: goniometry, manual muscle testing, flexibility, sensory integrity, reflex testing, and postural assessment. Lab experiences will reflect concepts taught in paired lecture course. Pre-requisite: [Pathway 1: Admission to the PTA Program and completion of: PTA 137, BIO 139, PTA 101 and PTA 125 with a grade of C or better] OR [Pathway 2: Admission to the PTA Program; Completion of BIO 137 & BIO 139 with a C or better.] Co-requisite: [Pathway 1: PTA 150, PTA 170 & PTA 1502 OR PTA 202, PTA 120, PTA 121, PTA 1502 and PTA 170] Lab: 3 credits (90 contact hours).

Components: Laboratory

344
QMS 101(3) Course ID:004464
Introduction to Quality Systems
Students are introduced to fundamental concepts, principles, and practices used to improve quality in organizations. The need for organizational change is reviewed and paradigms of quality are introduced. An overview of areas of change, methods of quality planning, and methods for implementing quality policies are provided. Students will practice problem solving techniques make decisions based on data, work in teams, troubleshoot, and demonstrate knowledge of implementing continuous improvement processes. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

QMS 202(3) Course ID:000669
Performance Management
Students are introduced to a systematic, data-oriented approach to managing processes for maximizing performance and quality. Data are used to measure and evaluate effectiveness of performance. Organizational and individual behavior will be studied in the context of increasing performance and quality. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Course Also Offered in Modules, Technical

QMS 210(3) Course ID:004283
Lean Processes
Introduces the concepts and skills of lean processing for manufacturing and service settings. Covers organizational readiness, SS, value stream mapping, kaizen, and visual workplace. Examines the implementation of processing. Pre-requisite: QMS 101 or Consent of Instructor and MA 109 or MT 150. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

QMS 212(3) Course ID:004284
Project Management
Provides insight into concepts and skills required to design the infrastructure for the successful planning, scheduling, and launching of a project. Promotes skills necessary to improve coordination of operational resources, create effective teams, operate efficiently in a rapidly changing world, and minimize internal problems of system start ups. Teaches techniques to gain organizational acceptance for projects. Pre-requisite: QMS 101 or Consent of Instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

QMS 240(3) Course ID:004467
Statistics for Quality I
Introduces methods of organizing information about processes. Examines presentation, description, and analysis of data. Emphasizes handling and interpreting numerical information, including histograms and control charts. Presents and applies concepts of probability to control charts to promote process understanding to improve quality of products and service. Investigates sampling principles. Uses computer generated analyses. Pre-requisite: MA 109 or MT 150. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical
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<th>Course ID</th>
<th>Course Title</th>
<th>Credits</th>
<th>Contact Hours</th>
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<td>RCP 110(3)</td>
<td>Respiratory Care Practitioner</td>
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<td>RCP 110(3)</td>
<td>Cardiopulmonary Anatomy and Physiology</td>
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<td>RCP 120(4)</td>
<td>Theory and Principles of Respiratory Care</td>
<td>1</td>
<td>15</td>
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<td>Respiratory Care Practice I</td>
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<td>RCP 122(4)</td>
<td>Fundamentals of Respiratory Care</td>
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<td>RCP 125(4)</td>
<td>Cardiopulmonary Evaluation</td>
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<td>Respiratory Pharmacology</td>
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<td>Cardiopulmonary Assessment</td>
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<tr>
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<td>Clinical Practice II</td>
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<td>Respiratory Care Practice II</td>
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<td>Introduction to Mechanical Ventilation</td>
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<td>Advanced Ventilatory Support</td>
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<td>Patient-Ventilator System Management</td>
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<td>Emergency &amp; Special Procedures</td>
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<td>RCP 214(3)</td>
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RCP 225(3) Course ID:003799
Clinical Practice IV
Provides observation and practice of advanced cardiopulmonary evaluation techniques while improving efficiency in the ventilatory management of patients. Pre-requisite: RCP 200 with a grade of C or better. Clinical: 3 credits (180 contact hours).
Components: Clinical Attributes: Technical
RCP 226(4) Course ID:004841
Respiratory Care Practice IV
Provides observation and practice in advanced cardiopulmonary evaluation techniques while improving efficiency in the ventilatory management of adult patients. Pre-requisite: [(RCP 176 and RCP 185) with a grade of C or better] or Consent of Instructor. Clinical: 4 credits (240 contact hours).
Components: Clinical Attributes: Technical
RCP 228(2) Course ID:003800
Preventive and Long-Term Respiratory Care
Covers prevention of cardiopulmonary disorders and care of individuals with long term cardiopulmonary disability. Addresses psychosocial and physical needs of clients with emphasis on improving the quality of life and cardiopulmonary reserve. Pre-requisite: [RCP 110 or (RCP 195 and RCP 210 and RCP 212 and RCP 226)] with a grade of C or better or consent of instructor. Lecture: 2 credits (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical
RCP 240(3) Course ID:004844
Advanced Cardiopulmonary Evaluation
Addresses cardiopulmonary assessment including hemodynamic monitoring, pulmonary and cardiac exercise/ stress testing, advanced cardiac procedures, blood chemistry and fluid and electrolyte balance. Pre-requisite: [RCP 195 and RCP 210 and RCP 212, and RCP 226] with a grade of C or better or consent of instructor. Lecture: 2.75 credits (41.25 contact hours). Laboratory: 0.25 credit (15 contact hours).
Components: Laboratory, Lecture Attributes: Technical
RCP 245(2) Course ID:004845
Advanced Cardiac Life Support
Focuses on managing acute cardiovascular emergencies including cardiac arrest, acute myocardial infarction and stroke. Students demonstrating essential knowledge and skills and obtaining 85% or greater on the written exam will receive an American Heart Association ACLS provider card. Lecture: 1.5 credits (22.5 contact hours). Laboratory: 0.5 credit (30 contact hours).
Components: Laboratory, Lecture Attributes: Technical
RCP 250(3) Course ID:003801
Clinical Practice V
Prepares students to participate in effective and efficient planning, managing and delivering respiratory care to diverse client populations in various settings. Pre-requisite: RCP 225 with a grade of C or better. Clinical: 3 credits (180 contact hours).
Components: Clinical Attributes: Technical
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 RCP 210 and RCP 212 and RCP 225) with a grade of C or better or Consent of Instructor. Lecture: 1 credit (15 contact hours).
Components: Lecture Attributes: Technical
RDG 020(3) Course ID:002286
Improved College Reading
Improves proficiency in reading comprehension, vocabulary, and critical thinking skills, and prepares students for college and career reading through individualized and/or group instruction practice. Pre-requisite: As determined by KCTCS Placement Policy. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Remedial - Reading, Course Also Offered in Modules
RDG 030(3) Course ID:006805
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 041(1) Course ID:006808
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 096(4) Course ID:016767
Introduction to College Reading
Improves proficiency in reading comprehension, critical thinking skills, and critical reading skills by developing vocabulary techniques, active reading strategies, comprehension accuracy, and interpretation of visual elements in text. Prepares students for college and career reading through individualized and/or group instruction practice. Applies theories and strategies taught in the course to college and career reading materials. Pre-requisite: Current KCTCS placement policy. Lecture: 4.0 credits (60 contact hours).
Components: Lecture Attributes: Remedial - Reading
RDG 100(1 - 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 to college level materials. Pre-requisite: KCTCS Placement Policy. Lecture: 1.0-3.0 credits (15-45 contact hours).
Components: Lecture Attributes: Other, Supplemental Reading
RDG 165(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 Attributes: Course Also Offered in Modules, Supplemental Reading
RDG 201(0.5) Course ID:006737
Active Reading
Applies active reading, metacognitive, self-evaluation, and reading rate strategies for proficiency in reading comprehension. Includes topics such as the reading process, self-monitoring and self-correcting comprehension, and adjusting reading strategies for various comprehension purposes. Pre-requisite: As determined by KCTCS Placement Policy. Lecture: 0.5 credits (7.5 contact hours).
Components: Lecture Attributes: Remedial - Reading
RDG 202(0.75) Course ID:006738
Transitions, Thought Patterns
Construct meaning from texts through analyzing transitions and patterns of organization to improve comprehension and critical thinking skills. Pre-requisite: As determined by KCTCS Placement Policy. Lecture: .75 credits (11.25 contact hours).
Components: Lecture Attributes: Remedial - Reading
RDG 203(1) Course ID:006739
Basics of Argument
Recognize basic argument components, analyze contradictions to prior learning, and draw valid conclusions about claims and supports for claims to improve critical reading and thinking skills. Use main ideas to accurately summarize texts. Pre-requisite: As determined by KCTCS Placement Policy. Lecture: 1.0 credits (15 contact hours).
Components: Lecture Attributes: Remedial - Reading
RDG 204(0.75) Course ID:006740
Words and Visual Elements
Expands vocabulary through examining word parts and context clues, and infers tone and purpose through word combinations. Constructs meaning from visual elements to improve comprehension of text. Pre-requisite: As determined by KCTCS Placement Policy. Lecture: .75 credits (11.25 contact hours).
Components: Lecture Attributes: Remedial - Reading
RDG 0301(0.75) Course ID:006741
Critical Reading
Uses active learning, prior knowledge, and metacognitive strategies to quickly enhance comprehension. Uses active learning, prior knowledge, and self-assessment strategies to quickly enhance comprehension of text. Pre-requisite: As determined by KCTCS Placement Policy, or successful completion of RDG 020. Lecture: .75 credits (11.25 contact hours).
Components: Lecture Attributes: Remedial - Reading
RDG 0302(0.75) Course ID:006742
Text Structures and Supports
Analyzes text structures, paragraphs, longer passages, and arguments for central ideas, supporting examples, reasons, and evidence to construct meaning from texts. Pre-requisite: As determined by KCTCS Placement Policy, or completion of RDG 020. Lecture: .75 credits (11.25 contact hours).
Components: Lecture Attributes: Remedial - Reading
RDG 0303(0.75) Course ID:006743
Logic and Evidence
Analyzes text for logical reasoning and valid supports to quickly detect key information in texts. Pre-requisite: As determined by KCTCS Placement Policy, or completion of RDG 020. Lecture: .75 credits (11.25 contact hours).
Components: Lecture Attributes: Remedial - Reading
Words and Visual Elements
Construct meaning from word parts, context clues, connotation, and denotation for accurate comprehension of text. Evaluate word combinations to determine the author’s view, tone, and purpose for writing the text. Infer meaning from visual elements such as diagrams, charts, and photos. Pre-requisite: As determined by KCTCS Placement Policy, or completion of RDG 020. Lecture: .75 credits (11.25 contact hours).

Components: Lecture
Attributes: Remedial - Reading

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
Attributes: Enrichment Study Skills

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
Attributes: Enrichment Study Skills

Words and Visuals
Construct meaning from vocabulary and visual elements, and use this information to summarize, map concepts, and 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
Attributes: Enrichment Study Skills

REA Real Estate
REA 100(3) Course ID:000906
Real Estate Principles I
Introduces real estate as a business and as a profession, designed to acquaint the student with the wide range of subjects necessary to the practice of real estate. Includes license law, ethics, purchase and listing agreements, brokerage, deeds, financing, appraisals, mortgages, and real estate property management. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

REA 120(3) Course ID:000365
Real Estate Marketing
Includes marketing and selling of real estate properties. Emphasizes qualifying prospects, preparing for property showings, negotiating the sale, developing a five-year goal plan, and managing time. Utilizes computer applications. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

REA 121(3) Course ID:000778
Appraisal
Addresses appraising residential real estate for loans, estates, condemnations, and listings, and the factors that contribute to the value of real estate. Includes three methods of estimating value with emphasis given to the market data approach. Lecture: 3 credits (45 contact hours).

Components: Lecture

REA 200(3) Course ID:0000805
Real Estate Principles II
Continues Real Estate Principles I with emphasis on license law, finance, property management, marketing, land planning and development, brokerage management, fair housing, and appraising. Pre-requisite: REA 100. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Technical

REA 201(3) Course ID:0000915
Property Management
Examines the basics of managing income-producing real property. Includes management plans, tenant selection, marketing and advertising, accounting methods, net operating income statements, maintenance, and the Landlord Tenant Act. Pre-requisite: REA 100. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

REA 202(3) Course ID:0000875
Real Estate Investments I
Introduces various types of real estate investments. Includes a comparison of investments in real estate with other types of investments. Covers basic fundamentals of investment analysis and terminology. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

REA 203(3) Course ID:0000527
Commercial and Industrial Property
Covers classifications of commercial and industrial properties. Includes investment, environment, financing, taxes, depreciation, ownership, cash flow projection, and discount analysis. Integrates computer applications. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

REA 204(3) Course ID:0000825
Land Planning and Development
Includes the specialized field of land planning and development with emphasis on new home construction. Includes market research, site selection and analysis, regulations, financing, earthwork, streets, and landscaping. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

REA 205(3) Course ID:000620
Farm Brokerage
Includes farm brokerage and specific subjects relating to the sale of farm property. Covers listing, prospecting, showing, financing, negotiating and closing the farm sale as well as the duties of the farm manager. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

REA 212(3) Course ID:0000194
Real Estate Investments II
Includes an analysis of operations and cash flow with detailed instruction on the use and calculation of internal rate of return, financial management rate of return, operational and feasibility analysis, and model investment projections. Pre-requisite: REA 202. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

REA 222(1) Course ID:0004733
Uniform Standards of Professional Appraisal
Provides an understanding and appreciation of the Uniform Standards of Professional Appraisal Practice (USPAP) and how these standards set the minimum foundation on which both the development of an appraisal and the reporting of that appraisal must adhere and develop. Meets the pre-licensing and continuing education requirements of the Kentucky Real Estate Appraisers Board and the Appraisal Institute. Pre-requisite: REA 121 or Appraiser’s license. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

REA 225(3) Course ID:000432
Real Estate Finance
Examines all aspects of real estate finance including financial instruments, financial institutions, buyer qualifications, and mortgage markets. Includes governmental influence, risk analysis, and financing of income-producing properties. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

REA 230(3) Course ID:0000391
Real Estate Law
Examines the laws and regulations pertaining to real estate and related environmental issues. Includes ownership rights, title examination, planning and zoning, contracts of sale, Fair Housing regulations, agency issues, court systems and recent court decisions. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

REA 299(1 - 3) Course ID:0000541
Selected Topics in Real Estate: (Top)
Includes topics to expand course offerings as new technology and information are developed, as well as to address local real estate needs. Covers various topics from semester to semester at the discretion of the instructor. (May be repeated to a maximum of six credit hours.) Pre-requisite: Consent of instructor. Lecture: 1-3 credits (15 contact hours).

Components: Lecture

REL Religious Studies
REL 101(3) Course ID:000916
Introduction to Religious Studies
Introduces students to the study of religion, emphasizing the varieties, differences, and similarities of religious experience and expression. Examines the interaction between religious experience and expression and social and cultural contexts through study of selected examples. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Cultural Studies, AH - Arts and Humanities, SB - Social Behavior Science

REL 120(3) Course ID:005282
Introduction to the Old Testament
Introduces books of the Hebrew Bible (Old Testament) using knowledge of literary forms as well as historical and cultural backgrounds to aid in the interpretation of the religious and philosophical meanings of the text. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: AH - Arts and Humanities

REL 121(3) Course ID:005283
Introduction to the New Testament
Introduces New Testament using knowledge of literary forms as well as historical and cultural backgrounds to aid in the interpretation of the religious and philosophical meanings of the text. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: AH - Arts and Humanities

REL 130(3) Course ID:000360
Introduction to Comparative Religion
Introduces students to a comparative analysis of world religions, emphasizing beliefs, rituals, artistic expressions, and cultural and social organization. Includes both Eastern and Western religions. (Same as ANT 130). Lecture: 3 credits (45 contact hours).

Components: Lecture
Course Equivalents: ANT 130
Attributes: Cultural Studies, AH - Arts and Humanities, SB - Social Behavior Science, Course Also Offered in Modules

REL 135(3) Course ID:0007663
Christianity in Cultural Context
Surveys the historical and theological movements in Christianity from the 1st century to the mid-16th century. Emphasis will be placed on the interaction of Christian institutions and religious movements with other prevailing social, cultural, and political institutions within this timeframe. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
### SED Special Education

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<th>Course ID</th>
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<tr>
<td>SED 101(3)</td>
<td>Technical Hours</td>
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<td>Attributes: Technical</td>
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### SMT Surveying

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<tr>
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<tbody>
<tr>
<td>SMT 110(3)</td>
<td>Principles of Surveying</td>
</tr>
<tr>
<td>Provides a study of field and office procedures for measuring distances, elevations, and horizontal and vertical angles. Covers Polaris and solar observations, state plane coordinates, control surveys, and public land surveys. Lecture: 3 credits (45 contact hours).</td>
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### SOC Sociology

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<tr>
<td>SOC 220(3)</td>
<td>Surveying Lab</td>
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<tr>
<td>Investigates field procedures for measuring distances, elevations, horizontal and vertical angles, state plane coordinates, and control surveys as they pertain to boundary location, route location, construction, and mine surveys. Co-requisite: SMT 160. Laboratory: 3 credits (90 contact hours).</td>
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<tr>
<td>SMT 130(3)</td>
<td>Land Surveying Graphics</td>
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<tr>
<td>Covers graphical communication in surveying and mapping, fundamentals of projection, map projection theory, 3-D viewing, spatial relationships and viewpoints, plates, profiles, cross-sections, sketches for field notes and presentations in technical reports, map accuracy standards, plotting data from field notes and data collection, contour theory, and computations related to survey drafting. Lecture: 3 credits (45 contact hours).</td>
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<td>SOC 151(3)</td>
<td>Social Interaction</td>
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<tr>
<td>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).</td>
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<tr>
<td>SED 102(3)</td>
<td>Sign Language II</td>
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<tr>
<td>Includes a functional-notational approach designed to follow SED 101 that will enhance student's knowledge of Sign Language and expand their understanding and appreciation of the people who use it. Pre-requisite: SED 101. Lecture: 3 credits (45 contact hours).</td>
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<tr>
<td>SMT 190(3)</td>
<td>Introduction to GIS and GPS</td>
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<tr>
<td>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).</td>
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<td>SOC 152(3)</td>
<td>Modern Social Problems</td>
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<tr>
<td>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).</td>
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<td>SED 203(3)</td>
<td>Sign Language III</td>
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<tr>
<td>Emphasizes the practical application of signing, skills, development of cross-cultural communication abilities and vocabulary expansion. Reviews linguistic information and introduces additional linguistic materials. Pre-requisite: SED 102. Lecture: 3 credits (45 contact hours).</td>
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<td>SOC 181(3)</td>
<td>Sociology of the Community</td>
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<tr>
<td>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).</td>
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<td>SMT 270(3)</td>
<td>Professional Ethics &amp; Conduct for Land Surveyors</td>
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<tr>
<td>Explores the professional and ethical conduct of the Land Surveyor in areas of building a business, managing employees, communications, project management, and self-management. Pre-requisite: SMT 230, or Instructor Consent. Lecture: 3 credits (45 contact hours).</td>
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<td>SOC 270(3)</td>
<td>Deviant Behavior</td>
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<td>Continues the nature of societal rules, rule enforcers, and rule breakers. Investigates social issues and research in crime, delinquency, drug addiction, alcoholism, mental illness, pornography, sexuality and other forms of deviance with an emphasis on theoretical explanations and social consequences. Pre-requisite: SOC 101. Lecture: 3 credits (45 contact hours).</td>
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<td>Attributes: SB - Social Behavior Science</td>
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Spanish Language and Literature

SPA 101(4)  Course ID:000922
Elementary Spanish I (spoken approach)
Introduces basic modes of communication in Spanish. Stress is placed on oral expression, reading, listening, and writing as target skills. Emphasizes everyday language which the students will learn by applying essential grammatical structures to vocabulary. Placement test required. Consent of instructor required. Lecture: 3 credits (45 contact hours).

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. Stress is placed on oral expression, reading, listening, and writing as target skills. Emphasizes everyday language which the students will learn by applying essential grammatical structures to vocabulary. Placement test required. Consent of instructor required. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: Foreign Language, Cultural Studies

SPA 203(3)  Course ID:017335
High Intermediate Spanish
This course is designed to provide students with the knowledge of Spanish at the intermediate level by fine-tuning the skills of reading, speaking, listening, and writing. The goal of the course will be to focus on useful vocabulary, to practice functional grammar, to further explore cross-cultural analysis, and to develop students' communicative competence in Spanish. This course is designed for students' transition directly from high school Spanish to second-year college Spanish. Pre-requisite: Placement test or permission of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: University Course (University of Kentucky)

SPA 205(3)  Course ID:017336
Spanish for Bilingual Students
This course is an entry level for the 'Spanish for Bilingual Students' track. It will cater to the specific academic and communicative needs of two types of students: those described as 'heritage speakers/learners' and those who are 'advanced non-native speaker of Spanish'. This course is exclusively designed for these students and its purpose is to build on the students’ existance competence of the native language and to further develop oral, written, reading, and cultural competence for use in different communicative situations. Prec-requisite: Placement test, oral interview or permission of instructor. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: University Course (University of Kentucky)
SPA 1012(0.8)  
Course ID: 006223  
**Spanish for School Life**
Introduces basic modes of communication to discuss school life and everyday activities; focuses on asking questions and describing people and things; introduces the present tense of estar (to be) and -ar; explores the geography, culture, history and political issues of Spanish speaking countries with focus on Spain. Pre-requisite: SPA 1011. Lecture: 0.8 credits (12 contact hours).

Components: Lecture

SPA 1013(0.8)  
Course ID: 006224  
**Spanish for Family and Friends**
Features descriptions of family and friends; focuses on using possessive and descriptive adjectives; introduces the present tense of -er and -ir verbs, uses the verbs tener and venir to express needs and state of mind; explores the geography, culture, history and political issues of Spanish speaking countries with focus on Ecuador. Pre-requisites: SPA 1013. Lecture: 0.8 credit (12 contact hours).

Components: Lecture

SPA 1014(0.8)  
Course ID: 006225  
**Spanish for Pastime Activities**
Presents conversations regarding pastimes and activities; focuses on the present tense of the verbs ir, select stem-changing and verbs with irregular yo forms, in the context of making plans and describing events; explores the geography, culture, history and political issues of Spanish speaking countries with focus on Mexico. Pre-requisite: SPA 1013. Lecture: 0.8 credit (12 contact hours).

Components: Lecture

SPA 1021(0.8)  
Course ID: 006227  
**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 an action is done; presents present to express past tense; explores the geography, culture, history, and political issues of Spanish speaking countries with focus on Cuba. Pre-requisite: SPA 1014. Lecture: 0.8 credit (12 contact hours).

Components: Lecture

SPA 1022(0.8)  
Course ID: 006228  
**Spanish for Daily Routines**
Introduces reflexive verbs and the irregular pretetit of ser (to be) and ir (to go); highlights the verb gastar and verbs like gustar; presents negative statements; explores the geography, culture, history, and political issues of Spanish speaking countries with focus on Peru. Pre-requisite: SPA 1021. Lecture: 0.8 credit (12 contact hours).

Components: Lecture

SPA 1023(0.8)  
Course ID: 006229  
**Spanish for Restaurant Settings**
Features dialog for ordering in a restaurant and describing food, for explaining where you are and for talking about familiar people and places; introduces the pretetit of stem-changing verbs, comparatives and superlatives and indirect object pronouns and direct object pronouns; explores the geography, culture, history, and political issues of Spanish speaking countries with focus on Guatemala. Pre-requisite: SPA 1022. Lecture: 0.8 credit (12 contact hours).

Components: Lecture

SPA 1024(0.8)  
Course ID: 006230  
**Spanish for Celebrations**
Highlights conversations of congratulations and gratitude and discussing different stages of life; presents irregular preterits; discusses pronouns as prepositions; explores the geography, culture, history and political issue of Spanish speaking countries with focus on Chile. Pre-requisite: SPA 1023. Lecture: 0.8 credits (12 contact hours).

Components: Lecture

SPA 1025(0.8)  
Course ID: 006231  
**Spanish for Health Care**
Presents dialog to talk about medical conditions; contrasts the imperfect and preterit past tense; illustrates impersonal constructions with se; explores the geography, culture, history, and political issues of Spanish speaking countries with focus on Costa Rica. Pre-requisite: SPA 1024. Lecture: 0.6 credit (12 contact hours).

Components: Lecture

STA 111(3)  
Course ID: 007218  
**Sport Statistics**
Introduces students to concepts within the sports world where math and statistics skills are applied. Includes analysis of sports formulae, processes, and calculations. Applies mathematical models and ranking methods to the sports world. Assumes students will have a general knowledge and interest in sports. Pre-requisite or Co-requisite: MAT 065. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

STA 151(3)  
Course ID: 017089  
**Introduction to Applied Statistics**
Serves as an entry-level introduction to applied statistics useful for a variety of fields. Covers statistical terminology and the appropriate use of software for the calculation of descriptive statistics, basic probability, correlation and linear regression. Emphasizes understanding the uses and misuses of statistics in the real world. (Same as MAT 151.) (Students may not receive credit for both this course and any of the following: MAT 151, STA 200, STA 210, STA 215.) Pre-requisite: College Readiness in Mathematics. Lecture: 3 credit hours (45 contact hours).

Components: Lecture

Attributes: QR - Quantitative Reasoning

STA 210(3)  
Course ID: 005196  
**Statistics: A Force in Human Judgement**
Examines the interaction of the science and art of statistics in everyday life emphasizing examples from the social and behavioral sciences including the nature, scope, limitations, and interpretation of statistics. Pre-requisite: MAT 146 or MAT 150 or equivalent. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: QR - Quantitative Reasoning

STA 210(3)  
Course ID: 007335  
**Making Sense of Uncertainty: An Introduction to Statistical Reasoning**
The goal of this course is to help students develop or refine their statistical literacy skills. Both the informal activity of human inference arising from statistical constructions, as well as the more formal perspectives on statistical inference found in confidence intervals and hypothesis tests are studied. Throughout, the emphasis is on understanding what distinguishes good and bad inferential reasoning in the practical world around us. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: QR - Quantitative Reasoning

STA 220(3)  
Course ID: 005197  
**Statistics**
Examines statistical description of sample data including frequency distributions, measures of central tendency, and measures of dispersion. Includes theoretical distributions, statistical estimation, and hypothesis testing. Introduces simple linear regression and correlation. Pre-requisite: MAT 150 or equivalent. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: QR - Quantitative Reasoning, Course Also Offered in Modules

STA 251(3)  
Course ID: 017124  
**Applied Statistics**
Serves as the completion course in the statistics pathway. Covers principles of probability, discrete and continuous probability distributions, statistical estimation, hypothesis testing, linear regression, comparisons of populations, goodness of fit, and analysis of variance. Software will be used to aid in statistical computations. (Students may not receive credit for both this course and any of the following: STA 200, STA 210, STA 215, STA 220, STA 291.) Pre-requisite: MAT 151 or STA 151 or MAT 161. Lecture: 3 credits (45 contact hours).

Components: Lecture

Attributes: QR - Quantitative Reasoning

STA 296(3)  
Course ID: 001628  
**Statistical Methods and Motivations**
Introduction to principles of statistics with emphasis on conceptual understanding. Students will articulate results of statistical description of sample data (including bivariate), application of probability distributions, confidence interval estimation and hypothesis testing to demonstrate proper contextualized analysis of real-world data. Pre-requisite: MA 113, MA 123, MA 137, or equivalent. Lecture: 3.0 credits (45 contact hours).

Components: Lecture

Attributes: QR - Quantitative Reasoning

STA 2201(1)  
Course ID: 007406  
**Descriptive Statistics**
Examines statistical description of sample data including frequency distributions, measures of central tendency, and measures of dispersion. Pre-requisite: MAT 150 or equivalent. Lecture: 1.0 credits (15 contact hours).

Components: Lecture

STA 2202(1)  
Course ID: 007407  
**Probability Distributions**
Examines theoretical distributions and statistical estimation. Pre-requisite: STA 2201. Lecture: 1.0 credit (15 contact hours).

Components: Lecture

STA 2203(1)  
Course ID: 007408  
**Statistical Inference**
Examines hypothesis testing and introduces simple linear regression and correlation. Pre-requisite: STA 2202. Lecture: 1.0 credit (15 contact hours).

Components: Laboratory

SUR 100(12)  
Course ID: 002046  
**Surgical Technology Fundamentals Theory**
Provides an overview of the history of surgery and the role of the surgical technologists, including professional responsibilities, developing a professional resume, legal and ethical considerations, interpersonal relationships and communication skills. Incorporates safety, hazards preparation, aseptic technique and duties of the scrubbed and the circulating surgical technologist during a surgical procedure. Provides information for the performance and completion of surgical procedures including general surgery, ob/gyn with attendant specialty equipment, abdominal incisions, wound closures, and standard precaution skills. Pre-requisite: Minimum “C” grade in [BIO 135 or (BIO 137 and BIO 139)] and (AHS 115 or CLA 131 or MIT 103) and (BIO 225 or BIO 226 or BIO 227 or BIO 118); Co-requisite: SUR 101 and SUR 125. Pre-requisite OR Co-requisite: SUR 130, CPR (for Healthcare Providers) must be completed prior to the first surgical technology skills practicum course and must remain current throughout the Surgical Technology Program. Lecture: 12 credits (180 contact hours).

Components: Lecture

Attributes: Technical
SUR 125(2 - 3) Course ID:002049
Surgical Technology Skills Practicum I
Provides experience in a healthcare setting performing the duties of a scrubbed and/or circulating technologist during an assigned surgical procedure with an emphasis on OSHA standards. Pre-requisite: Minimum “C” grade in SUR 101. CPR (for Healthcare Providers) must be completed prior to the first surgical technology skills practicum course and must remain current throughout the Surgical Technology Program. Co-requisite: SUR 100 or (SUR 109 and SUR 110). Co-requisite or Co-requisite: SUR 130. Clinical: 2.0 - 3.0 credits (120 - 180 contact hours).
Components: Clinical
Attributes: Technical

SUR 130(2) Course ID:002050
Principles of Surgical Pharmacology
Introduces the fundamental principles of the clinical use of drugs. Emphasizes the role and responsibility of the surgical technologist related to drugs, a review of basic mathematic skills, a thorough knowledge of the systems of measurement, and conversion and application of skills to perform dosage calculations. Presents information related to medicines in common use in the surgical setting. Pre-requisite: Admission to Surgical Technology Program; Minimum “C” grade in [BIO 135 or (BIO 137 and BIO 139)] and (AHS 115 or CLA 131 or OST 103) or (AHS 130 or BIO 225 or BIO 227 or BIO 118). Pre-requisite OR Co-requisite: SUR 130, CPR (for Healthcare Providers) must be completed prior to the first surgical technology skills practicum course and must remain current throughout the Surgical Technology Program. Co-requisite: Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical

SUR 200(9) Course ID:002051
Surgical Technology Advanced Theory
Focuses on the relevant anatomy, indications for surgery, patient preparation, special equipment and supplies, purpose, expected outcomes, and possible complications of specialty areas including OSHA standards. Pre-requisite: Minimum grade of “C” in ([SUR 100 or (SUR 109 and SUR 110)]) and SUR 125 and SUR 130. Co-requisite: SUR 201. Lecture: 9.0 credits (135 contact hours).
Components: Lecture
Attributes: Technical

SUR 201(6 - 7) Course ID:002052
Surgical Technology Skills Practicum II
Provides 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 or Co-requisite: Minimum grade of “C” in [SUR 100 or (SUR 109 and 110)] and SUR 125 and SUR 130. Co-requisite: SUR 200. Clinical: 6.0 - 7.0 credits (360-420 contact hours).
Components: Clinical
Attributes: Course Also Offered in Modules, Technical

SUR 275(2) Course ID:002053
Surgical Technology Advanced Practicum
Provides an advanced experience in a healthcare setting performing the duties of a scrubbed and/or circulating technologist during an assigned surgical procedure with limited supervision. Pre-requisite OR Co-requisite: Minimum grade of “C” in SUR 200 and SUR 201. Practicum: 2.0 credits (120 contact hours).
Components: Practicum
Attributes: Technical

SUR 280(5) Course ID:004246
Department Consent Required
Surgeon's Audit
Provides accurate information about the structure and function of the human body. Intended for students who are pursuing a career as a Surgical First Assistant. Pre-requisite: Surgical Technologist or CNOR. Co-requisite: SUR 284 & SUR 295. Lecture: 5.0 credits (75 contact hours).
Components: Lecture
Attributes: Technical

SUR 282(3) Course ID:004247
Perioperative Bioscience
Promotes an understanding of microbial physiology which precedes the understanding of disease transmission and/or prevention; Emphasizes standard precautions and infection control. Contains pharmacology section designed to promote understanding of effects of pre, post and operative drugs; Includes anesthesia section designed to promote understanding of general principles/techniques and drugs used by anesthesiologists and effects on the patient; Introduces the student to the following diagnostic testing such as radiology, laboratory, cardiographics, wound healing, nutrition perioperatively, fluid and electrolyte balance, and techniques in maintaining homeostasis. Pre-requisite: Program admission and student must be a certified Surgical Technologist or an RN with operating room experience. Student must provide current documentation of certification. Pre-requisite: SUR 280 & SUR 284 & SUR 295. Co-requisite: SUR 296. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Technical

SUR 284(3) Course ID:004248
Principles of Surgical Assisting
Introduces the student to the theory involved in surgical assisting; Incorporates anatomy, surgical techniques, aseptic techniques, draping, positioning, suturing, safety, and duties of the surgical team. Pre-requisite: Program admission. Must be a certified Surgical Technologist or an RN with operating room experience OR consent. Co-requisite: SUR 280 & SUR 295. Lecture: 2 credits (30 contact hours). Laboratory: 1 credit (45 contact hours).
Components: Laboratory, Lecture
Attributes: Technical

SUR 295(1) Course ID:004250
Surgical First Assistant Clinical
Includes the performance of entry level duties of a surgical assistant in a clinical setting under the supervision of a qualified preceptor. Follows the Commission on Accreditation of Allied Health programs Surgical Assistant Core Curriculum related to the nature of the cases and the duties involved. Pre-requisite: Program admission. Co-requisite: SUR 280 and SUR 284. Clinical: 1 credit hour (45 contact hours).
Components: Clinical
Attributes: Technical

SUR 296(2 - 3) Course ID:006666
Surgical First Assistant Practicum
Involves advanced training in the preoperative, operative, and postoperative phases of surgery. Exposes student to a variety of surgical procedures. Emphasizes advanced anatomical knowledge, along with critical thinking skills, in every surgical procedure under the supervision of a surgeon who is responsible for overseeing the clinical educational experience of the student. Pre-requisite: SUR 280, SUR 284 and SUR 295. Co-requisite: SUR 282. Practicum: 3.0 credits (270 contact hours).
Components: Practicum
Attributes: Technical

SUR 297(1) Course ID:016240
Surgical First Assistant Practicum II
Involves advanced training in the preoperative, operative, and postoperative phases of surgery. Exposes student to a variety of surgical procedures. Emphasizes advanced anatomical knowledge that is applied towards the surgical diagnosis, along with critical thinking skills, in every surgical procedure under the supervision of a surgeon who is responsible for overseeing the clinical educational experience of the student. Pre-requisite: SUR 280, SUR 284, SUR 295, SUR 282. SUR 296. Practicum: 1 credit (90 contact hours).
Components: Practicum
Attributes: Technical
SWK 220(3) Course ID:000587
Cultural Diversity in Human Services
explores current and historical cultural diversity in human services as it applies to clients from various cultural groups. Focuses on cultural self-awareness and cultural competence as it pertains to human services professionals and client helper relationships. Draws attention to dominant and minority cultural norms, attitudes and belief systems including the culture of poverty. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

SWK 222(3) Course ID:000484
Development of Social Welfare
Includes cultural traditions, value orientations, and political and economic forces which have contributed to the emergence of present social welfare policies and systems in the United States. (Required of social work majors and open to all others.) Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

SWK 255(3) Course ID:000584
Introduction to Addictions
Provides an overview of approaches to understanding addictions with emphasis on the bio-psycho-social model. Analyzes the etiology, progression, and processes involved in change. Pre-requisite: PSY 100 or PY 110 or consent of instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

SWK 260(3) Course ID:000556
Crisis Intervention
Focuses on crisis intervention theory, suicide prevention, and risk assessment techniques. Covers risk assessment protocols, crisis triage, de-escalation and referral. Introduces clinical, ethical and legal aspects. Pre-requisite: PSY 100 or PY 110 or permission from instructor. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

SWK 269(3) Course ID:000304
Juvenile Delinquency
The history, nature, and extent of juvenile delinquency are studied including an examination of trends and methods of treatment in contemporary society. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

SWK 275(3) Course ID:000736
The Family
Covers the nature and structure of family systems and examination of major family issues. Includes discussion in patterns of family interaction with attention paid to resources designed to meet family needs. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Social Behavior Science

SWK 276(3) Course ID:000748
Criminology
The history, nature, and extent of crime are studied, including trends and theories of crime, philosophies and forms of punishment, as well as methods of treatment. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Social Behavior Science

SWK 281(3) Course ID:000734
Psychology of Aging
A study of the aging process with emphasis on the needs, roles, and attitudes of seniors in our society. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

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: 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: Social Behavior Science, Other

SUS 201(3) Course ID:016181
Sustainable Societies
Examines sustainability concepts, values, and institutional contexts as they are manifested in societal frameworks in the U.S. and globally. Includes topics such as urban agriculture, individual or community based environmental conservation efforts, corporate sustainability programs, as well as cultural and societal implications of resource allocations as they pertain to equity and social justice. Pre-requisite: Current KCTCS placement scores for College level reading and writing. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: 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 the institutions, as well as the formal and informal rules, that use, manage, or govern urban physical and social infrastructures. Considers the role of private groups, non-profits, and other organizations and the networks and systems of support that exists for environmental and sustainable-oriented activity. Pre-requisite: SUS101 Intro. To Sustainability & SUS201 Sustainable Societies. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Social Behavior Science, Other

SWK 124(3) Course ID:000584
Introduction to Social Services
Introduces social welfare concepts and philosophies. Examines the profession of social work and its philosophy and value commitments within social welfare. Covers public and private service delivery systems. (Required of social work majors and recommended it be taken the first year.) Lecture: 2.0 credits; Lab: 2.0 credits.
Components: Laboratory, Lecture Attributes: Technical

SWK 180(3) Course ID:000154
Introduction to Gerontology
The major biological, psychological, and sociological issues facing America’s aging population are examined. Attention is also focused on the resources available to meet needs of older Americans. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical

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. Lecture: 3 credits (45 contact hours).
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 credit hours; Laboratory: 2.0 credit 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 (90 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

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: Technical

THA 192(1)  Course ID:015596  
**Production Practicum**
Provides study and practice of production techniques through rehearsal and performance. Practicum: 1.0 credit (45 contact hours).

Components: Practicum
Attributes: Other

THA 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 Theatre program. Pre-requisite: THA 126 or Consent of Instructor. Lecture: 1.0 credit (15 contact hours). Lab: 1.0 credit (90 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. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: AH - Arts and Humanities

THA 201(3)  Course ID:004433  
**Acting for the Camera**
Includes a fundamental approach to auditioning and acting for the camera. Pre-requisite: THA 126. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Technical

THA 226(3)  Course ID:000791  
**Acting II: Scene Study (Realism)**
Concentrates on several components of the acting process: preliminary study in modern acting theories, Stanislavski to the present; textual analysis, character study and scene work, studio exercises aimed at refining rehearsal skills for the actor. Pre-requisite: THA 126 or Consent of Instructor. Lecture: 2.0 credit hours (30 contact hours). Laboratory: 1.0 credit hour (15 contact hours).

Components: Laboratory, Lecture
Attributes: Other

THA 227(3)  Course ID:002267  
**Acting III: Scene Study (Styles)**
Introduces the actor to a performance style other than realism while continuing to develop the actor’s skills in analysis and rehearsal. Pre-requisite: THA 226 or Consent of Instructor. Lecture: 2.0 credit hours (30 contact hours) Lab: 1.0 contact hour (15 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

THA 230(3)  Course ID:015598  
**Unarmed Stage Combat**
Provides a study of unarmed combat for the stage from both the classic and contemporary approaches to staging violence. Techniques for punches, slaps, kicks, falls, and rolls will be covered. Lecture: 3.0 credits (45 contact hours).

Components: Lecture
Attributes: Other

THA 260(3)  Course ID:000017  
**Stagecraft**
Provides a study of theory, principles and techniques of scenic design and construction. Includes assignments in practical applications. Lecture: 2.0 credit hours (30 contact hours) Lab: 1.0 credit hour (75 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

THA 283(3)  Course ID:000111  
**American Theatre**
Surveys American theatre history, giving particular emphasis to the late nineteenth and twentieth centuries, examining both theatre practice and dramaturgy and placing them within an historical, social, and cultural context. Lecture: 3 credits (45 contact hours).

Components: Lecture
Attributes: AH - Arts and Humanities

TLH  Telehealth Technician Assistant

**TLH 200(4.5)  Course ID:016939**
**Telehealth Patient Care**
The course will prepare students for a scope of practice in telehealth patient care using electronic communication from one site to another to provide clinical health care at a distance. The course is designed to overcome barriers of time and distance to deliver healthcare services. Lecture: 2.0 credits (30 contact hours), Laboratory: 1.0 credits (30 contact hours). Clinical: 1.5 hours (67.5 contact hours).

Components: Clinical, Laboratory
Attributes: Technical

TRU  Truck Driving

**TRU 100(6)  Course ID:002092**
**Truck Driving**
The purpose of the program is to prepare individuals as professional drivers for the truck driving industry. The course content is designed to familiarize students with the fundamental and operational procedures to become professional truck drivers. This is the entire curriculum. It is not divided into individual courses. Pre-requisite: CDL Permit. Lecture/Lab: 6 credits (150 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

UST  Unmanned Systems Technology

**UST 100(3)  Course ID:017195**
**Intro to Unmanned Systems Technology**
Examine the foundations of unmanned systems technology (UST), including history, elemental systems including payloads, data links, ground support equipment, classes of unmanned systems, categories, basic components, applications, mission planning and control, and launch/ recovery systems. Lecture: 3 credit hours (45 contact hours).

Components: Lecture
Attributes: Technical

**UST 102(1)  Course ID:017196**
**UST Career Exploration**
Explore different careers where the small unmanned systems are utilized. Identify specific fields of interest in which small unmanned systems are used and explain how the technology is integrated into the field. Lecture: 1 credit hour (15 contact hours).

Components: Lecture
Attributes: Technical

**UST 105(3)  Course ID:017197**
**Unmanned Systems Safety and Regulations**
Explains the current legal considerations of unmanned systems technology operations, provides an outlook on future considerations, and informs students on existing and trending unmanned systems technology related safety standards and regulations. Lecture: 3 credit hours (45 contact hours).

Components: Lecture
Attributes: Technical

**UST 170(3)  Course ID:017198**
**Drone Media Applications**
Utilizes small unmanned systems to record events related to photography and real estate. Pre-requisite: UST 107 or Consent of Instructor. Lecture: 3 credit hours (45 contact hours).

Components: Lecture
Attributes: Technical

**UST 200(4)  Course ID:017306**
**Drone Fabrication and Repair**
Introduces drone fabrication, including safety principals, component selection, heating applications, and basic measurements using the metric system. Emphasizes designing, construction, testing, troubleshooting, and repairing of drones. Pre-requisite: College Ready in all areas. Pre-requisite or Co-requisite: UST 100. Lecture: 3 credits (45 contact hours). Lab: 1 credit (30 contact hours).

Components: Laboratory, Lecture
Attributes: Technical

**UST 220(2)  Course ID:017200**
**First Responder Applications**
Examine fundamental principles of unmanned systems technologies, capabilities, regulations, legal responsibilities, cost and benefit consideration for potential use in law enforcement, fire, rescue, emergency medical and disaster response applications. Pre-requisite: UST 107 or Consent of Instructor. Lecture: 2 credit hours (30 contact hours).

Components: Lecture
Attributes: Technical
VCA 102(3) Course ID:002108
Fundamentals of Drawing
Introduces basic drawing skills and concepts as it relates to graphic design. Emphasizes how to create form in space and to draw in proper perspective for reproduction purposes. Students must receive a letter grade of "C" or better. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical
VCA 105(3) Course ID:016768
Drawing Concepts
Develops drawing skills and illustration concepts as they apply to graphic design. Emphasizes how to create form in space and to draw in proper perspective for reproduction purposes. Students must receive a final grade of "C" or better to advance in all Visual Communication courses. Lecture/Lab: 3.0 credits (60 contact hours).
Components: Lecture Attributes: Technical
VCA 106(3) Course ID:002113
Creative Typographical Design
Explores the use of type as a major element of design to solve visual communication problems. Includes the use of layout markers to creatively manipulate type forms and produce interesting, attractive type-only designs. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Technical
VCA 108(3) Course ID:002110
Digital Color Theory
Explores the visual dynamics of color as it relates to graphic design, including the basic characteristics of color; hue, value, and saturation. Explores color perception and 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 credits (45 contact hours).
Components: Lecture Attributes: Technical
VCA 120(3) Course ID:002116
Digital Photography I
Introduces the skills and techniques to capture and process digital photographs. Emphasizes basic digital camera operations and lighting techniques. Includes proper techniques to import and organize photographs. Introduces Basic Photoshop skills to manipulate and enhance digital photographs. Includes discussions on appropriate resolutions and file formats. Students must receive a letter grade of "C" or better. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical
VCA 131(3) Course ID:016774
Digital Photography II
Explores advanced skills and techniques to capture digital photographs using various camera functions and lenses. Includes proper scanning techniques and file formats. Explores advanced skills in Adobe Photoshop to manipulate photographs for interesting compositions. Introduces RAW shooting and Camera RAW in Photoshop. Explores proper presentation skills for professional photography displays. Students must receive a final grade of 'C' or better to advance in all Visual Communication courses. Pre-requisite: VCA 120 and VCC 166. Lecture/Lab: 3.0 credits (90 contact hours)
Components: Lecture Attributes: Technical
VCA 132(3) Course ID:000201
Advertising Design I
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 240(3) Course ID:008213
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:008453
Advertising Design
Explores and reviews the role of advertising in the marketing mix, and the function of major media forms. Uses a creative brief process to research, create, and design promotional concepts that meet assignment specifications. Explores legal strategies involved in advertising. Students must receive a letter grade of "C" or better. Pre-requisite: VCA 151 with a grade of C or better or Consent of Instructor. Lecture/Lab: 3.0 credits (90 contact hours)
Components: Lecture Attributes: Technical
VCA 251(3) Course ID:003584
Digital Filmmaking III
Provides training in single-person video production with an emphasis on Electronic News Gathering style of video. Covers news interviews, TV commercials, and documentaries. Pre-requisite: VCA 152 with a grade of C or better or Consent of Instructor. Lecture/Lab: 3.0 credits (90 contact hours)
Components: Laboratory, Lecture Attributes: Technical
VCA 252(3) Course ID:003585
Digital Filmmaking IV
Provides training in single-person video production with an emphasis on Filmmaker style video production, story telling, TV commercials, and documentaries. Pre-requisite: VCA 251 with a grade of C or better or Consent of Instructor. Lecture: 2.0 credits (30 contact hours). Laboratory: 1.0 credit (30 contact hours)
Components: Laboratory, Lecture Attributes: Technical
VCA 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
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<th>Course ID:002120</th>
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<tr>
<td><strong>VCA 255(3)</strong> Corporate Design</td>
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<tr>
<td><strong>Course ID:002120</strong> Corporate Design</td>
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<td>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 &quot;C&quot; 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).</td>
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<th>Course ID:00208</th>
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<tr>
<td><strong>VCA 260(4) Commercial Photography III</strong></td>
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<tr>
<td><strong>Course ID:00208</strong> Commercial Photography III</td>
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<tr>
<td>Continues Commercial Photography II. Applies principles and techniques with emphasis on digital color photographic illustrations captured in the studio and on location. Begins use of lens perspective controls on the camera. Pre-requisite: VCA 161 with a grade of C or better or consent of instructor. Lecture/Lab: 4.0 credits (90 contact hours).</td>
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<tr>
<td><strong>VCA 261(4) Commercial Photography IV</strong></td>
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<tr>
<td><strong>Course ID:00209</strong> Commercial Photography IV</td>
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<tr>
<td>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 &quot;C&quot; or better or consent of instructor. Lecture/Lab: 4.0 credits (90 contact hours).</td>
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<tr>
<td><strong>VCA 270(4) Advertising Design III</strong></td>
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<tr>
<td><strong>Course ID:00214</strong> Advertising Design III</td>
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<td>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 271 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).</td>
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<tr>
<td><strong>VCA 271(4) Advertising Design IV</strong></td>
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<tr>
<td><strong>Course ID:00215</strong> Advertising Design IV</td>
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<td>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).</td>
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<th>Course ID:00216</th>
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<tr>
<td><strong>VCA 280(2) Instructor Consent Required Professional Portfolio Development</strong></td>
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<tr>
<td><strong>Course ID:00216</strong> Instructor Consent Required Professional Portfolio Development</td>
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<tr>
<td>Introduce students to proper assembly of a professional portfolio and presentation skills. Students will refine work created in previous classes, identify strengths and weaknesses in their work, create a self-promotional package, attend mock interviews and participate in portfolio exhibit. Students must receive a letter grade of &quot;C&quot; 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).</td>
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<td><strong>VCA 290(3) Instructor Consent Required Folio Seminar</strong></td>
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<td><strong>Course ID:00205</strong> Instructor Consent Required Folio Seminar</td>
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<tr>
<td>Prepares advanced design and photography students to complete a professional portfolio. Explores job interview techniques to help students understand their responsibilities in seeking positions. Lecture: 2 credits (30 contact hours); Laboratory: 1 credit (30 contact hours). Pre-requisite: Consent of Instructor.</td>
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<tr>
<th>Course ID:00210</th>
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<tbody>
<tr>
<td><strong>VCA 298(2 - 6) Practicum</strong></td>
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<tr>
<td><strong>Course ID:00210</strong> Practicum</td>
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<tr>
<td>Incorporates and applies skills and techniques previously learned in the classroom and commercial art laboratory. Provides practical experience in a variety of commercial art establishments in the community. Pre-requisite: VCA 280, VCA 261 or VCA 271 with a grade of C or greater or Consent of Instructor. Lecture: 1 credits (15 contact hours) Lab/Practicum: 3 credits (150 contact hours/50:1 ratio)</td>
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<tr>
<th>Course ID:004455</th>
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<tbody>
<tr>
<td><strong>VCC 100(3) Introduction to Visual Communication</strong></td>
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<tr>
<td><strong>Course ID:004455</strong> Introduction to Visual Communication</td>
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<tr>
<td>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 &quot;C&quot; or better. Lecture: 3.0 credits (45 contact hours).</td>
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<th>Course ID:004458</th>
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<tbody>
<tr>
<td><strong>VCC 105(3) Fundamentals of Typography</strong></td>
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<tr>
<td><strong>Course ID:004458</strong> Fundamentals of Typography</td>
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<tr>
<td>Explores the use of type as a major element of design. Students become skilled in selecting appropriate type styles and fonts for a variety of media. Provides experience in using type as a creative tool to produce interesting, type-only designs. Introduces the elements and principles of design. Students must receive a letter grade of &quot;C&quot; or better. Lecture: 3.0 credits (45 contact hours).</td>
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<tr>
<th>Course ID:016769</th>
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<tbody>
<tr>
<td><strong>VCA 106(3) Fundamentals of Typography</strong></td>
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<tr>
<td><strong>Course ID:016769</strong> Fundamentals of Typography</td>
</tr>
<tr>
<td>Explores the use of type as a major element of design. Students become skilled in selecting appropriate type styles and fonts for a variety of media. Provides experience in using type as a creative tool to produce interesting, type-only designs. Applies elements and principles of design. Students must receive a final grade of &quot;C&quot; or better to advance in all Visual Communication courses. Lecture/Lab: 3.0 credits (90 contact hours).</td>
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<tr>
<th>Course ID:002111</th>
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<tr>
<td><strong>VCC 110(3) Design Concepts</strong></td>
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<tr>
<td><strong>Course ID:002111</strong> Design Concepts</td>
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<tr>
<td>Explore the elements and principles of design to develop skills in producing creative ideas and designs for various media forms. Apply the design process to advertising and marketing strategies that includes legal issues, media strategies, and customer behavior. Students must receive a letter grade of &quot;C&quot; or better to advance in all Visual Communication courses. Pre-requisite: VCC 105 or Co-requisite: VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).</td>
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<th>Course ID:006859</th>
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<tr>
<td><strong>VCC 125(3) Computer Graphics I</strong></td>
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<tr>
<td><strong>Course ID:006859</strong> Computer Graphics I</td>
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<tr>
<td>Introduces students to computer technologies that are specific to the visual communication industry and fulfills the digital literacy requirements. Develops primary skills using software applications for page layout, illustration, and digital imaging. Students must complete with a final grade of &quot;C&quot; or better to advance in all Visual Communication courses. Lecture/Lab: 3.0 credits (90 contact hours).</td>
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<tr>
<th>Course ID:005731</th>
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<tbody>
<tr>
<td><strong>VCC 210(3) Production Design I</strong></td>
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<tr>
<td><strong>Course ID:005731</strong> Production Design I</td>
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<tr>
<td>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 &quot;C&quot; or better to advance in all Visual Communication courses. Pre-requisite: VCC 110 &amp; VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).</td>
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VCC 216(3)  Course ID:006650
Production Design II
Introduces students to the technologies of pad printing and screen printing. Provides students with knowledge and training of various equipment and procedures to properly prepare graphics for these printing technologies. Provides students with training in appropriate software applications used to design and prepare graphics or a variety of substrates and promotional items. Students must receive a final grade of "C" or better to advance in all Visual Communication courses. Pre-requisite Or Co-requisite: VCC 110 & VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCC 218(3)  Course ID:006661
Production Design III
Provides basic knowledge of the steps and procedures used to prepare, troubleshoot, and correct files for digital printing. Provides students with the basic skills to produce and utilize PDF files. Provides knowledge in the importance of proper imposition and page-layout of various publications. Provides knowledge and training of various finishing and binding techniques used in the industry. Students must receive a final grade of "C" or better to Advance in all Visual Communication courses. Pre-requisite: VCC 110 & VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Integrated Laboratory, Integrated Lecture Attributes: Technical

VCC 220(3)  Course ID:004473
InDesign Basics
Develops skills in page design and layout using Adobe InDesign software. Apply concepts and mechanics of page layout to create a variety of publications from single page to multi-page documents. Students must receive a letter grade of "C" or better to advance in all Visual Communication courses. Pre-requisite: Digital Literacy or VCC 125. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCC 230(3)  Course ID:004462
Instructor Consent Required Advanced InDesign
Provides advanced skills in page design and layout using Adobe InDesign software. Design and creation of a variety of complex and multi-page documents will be the focus of this course. Students must receive a final grade of "C" or better. Pre-requisite: VCC 220. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Integrated Laboratory, Integrated Lecture Attributes: Technical

VCC 235(3)  Course ID:016770
Graphic Design I
Explores the use of elements and principles of design in the creative ideation process. Uses the creative brief process to research, design, and create corporate identities, logos, promotional items, collateral materials and advertising. Students must receive a letter grade of "C" or better to advance in all Visual Communication courses. Pre-requisite: VCC 110 & VCC 215. Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCC 245(3)  Course ID:016771
Graphic Design II
Explores advanced techniques in the creative ideation process to design professional corporate identites, product labels, promotional items, collateral materials, signage and advertising campaigns. Emphasizes the use of graphics standards for corporate branding. Defines industry standards and specifications for product labels. Students must receive a letter grade of "C" or better to advance in all Visual Communication courses. Pre-requisite: VCC 235, Lecture/Lab: 3.0 credits (90 contact hours).
Components: Lecture Attributes: Technical

VCC 255(3)  Course ID:016772
Emerging Media Design
Explores latest trends of new media technology related to the visual communication field. Topics will be specified by instructor according to latest trends in the region that could include social media, interactive media, advertising and marketing trends and a variety of media technologies. Pre-requisite: VCC 110 and VCC 125. Integrated Lecture/ Lab: 3 credits (90 contact hours).
Components: Integrated Laboratory, Integrated Lecture Attributes: Technical

VCC 260(3)  Course ID:001509
Instructor Consent Required
Computer Graphics II
Provides advanced skills in computer graphics using Adobe InDesign, Photoshop, and Illustrator. Create a variety of complex designs and multi-page documents will be the focus of this course. Students must receive a letter grade of "C" or better to advance in all Visual Communication courses. Pre-requisite: VCC 110 and VCC 125 or Permission of Instructor. Lecture/Lab: 3.0 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 285(3)  Course ID:017318
Production Design IV
Introduces concepts, vocabulary, and processes used in relation to design and production of vehicle wraps, wall wraps, and other large format graphics. Provides knowledge in the operation of wide format printers, laminators, and vinyl cutters. Covers substrates and laminates for various applications, tools and supplies for preparation and installation of printed graphics, and techniques used to install graphics. Provides students with knowledge and training in design and RIP software used to produce graphics. Students will troubleshoot files and production workflow. Pre-requisite: VCC 110, VCC 125, VCC 214. Integrated Lecture/Lab: 3 credits (90 contact hours).
Components: Integrated Laboratory, Integrated Lecture Attributes: Technical

VCC 297(3)  Course ID:004469
Instructor Consent Required
Internship
Provides supervised on-the-job work experience related to the students educational objectives. Students participating in Internships do not receive compensation for their work. Co-Op/Internship: 3 credits (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. Student participating in the Practicum do not receive compensation. Practicum/Internship: 3 credits (180 contact hours). Pre-requisite: Permission of Instructor. Components: Practicum Attributes: Technical

VCM 110(3)  Course ID:004453
Fundamentals of Animation
Explores the fundamentals of 2-D animation through history, theory and practical application. Covers the basic concepts of animation, including: character design and development, character environment, and storytelling. Students must receive a letter grade of "C" or better. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

VCM 115(3)  Course ID:004452
2-D Animation
Introduces basic computer animation using industry standard software. Uses software to create 2-D animations for various multi-media 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
Prepresents techniques for digital audio and video acquisition, equipment, and editing software. Emphasis on planning and creating storyboards for digital video project from conception to final product. Students must receive a letter grade of "C" or better. Lecture/Lab: 3.0 credits (90 contact hours).

VCM 150(3)  Course ID:017076
Audio Production 1
Introduce basic technical skills, recording equipment, and vocabulary for audio production. Develop skills in evaluation and listening to audio recordings. Utilize industry software for audio recording and editing. Lecture: 3 credits (45 contact hours).

VCM 205(3)  Course ID:004454
Introduction to HTML
Introduces the creation of Web sites using hypertext markup language (HTML) and cascading style sheets (CSS). Students must receive a letter grade of "C" or better to advance in all Visual Communication courses. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical

VCM 210(3)  Course ID:004344
3-D Animation
Introduces the principles of animation. Uses commercial 3-D animation packages and storyboards to produce 3-D models and animations. Students must receive a letter grade of "C" or better. Pre-requisite Or Co-requisite: VCM 115. Lecture: 1.0 credit (15 contact hours); Lab: 2.0 credits (75 contact hours).
Components: Lecture Attributes: Technical

VCM 215(3)  Course ID:005143
After Effects
Introduces basic compositing techniques and motion graphics using Adobe AfterEffects. Emphasizes an understanding of pre-production for AfterEffects, green screen, lighting, key-framing, creating mattes, animating text, syncing to audio and exporting movies. Students must receive a letter grade of "C" or better. Lecture: 3.0 credits (45 contact hours).
Components: Lecture Attributes: Technical
VCM 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 sterile laboratory working environment, institute quality control programs, collect, process, store, and transport clinical biological specimens. Pre-requisite: VET 120 and VET 130. Co-requisite: VET 210 and VET 230. 
Lecture/Lab: 5.0 credits (135 contact hours).
Components: Lecture Attributes: Technical

VCM 230(5) Course ID:007432
Veterinary Lab Procedures II
Covers development, treatment, prevention, and control of infectious and non-infectious diseases. Develops skills in surgical nursing, anesthesia monitoring, critical care, emergency medicine, and radiographic techniques. Pre-requisite: VET 120 and VET 130. Co-requisite: VET 210 and VET 220. Lecture/Lab: 5.0 credits (135 contact hours).
Components: Lecture Attributes: Technical

VCM 240(5) Course ID:007433
Veterinary Lab Procedures III
Emphasizes lab animal care, advanced radiographic techniques, ultrasound, and clinical pathology. This course as a continuation of VET 230. Refine skills introduced in previous courses. Uses field trips to veterinary and research facilities when appropriate. Pre-requisite: VET 210, VET 220, and VET 230. Co-requisite: AGR 280 and VET 250. Lecture/Lab: 5.0 credits (135 contact hours).
Components: Lecture Attributes: Technical

WGS Course ID:000015
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

WGS 201(3) Course ID:000092
Introduction to Women's and Gender Studies in the Arts and Humanities
Introduces women's and gender studies from a humanities perspective, using a cross-cultural and interdisciplinary approach including art and literature. Examines issues and problems of women in contemporary society through the lens of race, gender, class, and socio-political spheres. Lecture: 3 credits (45 contact hours).
Components: Lecture Attributes: Cultural Studies, AH - Arts and Humanities
WLD 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 processes and techniques, special properties of metals, and metallurgy. Shop safety and equipment use are also covered. Lecture: 2 credits (30 contact hours) Co-requisite: WLD 101 or Consent of Instructor.
Components: Lecture Attributes: Technical

WLD 101(2) Course ID:004576
Oxy-Fuel Systems Lab
Manipulative skills necessary to weld and cut plate and pipe in all positions, as well as brazing, braze welding, and gouging. Lab: 2 credits (60 contact hours/30:1 ratio) Co-requisite: WLD 100 or Consent of Instructor.
Components: Laboratory Attributes: Technical

WLD 110(2) Course ID:004605
Cutting Processes
A working knowledge of various cutting processes used by the welding industry. Will include, but is not limited to, safety, theory of operation, setup and operating techniques, troubleshooting and making minor equipment repairs, terms and definitions, identification, evaluation, repair and prevention of discontinuities of cut surfaces. Includes oxy-fuel cutting, plasma arc cutting, exothermic cutting, air carbon arc cutting, shielded metal arc cutting, and mechanical cutting process. Lecture: 2 credits (30 contact hours) Co-requisite: WLD 111 or Consent of Instructor.
Components: Lecture Attributes: Technical

WLD 111(3) Course ID:004577
Cutting Processes Lab
Designed to provide the student with practical experience to become proficient in the use of various metal cutting processes. Safety, setup, and operating techniques are employed. Students will troubleshoot and make minor repairs to equipment. Students will also learn to identify, repair, and prevent reoccurrence of cut surface discontinuities. Processes shall include, but not limited to: OFC, PAC, AAC, and mechanical methods. Various materials will be used where appropriate. Lab: 3 credits (90 contact hours/30:1 ratio) Co-requisite: WLD 110 or Consent of Instructor.
Components: Laboratory Attributes: Technical

WLD 120(2) Course ID:004600
Shielded Metal Arc Welding
Teaches students the identification, inspection, and maintenance of SMAW electrodes; principles of SMAW, the effects of variables on the SMAW process to weld plate and pipe; and metallurgy. Lecture: 2 credits (30 contact hours) Co-requisite: WLD 121 or Consent of Instructor.
Components: Lecture Attributes: Technical

WLD 121(3) Course ID:004578
Shielded Metal Arc Welding Fillet Lab
Provides laboratory experiences in which the student acquires the manipulative skills to perform fillet welds in all positions. Lab: 3 credits (90 contact hours/30:1 ratio) Co-requisite: WLD 120 or Consent of Instructor.
Components: Laboratory Attributes: Technical

WLD 123(3) Course ID:004599
Shielded Metal Arc Welding Groove with Backing Lab
Provides experiences in which students acquire the manipulative skills to do groove welds in all positions with backing. Lab: 3 credits (90 contact hours/30:1 ratio) Co-requisite: WLD 120 and 121 or Consent of Instructor.
Components: Laboratory Attributes: Technical

WLD 130(2) Course ID:004579
Gas Tungsten Arc Welding
Identification, inspection, and maintenance of GTAW machines; identification, selection and storage of GTAW electrodes; principles of GTAW; the effects of variables on the GTAW process; and metallurgy. This course also teaches the theory and application of Plasma Arc Cutting. Co-requisite: WLD 131 or Consent of Instructor. Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Technical

WLD 131(3) Course ID:004580
Gas Tungsten Arc Welding Fillet Lab
Teaches the necessary manipulative skills needed to apply the Gas Tungsten Arc on various joint designs on plate with both ferrous and non-ferrous metals. Plasma Arc cutting included. Co-requisite: WLD 130 or Consent of Instructor. Laboratory: 3 credits (90 contact hours/30:1 ratio).
Components: Laboratory Attributes: Technical

WLD 133(3) Course ID:004581
Gas Tungsten Arc Welding Groove Lab
Teaches the method of operation and application of the gas tungsten arc welding process for welding groove welds in both ferrous and non-ferrous plate in all positions. Pre-requisite: WLD 130 or Consent of Instructor. Laboratory: 3 credits (90 contact hours/30:1 ratio).
Components: Laboratory Attributes: Technical

WLD 140(2) Course ID:004582
Gas Metal Arc Welding
Identification, inspection, and maintenance of GMAW machines; identification, selection, and storage of GMAW electrodes; principles of GMAW; and the effects of variables on the GMAW process. Theory and applications of related processes such as FCAW and SAW and metallurgy are also included. Lecture: 2 credits (30 contact hours).
Components: Lecture Attributes: Technical

WLD 141(3) Course ID:004583
Gas Metal Arc Welding Fillet Lab
Teaches the practical application and manipulative skills of Gas Metal Arc Welding and the proper safety situations needed in this process. Both ferrous and non-ferrous metals will be covered, as well as various joint designs on plate in all positions. Co-requisite: WLD 140 or Consent of Instructor. Laboratory: 3 credits (90 contact hours/30:1 ratio).
Components: Laboratory Attributes: Technical

WLD 143(3) Course ID:004584
Gas Metal Arc Welding Groove Lab
Teaches the method of operation and application of the gas metal arc welding process for welding groove welds in both ferrous and non-ferrous plate in all positions using both short circuiting and spray transfer where appropriate. Pre-requisite: WLD 140 or Consent of Instructor. Laboratory: 3 credits (90 contact hours/30:1 ratio).
Components: Laboratory Attributes: Technical

WLD 145(1) Course ID:004586
Gas Metal Arc Welding Aluminum Lab
Teaches welding aluminum using the GMAW process. Fillets and groove welds are made in all positions in both plate and pipe. Short Circuiting and Spray transfers are used where appropriate. Pre-requisite: WLD 140 or Consent of Instructor. Laboratory: 1 credit (30 contact hours/30:1 ratio).
Components: Laboratory Attributes: Technical

WLD 147(1) Course ID:004585
Flux Cored Arc Welding Lab
Acquaints the student with the method of operation and application of the flux cored welding system. Pre-requisite: WLD 140 or Consent of Instructor. Laboratory: 1 credit (30 contact hours/30:1 ratio).
Components: Laboratory Attributes: Technical

WLD 151(2) Course ID:004603
Basic Welding A
Introduction to welding, cutting processes, and related equipment. Basic setup, operation, and related safety are applied. Lecture: 1 credit (15 contact hours). Laboratory: 1 credit (30 contact hours/30:1 ratio). Components: Laboratory, Lecture Attributes: Technical

WLD 152(5) Course ID:004441
Basic Welding B
An introduction to common cutting and welding processes used in industry. Theory, setup, operation, and related safety are applied. Lecture: 2 credits (30 contact hours). Laboratory: 3 credits (90 contact hours/30:1 ratio). Components: Laboratory, Lecture Attributes: Technical

WLD 161(1) Course ID:004602
Submerged Arc Welding Lab
Designed to provide the student with an understanding of SAW, setup, maintenance, and consumable identification. Includes practice in basic SAW principles and techniques related to the field of study. Laboratory: 1 credit (30 contact hours/30:1 ratio). Pre-requisite: WLD 140 or Consent of Instructor.
Components: Laboratory Attributes: Technical

WLD 170(2) Course ID:004587
Blueprint Reading for Welding
Provides a study of occupationally specific prints for welders. Advanced study of multi-view drawings, assembly drawings, datum dimensions, numerical control drawings, sheet metal prints, castings and forgings, instrumentation and control charts and diagrams, working drawings, geometric dimensioning and tolerancing and use of reference materials and books are included. Occupational specifics including welding drawings, symbols, joint types, grooves, pipe welding symbols, testing symbols and specification interpretations are stressed. Lecture: 2 credits (30 contact hours) Co-requisite: WLD 171 or Consent of Instructor.
Components: Lecture Attributes: Technical

WLD 171(3) Course ID:004588
Blueprint Reading for Welding Lab
Provides a study of the fabrication process through computer modeling systems and creation of prints or through practice fabricating from a blueprint. Allows students to read and fabricate from detail prints, control distortion during fabrication, and follow proper welding sequence. Provides the option to generate detailed prints, create digital files, and generate work detailing the proper welding sequences. Utilizes welding symbols and study weld sizes and strengths. Lab: 3 credits (90 contact hours/30:1 ratio). Co-requisite: WLD 170 or Consent of Instructor.
Components: Laboratory Attributes: Technical

WLD 181(1) Course ID:004601
Advanced Welding Systems Lab
Provides students with an understanding of the fabrication process through computer modeling systems and creation of prints or through practice fabricating from a blueprint. Allows students to read and fabricate from detail prints, control distortion during fabrication, and follow proper welding sequence. Provides the option to generate detailed prints, create digital files, and generate work detailing the proper welding sequences. Utilizes welding symbols and study weld sizes and strengths. Lab: 3 credits (90 contact hours/30:1 ratio). Co-requisite: WLD 170 or Consent of Instructor.
Components: Laboratory Attributes: Technical

WLD 198(1 - 6) Course ID:004573
Special Topics in Welding
Various Welding Technology topics, issues and trends will be addressed. Topics may vary from semester to semester at the discretion of the instructor; course may be repeated with different topics to a maximum of six credit hours. Lecture: Varies. Laboratory: Varies. Pre-requisite: Consent of Instructor.
Components: Lecture Attributes: Technical
WLD 220(2) Course ID:004589
Welding Certification
Provides the student with a working knowledge of certification encountered in welding. The student will start with developing a WPS, qualify the WPS, and qualify personnel. Documents used in welding certification are developed and used. Co-requisite: WLD 221 or Consent of Instructor. Lecture: 2 credits (30 contact hours).
Components: Lecture
Attributes: Technical

WLD 221(3) Course ID:004590
Welding Certification Lab
Provides student an opportunity to test on all types of welding for certification standards. Laboratory: 3 credits (90 contact hours/30:1 ratio). Co-requisite: WLD 220 or Consent of Instructor.
Components: Laboratory
Attributes: Technical

WLD 225(3) Course ID:004591
Shielded Metal Arc Welding Pipe Lab B
Designed to build upon SMAW Plate Lab I & II. Offers the student the opportunity to advance skills in the practical aspects of vee-butt plate welding using SMAW. Lab: 3 credits (90 contact hours/30:1 ratio). Pre-requisite: WLD 120 or 121 or Consent of Instructor.
Components: Laboratory
Attributes: Technical

WLD 227(3) Course ID:004592
Shielded Metal Arc Welding Pipe Lab A
Teaches the required manipulative skills to arc weld pipe using mild steel electrodes in the 2G and 5G positions including proper pipe preparations, electrodes, safety precautions, and welding sequences. Fillet welds on pipe joints are also included in 2F, 2FR, 4F, and 5F positions. Lab: 3 credits (90 contact hours/30:1 ratio). Pre-requisite: WLD 225 or Consent of Instructor.
Components: Laboratory
Attributes: Technical

WLD 229(3) Course ID:004593
Shielded Metal Arc Welding Pipe Lab B
Teaches the required manipulative skills to arc weld pipe using mild steel electrodes in the 6G position including proper pipe preparations, electrodes, safety precautions, and welding sequences. Lab: 3 credits (90 contact hours/30:1 ratio). Pre-requisite: WLD 225 or Consent of Instructor.
Components: Laboratory
Attributes: Technical

WLD 235(3) Course ID:004594
Gas tungsten arc welding pipe Lab A
Teaches the method of operation and application of the gas tungsten arc welding system for welding of both ferrous and non-ferrous pipe in 2G and 5G positions. Lab: 3 credits (90 contact hours/30:1 ratio). Pre-requisite: WLD 133 or Consent of Instructor.
Components: Laboratory
Attributes: Technical

WLD 237(3) Course ID:004595
Gas tungsten arc welding pipe Lab B
Teaches the method of operation and application of the gas tungsten arc welding process for welding of both ferrous and non-ferrous pipe in 6G position. Lab: 3 credits (90 contact hours/30:1 ratio). Pre-requisite: WLD 133 or Consent of Instructor.
Components: Laboratory
Attributes: Technical

WLD 239(1) Course ID:005310
Orbital Tube Welding
Familiarizes students with the orbital weld system, basic setup, operation, and safety. Pre-requisite: WLD 130 & WLD 131 or Permission of Instructor. Laboratory: 1 credit (30 contact hours).
Components: Laboratory
Attributes: Technical

WLD 245(3) Course ID:004604
Gas Metal Arc Welding Pipe Lab A
Acquaints the student with the operation and application of the Gas Metal Arc System for welding pipe in 2G and 5G positions. Laboratory: 3 credits (90 contact hours/30:1 ratio). Co-requisite: WLD 143 or Consent of Instructor.
Components: Laboratory
Attributes: Technical

WLD 247(3) Course ID:004597
Gas Metal Arc Welding Pipe Lab B
Acquaints the student with the operation and application of the Gas Metal Arc System for welding groove welds in pipe in 6G position. Lab: 3 credits (90 contact hours/30:1 ratio). Pre-requisite: WLD 143 or Consent of Instructor.
Components: Laboratory
Attributes: Technical

WLD 251(1 - 6) Course ID:004608
Welding Automation Lab
Provides students a working knowledge and hands-on experience using automatic welding equipment such as robotic welding systems, bug-o systems, and automated GTA welding systems. Pre-requisite Or Co-requisite: WLD 140/141, or consent of instructor. Lab: 1-6 credit hours (30-180 contact hours).
Components: Laboratory
Attributes: Technical

WLD 253(1) Course ID:004607
Pipe Fitting and Template Development Lab
Provides experiences in pipe template development and job knowledge and experience with the techniques and tools used to field layout, cut, and fit the various pipe joints that are used in pipe trades. Lab: 1 credit (30 contact hours/30:1 ratio).
Components: Laboratory
Attributes: Technical

WLD 259(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. Lab: 3 credits (90 contact hours/30:1 ratio).
Components: Laboratory
Attributes: Technical

WLD 298(1 - 6) Course ID:004598
Instructor Consent Required
Cooperative Education Program
Provides supervised on-the-job work experience related to the student's educational objectives. Pre-requisite: Consent of Instructor. Components: Practicum
Attributes: Technical

WMT 110(2) Course ID:002176
Technical Drawing and Blueprint Reading
Fundamentals of multiview and pictorial drafting techniques; and reading and interpreting architectural, furniture and cabinet drawings are the focus of this course. Students will apply blueprint reading skills by preparing materials and cutting lists for actual jobs. Lecture: 2 credits (60 contact hours).
Components: Lecture
Attributes: Technical

WMT 120(4) Course ID:002177
Wood Product Manufacturing
Fundamentals of wood processing and an overview of the secondary wood processing industry are covered in this course. The nature of wood, material selection, terminology, safety set-up, and operation of common woodworking equipment will be discussed. Each student will fabricate a wood product while being introduced to custom woodworking techniques, as well as mass production concepts related to product engineering. Lecture: 4 credits (120 contact hours).
Components: Lecture
Attributes: Technical

WMT 198(2 - 4) Course ID:002179
Instructor Consent Required
Practicum
The practicum provides supervised work experience related to the student's educational objective. Students participating in the practicum do not receive compensation.
Components: Lecture
Attributes: Technical

WMT 199(2) Course ID:002180
Instructor Consent Required
Cooperative Education
Co-op provides supervised work experience related to the student's educational objectives. Students participating in the cooperative education program receive compensation for their work. Pre-requisite: Permission of the Instructor, Co-Op: 2 credits (150 contact hours).
Components: Co-Op

WMT 240(4) Course ID:002185
Cabinet Making Technology
This course is an overview of the cabinet and store fixtures industries. Emphasis will be placed on the design and construction of face frame as well as frameless (32mm) systems. Each student will plan and build a vanity, kitchen cabinet or store fixture which utilizes contemporary casework techniques. Pre-requisite: WMT 110 and WMT 120. Lecture: 4 credits (120 contact hours).
Components: Lecture

WMT 250(4) Course ID:002186
Furniture Technology
Furniture design principles, structural considerations, joinery, fasteners, veneering, and use of specialized machines for complex operations are the focus of this course. Each student will plan and build a piece of furniture which includes at least one drawer, a door and some veneering. Pre-requisite: WMT 110 and WMT 120. Lecture: 4 credits (120 contact hours).
Components: Lecture

WMT 280(2) Course ID:002189
Instructor Consent Required
Estimating
This course is an introduction to estimating costs and materials for wood products. Special emphasis will be placed on projecting material and labor costs for custom wood products as well as mass produced items. Pre-requisite: Permission of the Instructor. Lecture: 2 credits (60 contact hours).
Components: Lecture

WMT 290(4) Course ID:002190
Instructor Consent Required
Advanced Wood Processing
This course is a capstone experience for advanced wood processing technicians involving the integration of computer aided design and world-class manufacturing of wood products. Pre-requisite: Permission of the Instructor. Lecture: 4 credits (120 contact hours).
Components: Lecture

WPP 200(3) Course ID:002193
Workplace Principles
Workplace Principles examines the changing workforce and the skills needed to adapt to constantly changing demands and expectations. The course includes but is not limited to problem solving, teamwork, time management, and self-management skills. Job-seeking and job-retention skills are taught through the development of resumes and job search materials. Maximum benefit is received if this course is taken in the latter part of the student's course work. Lecture: 3 credits (45 contact hours).
Components: Lecture
Attributes: Enrichment Course Other, Technical

WPP 2001(1) Course ID:016787
Soft Skills
Workplace Principles examines the changing workforce and the skills needed to adapt to constantly changing demands and expectations. The course includes but is not limited to problem solving, teamwork, time management, and self-management skills. Job-seeking and job-retention skills are taught through the development of resumes and job search materials. Maximum benefit is received if this course is taken in the latter part of the student's course work. Lecture: 1 credit (15 contact hours).
Components: Lecture
Attributes: Enrichment Course Other

361
Determination of Residency Status for Admission and Tuition Purposes

13 KAR 2.045.

Determination of residency status for admission and tuition assessment purposes.


STATUTORY AUTHORITY: KRS 164.020(8)

NECESSITY, FUNCTION, AND CONFORMITY: KRS 164.020(8) requires the Council on Postsecondary Education to determine tuition and approve the minimum qualifications for admission to a state postsecondary education institution and authorizes the Council to set different tuition amounts for residents of Kentucky and for nonresidents. This administrative regulation establishes the procedure and guidelines for determining the residency status of a student who is seeking admission to, or who is enrolled at, a state-supported postsecondary education institution.

Section 1. Definitions.

(1) "Academic term" means a division of the school year during which a course of studies is offered, and includes a semester, quarter, or single consolidated summer term as defined by the institution.

(2) "Continuous enrollment" means enrollment in a state-supported postsecondary education institution at the same degree level for consecutive terms, excluding summer term, since the beginning of the period for which continuous enrollment is claimed unless a sequence of continuous enrollment is broken due to extenuating circumstances beyond the student's control, such as serious personal illness or injury, or illness or death of a parent.

(3) "Degree level" means enrollment in a course or program that could result in the award of:
   (a) Certificate, diploma, or other program award at an institution;
   (b) Baccalaureate degree or lower, including enrollment in a course by a nondegree-seeking post baccalaureate student;
   (c) Graduate degree or graduate certification other than a first-professional degree in law, medicine, dentistry, or "Pharm. D"; or
   (d) Professional degree in law, medicine, dentistry, or "Pharm. D".

(4) "Dependent person" means a person who cannot demonstrate financial independence from parents or persons other than a spouse and who does not meet the criteria for independence established in Section 5 of this administrative regulation.

(5) "Determination of residency status" means the decision of a postsecondary education institution that results in the classification of a person as a Kentucky resident or as a nonresident for admission and tuition assessment purposes.

(6) "Domicile" means a person's true, fixed, and permanent home and is the place where the person intends to remain indefinitely, and to which the person expects to return if absent without intending to establish a new domicile elsewhere.

(7) "Full-time employment" means continuous employment for at least forty-eight (48) weeks at an average of at least thirty (30) hours per week.

(8) "Independent person" means a person who demonstrates financial independence from parents or persons other than a spouse and who meets the criteria for independence established in Section 5 of this administrative regulation.

(9) "Institution" means an entity defined by KRS 164.001(12) if the type of institution is not expressly stated and includes the Kentucky Virtual University, the Council on Postsecondary Education, and the Kentucky Higher Education Assistance Authority.

(10) "Kentucky resident" means a person determined by an institution for tuition purposes to be domiciled in, and a resident of, Kentucky as determined by this administrative regulation.

(11) "Nonresident" means a person who:
   (a) Is domiciled outside Kentucky;
   (b) Currently maintains legal residence outside Kentucky; or
   (c) Is not a Kentucky resident as determined by this administrative regulation.

(12) "Parent" means one (1) of the following:
   (a) A person's father or mother; or
   (b) A court-appointed legal guardian if:
      1. The guardianship is recognized by an appropriate court within the United States;
      2. There was a relinquishment of the rights of the parents; and
      3. The guardianship was not established primarily to confer Kentucky residency on the person.

(13) "Preponderance of the evidence" means the greater weight of evidence or evidence that is more credible and convincing to the mind.

(14) "Residence" means the place of abode of a person and the place where the person is physically present most of the time for a nontuition purpose in accordance with Section 3 of this administrative regulation.

(15) "Student financial aid" means all forms of payments to a student if one (1) condition of receiving the payment is the enrollment of the student at an institution, and includes student employment by the institution or a graduate assistantship.

(16) "Sustenance" means:
   (a) Living expenses, such as room, board, maintenance, and transportation; and
   (b) Educational expenses, such as tuition, fees, books, and supplies.

Section 2. Scope.

(1) State-supported postsecondary education institutions were established and are maintained by the Commonwealth of Kentucky primarily for the benefit of qualified residents of Kentucky. The substantial commitment of public resources to postsecondary education is predicated on the proposition that the state benefits significantly from the existence of an educated citizenry. As a matter of policy, access to postsecondary education shall be provided so far as feasible at reasonable cost to a qualified individual who is domiciled in Kentucky and who is a resident of Kentucky.

(2) In accordance with the duties established in KRS 164.020, the Council on Postsecondary Education may require a student who is neither domiciled in, nor a resident of, Kentucky to meet higher admission standards and to pay a higher level of tuition than resident students.

(3) Unless otherwise indicated, this administrative regulation shall apply to all student residency determinations, regardless of circumstances, including residency determinations made by:
   (a) The state-supported institutions for prospective and currently-enrolled students;
   (b) The Southern Regional Education Board for contract spaces;
   (c) Reciprocity agreements, if appropriate;
   (d) The Kentucky Virtual University;
   (e) Academic common market programs;
   (f) The Kentucky Educational Excellence Scholarship Program; and
   (g) Other state student financial aid programs, as appropriate.

Section 3. Determination of Residency Status: General Rules.

(1) A determination of residency shall include:
   (a) An initial determination of residency status by an institution:
      1. During the admission process;
      2. Upon enrollment in an institution for a specific academic term; or
      3. For admission into a specific academic program;
   (b) A reconsideration of a determination of residency status by an institution based upon a changed circumstance; or
   (c) A formal hearing conducted by an institution upon request of a student after other administrative procedures have been completed.

(2) An initial determination of residency status shall be based upon:
   (a) The facts in existence when the credentials established by an institution for admission for a specific academic term have been received and during the period of review by the institution;
   (b) Information derived from admissions materials;
   (c) If applicable, other materials required by an institution and consistent with this administrative regulation; and
   (d) Other information available to the institution from any source.

(3) An individual seeking a determination of Kentucky residency status shall demonstrate that status by a preponderance of the evidence.

(4) A determination of residency status shall be based upon verifiable circumstances or actions.

(5) Evidence and information cited as the basis for Kentucky domicile and residency shall accompany the application for a determination of residency status.

(6) A student classified as a nonresident shall retain that status until the student is officially reclassified by an institution.

(7) A student may apply for a review of a determination of residency status once for each academic term.

(8) If an institution has information that a student's residency status may be incorrect, the institution shall review and determine the student's correct residency status.
(9) If the Council on Postsecondary Education has information that an institution’s determination of residency status for a student may be incorrect, it may require the institution to review the circumstances and report the results of that review.

(10) An institution shall impose a penalty or sanction against a student who gives incorrect or misleading information to an institutional official, including payment of nonresident tuition for each academic term for which resident tuition was assessed based on an improper determination of residency status. The penalty or sanction may also include:

(a) Student discipline by the institution through a policy written and disseminated to students; or
(b) Criminal prosecution.

Section 4. Presumptions Regarding Residency Status.

(1) In making a determination of residency status, it shall be presumed that a person is a nonresident if:

(a) A person is, or seeks to be, an undergraduate student and admissions records show the student to be a graduate of an out-of-state high school within five (5) years prior to a request for a determination of residency status;
(b) A person’s admissions records indicate the student’s residence to be outside of Kentucky when the student applied for admission;
(c) A person moves to Kentucky primarily for the purpose of enrollment in an institution;
(d) A person moves to Kentucky and within twelve (12) months enrolls at an institution more than half time;
(e) A person has a continuous absence of one (1) year from Kentucky; or
(f) A person attended an out-of-state higher education institution during the past academic year and paid in-state tuition at that institution.

(2) A presumption arising from subsection (1) of this section shall only be overcome by preponderance of evidence sufficient to demonstrate that a person is domiciled in and is a resident of Kentucky.

Section 5. Determination of Whether a Student is Dependent or Independent.

(1) In a determination of residency status, an institution shall first determine whether a student is dependent or independent. This provision shall be predicated on the assumption that a dependent 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 when the determination is made:

(a) Whether the person has been claimed as a dependent on the federal or state tax returns of a parent or other person for the year preceding the date of application for a determination of residency status; or
(b) Whether the person is no longer claimed by a parent or other person as a dependent or an exemption for federal and state tax purposes; and
(c) Whether the person has financial earnings and resources independent of a person other than an independent spouse necessary to provide for the person’s own sustenance.

(3) An individual who enrolls at an institution immediately following graduation from high school and remains enrolled shall be presumed to be a dependent person unless the contrary is evident from the information submitted.

(4) Domicile may be inferred from the student’s permanent address, parent’s mailing address, or location of high school of graduation.

(5) Marriage to an independent person domiciled in and who is a resident of Kentucky shall be a factor considered by an institution in determining whether a student is dependent or independent.

(6) Financial assistance from, or a loan made by, a parent or family member other than an independent spouse, if used for sustenance of the student:

(a) Shall not be considered in establishing a student as independent; and
(b) Shall be a factor in establishing that a student is dependent.

Section 6. Effect of a Determination of Dependent Status on a Determination of Residency Status.

(1) The effect of a determination that a person is dependent shall be:

(a) The domicile and residency of a dependent person shall be the same as either parent. The domicile and residency of the parent shall be determined in the same manner as the domicile and residency of an independent person; and
(b) The domicile and residency of a dependent person whose parents are divorced, separated, or otherwise living apart shall be Kentucky if either parent is domiciled in and is a resident of Kentucky, regardless of which parent has legal custody or is entitled to claim that person as a dependent pursuant to federal or Kentucky income tax provisions.

(2) If the parent or parents of a dependent person are Kentucky residents and are domiciled in Kentucky, but subsequently move from the state:

(a) The dependent person shall be considered a resident of Kentucky while in continuous enrollment at the degree level in which currently enrolled; and
(b) The dependent person’s residency status shall be reassessed if continuous enrollment is broken or the current degree level is completed.

Section 7. Member or Former Member of Armed Forces of the United States, Spouse and Dependents; Effect on a Determination of Residency Status.

(1) A member, spouse, or dependent of a member whose domicile and residency was Kentucky when inducted into the Armed Forces of the United States, and who maintains Kentucky as home of record and permanent address, shall be entitled to Kentucky residency status:

(a) During the member’s time of active service; or
(b) If the member returns to this state within six (6) months of the date of the member’s discharge from active duty.

(2) A member of the armed services on active duty for more than thirty (30) days and who has a permanent duty station in Kentucky shall be classified as a Kentucky resident and shall be entitled to in-state tuition, as shall the spouse or a dependent child of the member.

(a) A member, spouse, or dependent of a member shall not lose Kentucky residency status if the member is transferred on military orders while the member, spouse, or dependent requesting the status is in continuous enrollment at the degree level in which currently enrolled.

(3) 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 has active duty status for a period of not less than thirty (30) days, the member shall be considered a Kentucky resident, as shall the spouse or a dependent child of the member.

(4) A person eligible for benefits under the federal Post-9/11 Veterans Educational Assistance Act of 2008, 38 U.S.C. 3301-3325, or any other educational benefits provided under Title 38 of the United States Code shall be entitled to Kentucky resident status for purposes of tuition charged at state-supported institutions.

(5) A person’s residency status established pursuant to this section shall be reassessed if the qualifying condition is terminated.

Section 8. Status of Nonresident Aliens; Visas and Immigration.

(1) A 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) Student discipline by the institution through a policy written and disseminated to students; or
(b) Criminal prosecution.

(2) If the parent or parents of a dependent person are Kentucky residents and are domiciled in Kentucky, but subsequently move from the state:

(a) The dependent person shall be considered a resident of Kentucky while in continuous enrollment at the degree level in which currently enrolled; and
(b) The dependent person’s residency status shall be reassessed if continuous enrollment is broken or the current degree level is completed.

Section 7. Member or Former Member of Armed Forces of the United States, Spouse and Dependents; Effect on a Determination of Residency Status.

(1) A member, spouse, or dependent of a member whose domicile and residency was Kentucky when inducted into the Armed Forces of the United States, and who maintains Kentucky as home of record and permanent address, shall be entitled to Kentucky residency status:

(a) During the member’s time of active service; or
(b) If the member returns to this state within six (6) months of the date of the member’s discharge from active duty.

(2) A member of the armed services on active duty for more than thirty (30) days and who has a permanent duty station in Kentucky shall be classified as a Kentucky resident and shall be entitled to in-state tuition, as shall the spouse or a dependent child of the member.

(a) A member, spouse, or dependent of a member shall not lose Kentucky residency status if the member is transferred on military orders while the member, spouse, or dependent requesting the status is in continuous enrollment at the degree level in which currently enrolled.

(3) 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 has active duty status for a period of not less than thirty (30) days, the member shall be considered a Kentucky resident, as shall the spouse or a dependent child of the member.

(4) A person eligible for benefits under the federal Post-9/11 Veterans Educational Assistance Act of 2008, 38 U.S.C. 3301-3325, or any other educational benefits provided under Title 38 of the United States Code shall be entitled to Kentucky resident status for purposes of tuition charged at state-supported institutions.

(5) A person’s residency status established pursuant to this section shall be reassessed if the qualifying condition is terminated.

Section 8. Status of Nonresident Aliens; Visas and Immigration.

(1)(a) A person holding a permanent residency visa or classified as a political refugee shall establish domicile and residency in the same manner as another person.

(b) Time spent in Kentucky and progress made in fulfilling the conditions of domicile and residency prior to obtaining permanent residency status shall be considered in establishing Kentucky domicile and residency.

(2) A person holding a nonimmigrant visa with designation A, E, G, H-1, H-4 if accompanying a person with an H-1 visa, I, K, L, N, R, shall establish domicile and residency the same as another person.

(3)(a) An independent person holding a nonimmigrant visa with designation B, C, D, 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, T, or TN shall not be classified as a Kentucky resident because that person does not have the capacity to remain in Kentucky indefinitely and therefore cannot form the requisite intent necessary to establish domicile as defined in Section 1(6) of this administrative regulation.

(b) A dependent person holding a visa as described in paragraph (a) of this subsection, but who is a dependent of a parent holding a visa as described in subsection (2) of this section, shall be considered as holding the visa of the parent.

(c) A dependent person holding a visa described in subsection (2) of this section or paragraph (a) of this subsection, if a parent is a citizen of the United States and is a resident of and domiciled in Kentucky, shall be a resident of Kentucky for the purposes of this administrative regulation.

(4) A person shall be a Kentucky resident for the purpose of this administrative regulation if the person graduated from a Kentucky high school and:

(a) Is an undocumented alien;
(b) Holds a visa listed in subsections (2) or (3)(a) of this section; or
(c) Is a dependent of a person who holds a visa listed in subsections (2) or (3)(a) of this section.

(5) Except as provided in paragraph (b) of this subsection, a person who has petitioned the federal government to reclassify visa status shall continue to be ineligible until the petition has been granted by the federal government.

(b) A person who has petitioned the federal government to reclassify his or her visa status based on marriage to a Kentucky resident and who can demonstrate that the petition has been filed and acknowledged by the federal government, may establish Kentucky domicile and residency at that time.

Section 9. Beneficiaries of a Kentucky Educational Savings Plan Trust.

A beneficiary of a Kentucky Educational Savings Plan Trust shall be granted residency status if the beneficiary meets the requirements of KRS 164A.330(6).
Section 10. Criteria Used in a Determination of Residence Status.

(1) A determination of Kentucky domicile and residency shall be based upon verifiable circumstances or actions.

(b) A single fact shall not be paramount, and each situation shall be evaluated to identify those facts essential to the determination of domicile and residency.

(c) A person shall not be determined to be a Kentucky resident by the performance of an act that is incidental to fulfilling an educational purpose or by an act performed as a matter of convenience.

(d) Mere physical presence in Kentucky, including living with a relative or friend, shall not be sufficient evidence of domicile and residency.

(e) A student or prospective student shall respond to all requests for information regarding domicile or residency requested by an institution.

(2) The following facts, although not conclusive, shall have probative value in their entirety and shall be individually weighted, appropriate to the facts and circumstances in each determination of residency:

(a) Acceptance of an offer of full-time employment or transfer to an employer in Kentucky or contiguous area while maintaining residence and domicile in Kentucky;

(b) Continuous physical presence in Kentucky while in a nonstudent status for the twelve (12) months immediately preceding the start of the academic term for which a classification of Kentucky residency is sought;

(c) Filing a Kentucky resident income tax return for the calendar year preceding the date of application for a change in residency status; or 2. Payment of Kentucky withholding taxes while employed during the calendar year for which a change in classification is sought;

(d) Full-time employment of at least one (1) year while living in Kentucky;

(e) Attendance as a full-time, nonresident student at an out-of-state institution based on a determination by that school that the person is a resident of Kentucky;

(f) Abandonment of a former domicile or residence and establishing domicile and residency in Kentucky with application to or attendance at an institution following and incidental to the change in domicile and residency;

(g) Obtaining licensing or certification for a professional and occupational purpose in Kentucky;

(h) Payment of real property taxes in Kentucky;

(i) Ownership of real property in Kentucky, if the property was used by the student as a residence preceding the date of application for a determination of residency status;

(j) Marriage of an independent student to a person who was domiciled in and a resident of Kentucky prior to the marriage; and

(k) The extent to which a student is dependent on student financial aid in order to provide basic sustenance.

(3) Except as provided in subsection (4) of this section, the following facts, because of the ease and convenience in completing them, shall have limited probative value in a determination that a person is domiciled in and is a resident of Kentucky:

(a) Kentucky automobile registration;

(b) Kentucky driver’s license;

(c) Registration as a Kentucky voter;

(d) Long-term lease of at least twelve (12) consecutive months of noncollege-related 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 Residence Status.

(1) If a person becomes independent or if the residency status of a parent or parents of a dependent person changes, an institution shall reassess residency either upon a request by the student or a review initiated by the institution.

(2) Upon transfer to a Kentucky institution, a student’s residency status shall be assessed by the receiving institution.

(3) A reconsideration of a determination of residency status for a dependent person shall be subject to the provisions for continuous enrollment, if applicable.

Section 12. Student Responsibilities.

(1) A student shall report under the proper residency classification, which includes the following actions:

(a) Raising a question concerning residency classification;

(b) Making application for change of residency classification with the designated office or person at the institution; and

(c) Notifying the designated office or person at the institution immediately upon a change in residency status.

Section 13. Institutional Responsibilities. Each institution shall:

(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 the 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; and

(b) Guarantees of due process to a student that includes:

1. The right of a student to be represented by legal counsel; and

2. The right of a student to present information and present testimony and information in support of a claim of Kentucky residency; and

(c) A recommendation to be issued by the hearing officer.

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.

An institution shall pay the cost for all residency determinations including the cost of a formal hearing.

(2) A student shall pay for the cost of all legal representation in support of the student’s claim of residency, (17 Ky.R. 2537; eff. 4-5-1991; Am. 22 Ky.R. 1656; 1988; eff. 5-16-1996; 23 Ky.R. 3380; 5797; 4099; eff. 6-16-1997; 24 Ky.R. 2136; 2705; 25 Ky.R. 51; eff. 7-13-1998; 25 Ky.R. 2177; 2577; 2827; eff. 6-7-1999; 749; 1238; eff. 11-12-2002; 36 Ky.R. 1083; 1951; 2033-M, eff. 4-2-2010; TAM eff. 11-20-2014; 41 Ky.R. 2108; 42 Ky.R. 9; eff. 7-13-2015; TAM 7-13-2015).
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<td>MA 109</td>
<td>College Algebra</td>
<td>MA 109</td>
<td>Analytical Geometry and Trigonometry</td>
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<td>MA 110</td>
<td>Contemporary Mathematics</td>
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<td>Analytical Geometry and Trigonometry</td>
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<td>MA 111</td>
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<td>Calculus I</td>
<td>MA 112</td>
<td>Trigonometry</td>
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<td>Calculus II</td>
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<td>Calculus II</td>
<td>MA 123</td>
<td>Elementary Calculus</td>
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<td>Applied Mathematics</td>
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<td>Mathematics for Middle &amp; Elementary Teachers I</td>
<td>MAT 115</td>
<td>Mathematics for Middle &amp; Elementary Teachers I</td>
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<td>MAT 121</td>
<td>Mathematics for Business</td>
<td>MAT 121</td>
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<td>Technical Mathematics</td>
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<td>MAT 201</td>
<td>Mathematics for Elementary Teachers</td>
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<td>Mathematical Problem Solving for Elementary Teachers</td>
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<td>MAT 213</td>
<td>Calculus III</td>
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<td>Mathematics for Middle &amp; Elementary Teachers II</td>
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<tr>
<td>MAT 121</td>
<td>Mathematics for Business</td>
<td>MAT 215</td>
<td>Mathematics for Middle &amp; Elementary Teachers II</td>
</tr>
<tr>
<td>MAT 125</td>
<td>Technical Mathematics</td>
<td>MAT 215</td>
<td>Mathematics for Middle &amp; Elementary Teachers II</td>
</tr>
<tr>
<td>MAT 151</td>
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<td>MAT 215</td>
<td>Mathematics for Middle &amp; Elementary Teachers II</td>
</tr>
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<td>MAT 152</td>
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<td>MAT 215</td>
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<td>MAT 211</td>
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<td>MAT 215</td>
<td>Mathematics for Middle &amp; Elementary Teachers II</td>
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<td>MAT 212</td>
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<td>MAT 215</td>
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<tr>
<td>STA 200</td>
<td>Statistics: A Force in Human Judgment</td>
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<td>Mathematics for Middle &amp; Elementary Teachers II</td>
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<td>STA 210</td>
<td>Statistics: A Force in Human Judgment</td>
<td>STA 291</td>
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<td>Statistical Methods</td>
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</table>
Historical Mathematics Course Transitions

Below is a table clarifying the math course transition that took place Fall 2004. Courses with the MT prefix that are below the 100-level are transitional courses. MT courses between 100 and 139 are specifically designed for occupational/technical programs. Courses numbered 140 and above are designed as transfer courses.

<table>
<thead>
<tr>
<th>New Course</th>
<th>Credit</th>
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<tr>
<td>MT 050 Dev. Math Workshop</td>
<td>1-2</td>
<td>None</td>
<td>MAH 065, MTH 199</td>
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<tr>
<td>MT 055 Pre-Algebra</td>
<td>3</td>
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<td>MAH 060, MTH 100</td>
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<tr>
<td>MT 065 Basic Algebra w/Measurement</td>
<td>3</td>
<td>MT 055</td>
<td>MAH 070, MTH 110,</td>
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<tr>
<td>MT 075 Pre-College Geometry</td>
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<td>MAH 075</td>
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<td>MT 100 College Algebra Workshop</td>
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<td>MAH 100</td>
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</tr>
<tr>
<td>MT 105 Business Math.</td>
<td>3</td>
<td>MT 065</td>
<td>MAH 121</td>
</tr>
<tr>
<td>MT 110 Applied Math.</td>
<td>3</td>
<td>MT 065</td>
<td>MAH 151</td>
</tr>
<tr>
<td>MT 115 Technical Math.</td>
<td>3</td>
<td>MT 065</td>
<td>MAH 125, MTH 120,</td>
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<tr>
<td>MT 120 Intermediate Algebra w/Applications</td>
<td>3</td>
<td>MT 065</td>
<td>MAH 083, MA 108, MTH 160</td>
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<tr>
<td>MT 122 Intermediate Algebra: A Functional Approach</td>
<td>4</td>
<td>MT 065</td>
<td>MAH 080</td>
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<tr>
<td>MT 125 Technical Algebra.&amp; Trigonometry</td>
<td>3</td>
<td>MT 065</td>
<td>MTH 170, MTH 175, MTH 101</td>
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<tr>
<td>MT 139 AAS Mathematics Application: (Topic)</td>
<td>1-3</td>
<td>MT 120 or MT 122</td>
<td>MT 107</td>
</tr>
<tr>
<td>MT 145 Contemporary College Mathematics</td>
<td>3</td>
<td>MT 120 or MT 122 or MT 125</td>
<td>MT 109</td>
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<td>MT 150 College Algebra</td>
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<td>MT 120 or MT 122 or MT 125</td>
<td>MT 109</td>
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<tr>
<td>MT 155 Trigonometry</td>
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<td>MT 190 Mathematics Workshop</td>
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## Biology Crosswalk

This table includes changes made to Biology courses effective Fall 2010.

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<td>Transitional Biology Courses</td>
<td>BIO 026</td>
<td>BSL 025</td>
<td>Orientation to College Biology</td>
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<td>General Education Biology Courses</td>
<td>BIO 112</td>
<td>BIO 103</td>
<td>Basic Ideas of Biology</td>
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<tr>
<td></td>
<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>
<td>BSL 100</td>
<td>Biology Laboratory I</td>
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<td></td>
<td>BIO 116</td>
<td>BSL 103</td>
<td>Biology II</td>
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<td></td>
<td>BIO 117</td>
<td>BSL 101</td>
<td>Biology Laboratory II</td>
</tr>
<tr>
<td></td>
<td>BIO 118</td>
<td>--------------</td>
<td>Microbes and Society</td>
</tr>
<tr>
<td></td>
<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>
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<td>PGY 206</td>
<td>Elementary Physiology</td>
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<td>Ecology Courses</td>
<td>BIO 120</td>
<td>BIO 102</td>
<td>Human Ecology</td>
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<td></td>
<td>BIO 121</td>
<td>-</td>
<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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<tr>
<td>Anatomy and Physiology Courses</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 139</td>
<td>BSL 111</td>
<td>Human Anatomy and Physiology II</td>
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<td>BIO 106/BSL 140</td>
<td>Botany</td>
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<td>BIO 141</td>
<td>BIO 106/BSL 140</td>
<td>Botany with Laboratory</td>
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<td>BIO 142</td>
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<td>Zoology with Laboratory</td>
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<td>BIO 153</td>
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<td>Molecular and Microbiology</td>
<td>BIO 220</td>
<td>BIO 204</td>
<td>The Genetic Perspective</td>
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<td>Courses</td>
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<td>Medical Microbiology</td>
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<td>BIO 224</td>
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<td>BSL 212</td>
<td>Medical Microbiology w/ Lab</td>
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<td>BIO 226</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>Selected/Special Topics</td>
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<td>BSL 295</td>
<td>Independent Investigation in Biology</td>
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<td>BIO 299</td>
<td>BSL 299</td>
<td>Selected Topics in Biology: Topic</td>
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# Crosswalk for Chemistry Courses

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<thead>
<tr>
<th>Approved Course Prefix/Number</th>
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<td>CHE 120</td>
<td>The Joy of Chemistry*</td>
<td>CHM 101</td>
<td>Chemistry: A Cultural Approach</td>
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<td>CHE 125</td>
<td>The Joy of Chemistry Laboratory*</td>
<td>NEW</td>
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<tr>
<td>CHE 130</td>
<td>Introductory General and Biological Chemistry*</td>
<td>CHM 100</td>
<td>Introductory General and Biological Chemistry</td>
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<tr>
<td>CHE 140</td>
<td>Introductory General Chemistry*</td>
<td>CHE 104</td>
<td>Introductory General Chemistry</td>
</tr>
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<td>CHE 145</td>
<td>Introductory General Chemistry Laboratory*</td>
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<td>Introductory General Chemistry Laboratory</td>
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<tr>
<td>CHE 150</td>
<td>Introduction to Organic and Biological Chemistry*</td>
<td>CHE 106</td>
<td>Introduction to Inorganic, Organic, and Biochemistry</td>
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<td>CHE 155</td>
<td>Introduction to Organic and Biological Chemistry Laboratory*</td>
<td>NEW</td>
<td></td>
</tr>
<tr>
<td>CHE 160</td>
<td>Preparation for General College Chemistry</td>
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<tr>
<td>CHE 170</td>
<td>General College Chemistry I*</td>
<td>CHE 105</td>
<td>General College Chemistry I</td>
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<tr>
<td>CHE 173</td>
<td>General College Chemistry I Workshop</td>
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<tr>
<td>CHE 175</td>
<td>General College Chemistry Laboratory I*</td>
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<td>General Chemistry Laboratory I</td>
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<td>CHE 180</td>
<td>General College Chemistry II*</td>
<td>CHE 107</td>
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<tr>
<td>CHE 185</td>
<td>General College Chemistry Laboratory II*</td>
<td>CHM 107</td>
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<td>Analytical Chemistry*</td>
<td>CHE 226</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>
<td>Organic Chemistry Laboratory I*</td>
<td>CHE 231</td>
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<td>Organic Chemistry II*</td>
<td>CHE 232</td>
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<td>Selected Topics in Chemistry Laboratory: (Topic)</td>
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<td>Laboratory Research in Chemistry: (Topic)</td>
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<td>CHEM 175</td>
<td>Applied General and Organic Chemistry</td>
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*General Education Status
### Appendix E - Crosswalks compiled 2010-11 through 2017-18

#### Agricultural Technology: 2011-2012

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<td>Introduction to Fertilizers and Soils</td>
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<td>AGR 130</td>
<td>Field Applications in Agriculture</td>
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<td>AGR 140</td>
<td>Issues in Agriculture</td>
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<td>AGR 150</td>
<td>Agriculture Power</td>
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<td>AGR 165</td>
<td>Agriculture Seminar</td>
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<tr>
<td>AGR 170</td>
<td>Introduction to Equipment, Machines, and Engines</td>
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<td>Introduction to Equipment, Machines, and Engines</td>
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<td>AGR 180</td>
<td>Agriculture Internship I</td>
<td>AG 180</td>
<td>Agriculture Internship I</td>
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<td>AGR 190</td>
<td>Agriculture Internship II</td>
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<td>Computers in the Agriculture Environment</td>
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<td>AGR 240</td>
<td>Introduction to Animal Science</td>
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<td>Introduction to Animal Science</td>
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<td>Introduction to Plants/Crop Production</td>
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#### Agriculture: 2017-2018

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<td>Agriculture Maintenance</td>
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<td>AGR 135</td>
<td>Herbaceous Plant Production</td>
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<td>Herbaceous Plant Production</td>
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<td>AGR 145</td>
<td>Technology in Agriculture</td>
<td>AGS 145</td>
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<td>AGR 155</td>
<td>Greenhouse Production</td>
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<td>Greenhouse Production</td>
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<td>AGR 175</td>
<td>Agriculture Marketing and Sales</td>
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<td>Agriculture Marketing and Sales</td>
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<td>AGR 235</td>
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### Art: 2010-2011

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<td>Introduction to Art</td>
<td>AE 272</td>
<td>Workshop in Art Education</td>
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<td>ART 104</td>
<td>Introduction to African Art</td>
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<td>ART 105</td>
<td>Ancient through Medieval Art History</td>
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<td>ART 106</td>
<td>Renaissance Through Modern Art History</td>
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<td>2-Dimensional Design</td>
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<td>Modern Art</td>
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### Biotechnology: 2011-2012

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**Collision Repair Technology: 2011-2012**

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**Computer Aided Drafting & Design: 2011-2012**

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372
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**Computer and Information Technologies: 2012-2013**

*(Previously listed under Computer Information Technology/Information Technology/
Computer Information Systems Technology)*

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**Computerized Manufacturing and Machining: 2012-2013**
*(Previously listed under Machine Tool Technology)*

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### Criminal Justice: 2011-2012

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### Dental Assisting/Dental Hygiene: 2011-2012

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### Digital Game and Simulation Design: 2012-2013

(Previously listed under Digital Game Design)

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### Education: 2011-2012

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### Education: 2013-2014

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### Emergency Medical Services – Paramedic: 2013-2014

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### Energy Systems: 2011-2012

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Engineering & Electronics Technology (Previously MIT: Engineering Technology): 2011-2012

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**Engineering and Electronics Technology: 2012-2013**

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**Foreign Language: 2010-2011**

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### General College Studies: 2010-2011

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### Global Studies: 2011-2012

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### Health Physics: 2011-2012

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### Industrial Safety: 2012-2013

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### Industrial Technology: 2012-2013

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## Logistics and Operations Management: 2013-2014

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## Masonry: 2011-2012

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## Math: 2012-2013

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### Medical Laboratory Technology: 2013-2014

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### Mining Technology: 2011-2012

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### Music: 2010-2011

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### Nuclear Medicine & Molecular Imaging: 2011-2012

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### Nursing (BCTC): 2011-2012

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### Philosophy: 2010-2011

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### Physics: 2010-2011

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**Political Science: 2010-2011**

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NOTE: POL 271 removed from general education status.

**Professional Studio Artist: 2011-2012**

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## Professional Studio Artist: 2013-2014

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## Radiography: 2011-2012

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**Reading: 2012-2013**

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<tbody>
<tr>
<td>RDG 185</td>
<td>College Reading</td>
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</table>

**Real Estate: 2011-2012**

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<th>New Courses</th>
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<tr>
<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>Appraising</td>
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<td>REA 221</td>
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### Religion: 2010-2011

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*Cross-listed with ANT 130

### Theatre: 2010-2011

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<td>Acting Techniques</td>
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<td>THA 150</td>
<td>Fundamentals of Production</td>
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<td>Production Practicum</td>
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<td>Acting for the Camera</td>
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### Transitional Mathematics: 2012-2013

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Agriculture Education Track– 010301706
Agriculture Equipment Mechanic Helper – 4706053109
Agriculture Technician – 4706054039
Agriculture Technology – 0103013059
Agriculture Technology Track – 010301403
Agriculture Technology Track – 010301707
Agriculture ................. 84
Agronomy – 0103013069
Agronomy Track – 010301404
Agronomy Track – 010301708
AHA Advanced Cardiac Life Support – 5139012050
Air Conditioning Technology - 4702017019
Air Conditioning Technology .... 86
Airframe and Power Plant Maintenance Technician - 4706084049
Airframe Maintenance Technician - 4706083069
All Colleges will utilize this placement guideline/policy as written
Alternative Energy – 1504993099
American Council on Education
Ammonia Refrigeration Fundamentals – 1504993160
Animation - 1003043029
Animation Track - 100304403
Animation Track - 100304701
Appalachian Studies - 0501223069
Appalachian Studies .... 88
Appeal...................................... 62
Appendix I: Assessment and Placement of
Dual Credit High School Students .......... 50
Appendix II: Course Placement for Older or Uncommon Measures....... 51
Appendix III: Council on Postsecondary Education College Readiness Indicators ........................................ 53
Applications of Geospatial Technology - 4507023029
Applied Engineering Technology ........ 69
Applied Process Technologies - 4103017029
Applied Process Technologies ........ 89
Applying for Admission .................. 44
Apprentice Cosmetology Instructor - 1204013049
Apprenticeship – 1503994059
Apprenticeship Studies - 3000007019
Apprenticeship Studies ........ 90
Apprenticeship Track – 150399701
Approved KCTCS Digital Literacy courses .................. 144
Approved KCTCS programs with Digital Literacy status ............... 78
ARC Cutter - 4805083099
ARC Welder - 4805083029
Architectural Designer – 1513013109
Architectural Technology - 1513017019
Architecture .... 91
Architectural Technology ........ 90
Articulation Agreements .................. 65
Arts and Humanities ........ 76
Ashland Community and Technical College ......... 6
Associate Degree-Seeking Students ........ 47
Associate in Applied Science (A.A.S.) Curricula .................. 81
Associate in Applied Science (AAS) ........ 72
Associate in Arts (AA) and Associate in Science (AS) ........ 71
Associate in Fine Arts (A.F.A.) Curricula .................. 222
Associate in Fine Arts (AFA) ........ 71
Audio Production – 1003043079
Audio Recording – 502013089
Auto Body/Collision Repair Technology .................. 91
Automated Industrial Controls Technician Track – 460302404
Automotive Systems Technology .................. 172

Index
Fundamentals of Mechatronics - 1500003219 ................................................. 169
Furniture Making Fundamentals - 5002013029 .......................................... 202

G

Gas Metal Arc Welder - 4805083149 ............................................................... 220
Gas Service Technician - 1509030409 .......................................................... 189
Gas Tungsten Arc Welder - 4805083159 ......................................................... 220
Gas Welder - 4805083039 ............................................................................ 220
Gateway Community and Technical College .............................................. 15
General Agricultural Studies - 0103014029 .................................................... 84
General Business - 5202013169 .................................................................. 107
General Education Certifications ................................................................. 63
General Education Requirements ............................................................... 75
General Occupational/Technical Studies - 3099957017 .................................. 155
General Occupational/Technical Studies .................................................... 155
General Provisions ...................................................................................... 45
General Sonography - 5109103089 ................................................................. 137
General Sonography Track - 510910706 ........................................................ 136
General Track – 110010720 .......................................................................... 119
General/Vascular Sonography Track – 510910705 ........................................ 137
Geospatial Technologies Track– 110101718 .................................................. 119
Geospatial Technology .............................................................................. 156
GIS/Unmanned Systems Specialist - 4706093059 ........................................ 210
GIS/Unmanned Systems Specialist Track - 470609704 .................................. 210
Global Studies - 3020013010 ........................................................................ 156
Global Studies - 3020017019 ........................................................................ 156
Global Studies ............................................................................................. 156
Grading System .......................................................................................... 68
Graduation Requirements ........................................................................... 70
Graduation With Honors ............................................................................ 70
Graphic Design – 1109013029 ..................................................................... 157
Graphic Design - 5004093119 ...................................................................... 214
Graphic Design - 5004094059 ...................................................................... 214
Graphic Design and Library Technology - 1108017019 .................................. 156
Graphic Design and Library Technology ...................................................... 156
Graphic Design Track - 110801702 ................................................................. 157
Graphic Design Track - 500409401 ................................................................. 214
Graphic Design Track - 500409701 ................................................................ 213
Green Building Technology - 4602013169 .................................................... 128
Greenhouse Operations - 0106013029 .......................................................... 162
Greenhouse Production – 010613019 ............................................................ 162
Grievance Procedures .................................................................................. 60
Guidelines for Advanced Placement Credit ............................................... 64
Guidelines for CLEP General Examinations ............................................... 86
Guidelines for International Baccalaureate (IB) ........................................... 67

H

Hazard Community and Technical College .................................................. 17
Hazardous Materials Technician - 1505073019 ............................................. 151
Health Care Foundations ........................................................................... 159
Health Care Foundations-Basic - 5139023209 .............................................. 158
Health Care Foundations-Intermediate - 5139023219 .................................. 158
Health Care Specialist – 5107073079 ........................................................... 158
Health Care Specialist ................................................................................ 158
Health Information Technology - 5107077019 .............................................. 159
Health Information Technology ................................................................... 159
Health Science Technology - 5100007019 .................................................... 160
Health Science Technology ......................................................................... 160
Healthcare Facilities Foundation - 4604013119 .......................................... 159
Healthcare Facilities Leadership - 4604014029 .......................................... 159
Healthcare Facilities Leadership – 4604017019 .......................................... 159
Healthcare Facilities Leadership ................................................................. 159
Heating, Ventilation, and Air Conditioning Mechanic - 4702014009 ............ 87
Heavy Duty Brake Mechanic - 4706053039 .................................................. 140
Heavy Duty Drive Train Mechanic - 4706053089 .......................................... 140
Heavy Equipment Operation ...................................................................... 161
Henderson Community College .................................................................. 19
Heritage ........................................................................................................ 76
Heritage ........................................................................................................ 78
High School Students .................................................................................. 44
Historic Preservation Technology – 3012013019 .......................................... 161
Historic Preservation Technology .............................................................. 161
History and Functions of KCTCS .................................................................. 4
HIT Coding - 5107073089 ............................................................................ 160
Hopkinsville Community College ............................................................... 21
Horseman Track - 010507402 ....................................................................... 153
Horseman Track - 010507702 ....................................................................... 152
Horticulture – 0103013079 .......................................................................... 86
Horticulture – 0106017019 .......................................................................... 161
Horticulture Sales - 0106013119 ................................................................ 162
Horticulture Track- 010301405 .................................................................... 85
Horticulture Track- 010301709 .................................................................... 85
Horticulture .................................................................................................. 161
Hospital Admissions Specialist - 5107163029 ............................................. 110
Hospitality Management - 5202013179 ....................................................... 107
Hospitality Management Track - 520201703 ................................................ 104
Human Resource Management - 5202013359 ............................................ 107
Human Resource Management Track - 520201715 ..................................... 104
Human Services- 4400007000 ..................................................................... 163
Human Services .......................................................................................... 163
Humanities .................................................................................................... 77, 78
Hybrid and Electric Vehicle Technician – 4706043139 .................................. 93
Hydraulic Excavator Operator - 4902023059 ............................................... 161

I

Implementation Manager Track – 510707303 ................................................................ 158
Implementation Support Specialist Track – 510707305 .................................. 158
Industrial Automation and Process Control Technician Track – 460302705 .................................................. 171
Industrial Automation and Process Control Technician Track – 460302405 ............ 173
Industrial Automation and Robotics Technician Track – 460302706 ................. 171
Industrial Automation and Robotics Technician Track -460302406 .................. 173
Industrial Chemical Technology - 4103017019 ........................................... 164
Industrial Chemical Technology .................................................................... 164
Industrial Electrician Track - 460302401 ....................................................... 173
Industrial Electrician Track - 460302701 ....................................................... 171
Industrial Electronics – 150399407 ................................................................ 147
Industrial Electronics Technician I – 1503993129 .......................................... 149
Industrial Electronics Technician II – 1503993139 .......................................... 149
Industrial Maintenance Electrical Mechanic - 4703033159 ................................ 179
Industrial Maintenance Machinists Mechanic - 4703033119 .......................... 179
Industrial Maintenance Mechanic Level I - 4703033139 .............................. 179
Industrial Maintenance Mechanic Level II - 4703033149 .............................. 179
Industrial Maintenance Robotics Technician - 4703033239 .......................... 180
Industrial Maintenance Technician - 4703034049 ........................................ 179
Industrial Maintenance Technology - 4703037019 ...................................... 176
Industrial Maintenance Track- 470303701 ..................................................... 177
Industrial Mechanic – 1504993140 ............................................................... 82
Industrial Refrigeration – 1504993140 ......................................................... 82
Industrial Track – 150399704 ........................................................................ 145
Industrial Worker - 1507013019 .................................................................. 90
Industry Standard Certification Examinations .............................................. 67
Inexperienced Surface Trainee – 1509013149 .............................................. 187
Inexperienced Underground Trainee – 1509013159
Informatics Advanced – 1101013509
Informatics Generalist – 1101013499
Informatics Programming – 1101013489
Informatics Track – 110101719
Information Security Specialist – 1101013339
Information Security Track - 110101712
Information Technology
Instrumentation – 1503984099
Instrumentation Technician – 1503992499
Instrumentation Track – 150399709
Insurance and Risk Management – 5217013019
Insurance Risk Management
Integrated Engineering Technology – 1442014019
Integrated Engineering Technology – 1442017019
Integrated Engineering Technology
Integrated Manufacturing Technologies - 1506133089
Integrated Office Skills - 5204023059
Interdisciplinary Early Childhood Education - 1907094019
Interdisciplinary Early Childhood Education - 1907097019
Interdisciplinary Early Childhood Education Technical Studies - 1907093019
Interdisciplinary Early Childhood Education
Inter-KCTCS College Student Advisory Council
International Logistics – 5202033049
International Students
Internet Technologies Track - 110101710
Introduction to Aviation Electronics – 4706083099
Introduction
Invasive Cardiology – 5109153019
Invasive Cardiology

J

Jefferson Community and Technical College
Jewelry Studio - 5002013069
Jewelry/Metals Fundamentals - 5002013019
Jewelry/Metals Technician - 5002014029
Jewelry/Metals Track - 500201702
Jockey Track - 010507401
Jockey Track - 010507701

K

KCTCS and College Scholarships for Kentucky Residents
KCTCS Assessment and Placement Policy
KCTCS Board of Regents
KCTCS College Codes
KCTCS Leadership
KCTCS Online Learn by Term – Semester-based Online Programs
KCTCS Online Learn by Term Courses
KCTCS Online Learn on Demand Programs
KCTCS Online Learn on Demand
KCTCS Online
Kentucky Child Care Provider - 1907093049
Kentucky Community and Technical College Guarantee
Kentucky Medication Aide - 5139012030
Kentucky Medication Aide - 5139012030
Kentucky Skills U (Formerly KY Adult Education Services)
Klin Building for Professional Potters - 5007113029

L

Landscape Installation - 0106013049
Landscape Planning - 0106013059
Landscape Technology - 0106014009
Last Day to Enter an Organized Class
Law Enforcement - 4301033049
Law Enforcement Track - 430103702
Lawn Maintenance - 0106013069
Leakage and Corrosion Control Technician - 1509033020
Learning Laboratories
Legal Administrative Track - 520402705
Legal Office Assistant - 5204024059
Legal Receptionist - 5204023149
Libraries
Library Information Technology Track - 1108013019
Library Information Technology Track - 110801704
Life Coach – 1311013029
Life Coach
Lineman – 4103013049
Lineman Technology Track - 410301703
Logistics and Operations Management – 5202037019
Logistics and Operations Management
Logistics Management – 5202033019
Logistics Operations – 5202033079
Logistics Quality Technician – 5202033069
Logistics Technology – 5202033039

M

Machine Tool Operator I - 4805033109
Machine Tool Operator II - 4805033119
Machinist - 4805034079
Madisonville Community College
Magnetic Resonance Imaging Track – 510911303
Maintenance Plumber - 4605033049
Maintenance Technician – 1503993059
Management - 5202013209
Management Track - 520201708
Mandatory Student Fee
Manual Transmission/Drive Train Technician - 4706043059
Manufacturing Engineering Technology - 1506137029
Manufacturing Engineering Technology
Manufacturing Industrial Technology
Manufacturing Process Operations – 4805013019
Marine Culinary – 4903993039
Marine Culinary Management Track – 490399705
Marine Engineering – 4903993049
Marine Engineering Track – 490399702
Marine Industry - 4903993029
Marine Logistics Operations Track – 490399703
Marine Technology – 4903997019
Marine Technology Business – 4903993019
Marine Technology
Marketing and Retailing Track – 520201719
Masonry
Massage Therapy – 5135013019
Massage Therapy Technology – 5135017019
Massage Therapy Technology
Mathematics Placement Levels
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Mathematics Placement
Maysville Community and Technical College
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<td>Medicaid Nurse Aide - 5139012020</td>
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<td>Message from Dr. Jay Box, KCTCS President</td>
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<td>Mission Statement</td>
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<td>Outside Plant Technician - 1505033039</td>
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<td>Overview</td>
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<td>Owensboro Community and Technical College</td>
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<td>Pathway 2 - 510806704</td>
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</table>
Voice and Data Wiring Installer Level I - 4603023099 ........................................ 175
Voice and Data Wiring Installer Level II - 4603023109 ........................................ 175
Voice and Data Wiring Technician - 4603023119 ................................................ 175

W

Waste Processing Attendant – 1505073029 ............................................................. 151
Wastewater Treatment Plant Attendant – 1505073039 ............................................ 151
Wastewater Treatment Plant Operator - 1505073049 .............................................. 151
Water Treatment Plant Attendant – 1505073059 ................................................... 151
Water Treatment Plant Operator - 1505073069 ...................................................... 151
Web Administration - 1101013449 ....................................................................... 124
Web Design - 1003043039 ...................................................................................... 217
Web Design Track - 100304402 .............................................................................. 217
Web Design Track - 100304702 .............................................................................. 216
Web Programming - 1101013439 .......................................................................... 124
Webpage Design Track - 500406704 ...................................................................... 212

Welder Helper - 4805083129 .................................................................................. 221
Welding Automation - 4805083169 ......................................................................... 221
Welding Technology - 4805087019 .......................................................................... 219
Welding Technology ................................................................................................. 219
West Kentucky Community and Technical College ................................................. 41
Wheelhouse Management Track – 490399701 ...................................................... 181
Wind System Technologies – 1505033059 .............................................................. 144
Women’s and Gender Studies – 0502073019 ......................................................... 221
Women’s and Gender Studies ............................................................................... 221
Wood Furniture Studio - 5002013059 ................................................................. 202
Wood Studio Technician - 5002014019 ................................................................. 202
Wood/Furniture Design Track - 500201701 ........................................................... 201
Work and Learn ....................................................................................................... 60
Work Based Learning Experiences ........................................................................... 67
Workplace Safety Specialist – 1507993010 ............................................................ 222
Workplace Safety Specialist .................................................................................... 222
Written Communication ......................................................................................... 75
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President

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